	Sample paper – 2022-23	Marks					
	Accountancy						
	Class – XI						
	Time allowed: 3 Hours Max. Marks: 80						
	General Instructions						
	1. Question Paper is divided into two parts. Part – A (56 Marks) and Part – B (24						
	Marks)						
	2. Both parts are compulsory						
	3 All parts of the question should be attempted at one place						
	4. Write down the question number clearly before attempting the question						
	4. White down the question number clearly before attempting the question						
	5. 25% of the marks allotted to the question would be deducted for not using correct						
	format, narrations and working notes.						
	Nothing should be written on the Question paper						
	7. Scheme of choice						
	i. 1 Mark – 7 questions (2 from unit 1, 4 from unit 2 and 1 from unit 3)						
	ii. 3 Mark – 2 questions (1 from unit 1 and 1 from unit 2)						
	iii. 4 Mark – 1 question (1 from unit 2)						
	iv. 6 Mark – 2 questions (1 from unit 2 and 1 from unit 3)						
Q.No.	PART – A	Marks					
1	Accounting standards are applicable to purely Charitable organisations. Justify the statement	1					
2	State any two advantages of GST	1					
3	Choose the correct sequence of accounting process	1					
	A. Vouchers → Ledger → Recording → Identification → Trial balance and Financial						
	statements						
	B. Trial balance and Financial statements → Ledger → Recording → Voucher →						
	Identification						
	C. Identification →Voucher →Recording →Ledger →Trial balance and Financial						
	statements						
	D. Identification → Voucher →Ledger →Recording →Trial balance and Financial						
	statements						
4	Alka is running a stationery business. She purchased Books, Registers and Notebooks etc. on credit	1					
	for `₹10,000. The transaction is supported by purchase invoice. Identify the qualitative feature of						
	Accounting information from the given statement.						
4	Or	1					
4	much investment is to be made outside the business. Identify the qualitative feature of Accounting	1					
	information from the given statement						
5	During the accounting period 2021-22. Udit had total sales of ₹6.00.000, out of which 2/3 rd is for	1					
	cash and balance on a credit for 2 months. The total expenses were $₹2.80,000,000$ out of which $₹70,000$	-					
	are still outstanding. He also paid $₹10,000$ (apart from the $₹2,80,000$ given previously) for expenses						
	related to 2023-24. Calculate his income as per 'Cash Basis' of accounting.						
	Or						
5	In the financial year 2021-22, Aman's cash sales were ₹6.00.000 and credit sales were 1/3 of cash	1					
	sales. The total expenses paid by him were ₹4,40,000 out of which ₹20,000 pertained to 2022-23.						
	Expenses of ₹30,000 were still to be paid. Determine Aman's income as per 'Accrual' basis of						
	accounting						
6	Find the correct statement	1					
	A. Decrease in income is credited						
	B. Increase in expenses is credited						

	C. Increase in revenue is debited							
	D. Increase in capital is credited							
7	Namita has returned goods worth ₹25,900 to Na	amrita. Whic	ch 'Source document' will be prepared	1				
	by Namrita?							
	A. Invoice							
	B. Debit note							
	C. Credit note							
	D. Cash Memo							
	A transaction with one debit and one credit in a simple transaction and the accounting vouchors							
8	A transaction with one debit and one credit in a simple transaction and the accounting vouchers							
	prepared for such transaction is known as							
9	If the transaction is properly analysed and record	lod.		1				
	Λ Only two accounts will be used to record the transaction							
	 A. Only two accounts will be used to record transaction B. One account will be used to record transaction 							
	C One account balance will increase and ar	other will de	ecrease					
	D. Total amount debited will be equal to tot	tal amount ci	redited					
10	Match the following			1				
	Column 1		Column 2					
	A Book of legal evidence	1	Ledger					
	B Are balanced and carried forward	2	Temporary accounts					
	to next accounting period							
	C Book of analytical records	3	Journal					
	D Closed at the end of accounting	4	Permanent accounts					
	period by transferring them to							
	Income statement							
	Options							
	A. a1, b2, c3, d4							
	B. a3, b4, c1, d2							
	C. a4, b3, c2, d1							
	D. a3, b2, c4, d1							
11	Currile ante e definite sure even month from	+		1				
11	balance is found at the end of each month to res	the organisa	month	T				
	The amount to be naid to Sunila at the beginning	of every mo	nth is known as amount					
12	The following balances appeared in the books of	Anil on 1/4/2	2022	1				
	Assets:	- , ,						
	> Cash ₹4,000							
	> Bank ₹10,000							
	Stock ₹27,000							
	> B/R ₹23,500							
	➢ Boiler and Machinery ₹30,000							
	Liabilities:							
	> B/P ₹10,000							
	➤ Capital ₹1,00,000							
	Pass the opening Journal entry							
		<u></u>						
12	The following belonger encourse in the baseline for	Or Sanchita ar	1/4/2022	1				
12	Assets:	Sanchita on	1/4/2022	1 ¹				
	> Cash ₹30,000							
	 > Cash (50,000 > Bank ₹10,000 							
	 Stock ₹80,000 							
	Furniture₹7.200							
	Furniture₹7,200							

	> Debtors ₹48,000	
	Liabilities:	
	➢ Bank Ioan₹20,000	
	➤ Creditors₹25,000	
	Pass the opening Journal entry	
13	Statement 1: Depreciation on Fixed asset is an expense and is debited to Profit & Loss a/c	1
	Statement 2 : Depreciation cannot be provided in case of loss in a Financial year	
	A Only statement 1 is true and 2 is false	
	A. Only statement 2 is true and 1 is false	
	C Both statement 1 and 2 are true	
	D. Both statement 1 and 2 are false	
	Or	
13	Assertion (A): Fall in the value of 'Copyright' from ₹50000 to ₹20000 over 3 years is 'Amortization'	1
	Reason (R): The term 'Amortization' is used to write off Intangible FixedAssets over their useful life	
	Which of the following is correct?	
	A. Both A and R are correct and R is the correct explanation of A	
	B. Both A and R are correct but R is not the correct explanation of A	
	C. A is True but R is False	
	D. A IS Faise but R IS True	
14	Ram is running a cloth business in Delbi. He purchased a machinery on credit for ₹1.00.000. Identify	1
14	the 'Subsidiary Book' where it is to be recorded/shown	1
	Or	
14	Sita is running a business of Electrical goods in Haryana. She sold Electronic goods on credit to	1
	Laxman for ₹10,000. Identify the 'Subsidiary Book' where it is to be recorded/shown.	
15	Classify the following error into:	1
	A. Error of omission	
	B. Error of commission	
	C. Compensating error	
	D. Effort of Principle Transaction (Error): Sale of goods on credit to Shilna for $\neq 620$ was recorded in Sales book but not	
	nosted to Ledger	
	Or	
15	Classify the following error into:	1
	A. Error of omission	
	B. Error of commission	
	C. Compensating error	
	D. Error of Principle	
	Transaction: Veenu's a/c was debited in excess by `1080 while Veena's a/c and Venu's a/c were	
	debited by 7500 and 7580 less respectively.	
16	Satvam is a talented fashion designer and has created his own fashion label 'Eashionista'. He had	3
10	$\overline{10.00.000}$ in his savings a/c and decided to launch his label. He thought that his funds were	
	insufficient and he borrowed ₹5.00.000 from his father and took a loan of ₹10.00.000 from SBI. He	
	rented a shop in 'City Mall' and spent ₹3,00,000 in furnishing it. He bought dress materials and	
	other consumables from Shivam for ₹5,00,000 and paid 40% amount immediately. Mall	
	maintenance expenses were ₹15,000 of which he paid ₹5,000 immediately.	
		1
	Calculate the following from the above information:	
	Calculate the following from the above information: 1. Creditors	

	3. Outstanding expenses					
	Or					
16	On 1/1/2022 Rajat started a stationery business and invested ₹15,00,000 from his personal sources and he took a loan of ₹20,00,000 from his friend Sambhav @ 12% p.a. interest. He rented a shop in Sadar bazar at a rent or ₹10,000 p.m. and paid ₹60,000 to the landlord Mr. Manu as rent for 6 months. He purchased goods of ₹10,00,000 from Raghav and paid 50% amount immediately. He sold goods costing ₹1,00,000 for ₹1,20,000 to Garima for cash. He also sold goods costing ₹50,000 for ₹75,000 to Nishant on a credit of 15 days. He also sold scrap for ₹2,000 to Monu (kabadiwala) who promise to pay the amount after 7 days. He had ₹5,00,000 as surplus funds and purchased shares of Reliance limited with the surplus funds. He also earned a dividend from the shares of Reliance limited. The books are closed on 31 st March each year. Calculate the following from the above case: Debtors Prepaid expenses Investments 					
17	 Rectify the following errors in the books of Tripti 1. Machinery purchased from Khyati for ₹50,000 was recorded in purchase book as ₹5,00,000 2. Goods purchased from Aarti for ₹10,000 was debited to Aarti in the Ledger 3. Sales book was overcast by ₹5,000 					
18	Prepare Accounting equation from the following transactions of Karvy I. The following balances appeared in the books of Karvy on 1/1/22 ✓ Cash in hand ₹5,000 ✓ Furniture ₹10,000 ✓ Stock ₹5,000 ✓ Mehak (Debtor) ₹8,000 ✓ Outstanding salary ₹2,000 ✓ Garima (Creditor) ₹3,000 II. Mehak paid ₹5,000 on account III. Depreciate furniture by ₹1,000 IV. Paid insurance premium in advance ₹1,000 V. Paid ₹2000 for outstanding salary					
19	Prepare a Trial Balance from the balances extracted from the books of Archit as at 31/3/2022	3				
20	ParticularsSales3,00,000Closing stock (Unadjusted)25,000Salary and wages5,000Outstanding advertising expenses5,000Investment2,00,000Opening stock50,000Purchases2,00,000Discount received1,500Carriage inwards1,500Interest on investments20,000Capital1,05,000	3				
20	Capital 1,05,000 The following information are given by Sunita traders 3 1. A machine is estimated to run for 10 years and the total amount of repairs is estimated to be ₹10,000 during its life time. It was decided that ₹1000 will be debited to Profit & Loss a/c 3 2. There is another machine in the organisation that need to be replaced after 10 years. For replacing the machinery, a fund is created of ₹10,00,000 from its profits and this fund is supposed to be invested in securities market					

	a) Identify which one is 'Reserve' and which one is 'Provision'	
	 b) Distinguish between 'Reserves' and 'Provisions' on the basis of presentation in the Balance sheet 	
	Or	
20	 Sunil traders has written off excess depreciation on its fixed assets. Identify and explain the reserve involve in this case. Distinguish between 'Revenue reserve' and 'Capital reserve' on the basis of 'Source of creation' 	3 (2+1)
21	 Identify and explain the AccountingPrinciples/Concepts/Conventions followed or violated in the following situations: 'Puri and Sons' is following the policy of valuing the closing stock at cost price irrespective of the fact that its market price is significantly lower than the cost price 'Jain and Sons' is in Garments business. Their accountant prepared a single set of Financial statements for the time period from 1/4/2019 to 31/3/21 	4 (2+2)
22	 From the following information provided by Krish, prepare a Bank Reconciliation Statement as on 31/8/22 1. Balance as per Cash Book ₹10,000 (Credit) 2. Krish had issued cheques of ₹21,000 during August 2022 but cheques of only ₹15,000 were presented for payment in August 3. Direct deposit in bank by customer 'Aashna' ₹10,000 was not recorded in Cash book 4. Debit side of cash book was overcast by ₹2,000 	4
	Or	
22	 Prepare a Bank reconciliation statement as on 30/9/2022 from the information provided by Annwesha Credit balance as per pass book ₹5,000 Annwesha deposited cheques of ₹`10,000 in the month of September 2022 but they were recorded in cash column of cash book Insurance premium ₹8,000 paid by bank as per the standing instructions of Annwesha was not recorded in cash book Bank credited ₹4,000 by mistake and this was not reflected in cash book. 	4
23	On 1st August 2019, Shizuka Ltd. purchased a machinery for Rs.3,00,000. On 1st November, 2020 another machinery was purchased for Rs.1,80,000. On 1st July 2021, the machine purchased on 1st August, 2019 was sold for Rs. 1,68,000 and on the same date a fresh machinery was purchased for Rs.2,00,000. Depreciation was provided @ 10% p.a. on the Reducing Balance Method. Books are closed on 31st March every year. You are required to prepare Machinery Account and Provision for Depreciation Account for three years ending 31st March, 2022.	6
24	Record the following transactions in the double column Cash Book of 'Vertika'. Prepare Journal proper if required. 1/1/22 Cash in hand ₹2,500 and at bank ₹25,000 2/1/22 Received a cheque of ₹10,000 from Jeetansh 3/1/22 Paid Salaries by cheque ₹5,000 and cash ₹2000 4/1/22 Dividend collected by bank ₹2,500 5/1/22 Cheque received from Jeetansh deposited in bank 6/1/22 Withdrew ₹2,500 from bank for office use	6
25	 Journalise the following transactions in the books of Mohan assuming CGST and SGST @6% each 1. Purchased goods from Chetan of list price ₹50,000 less 10% trade discount 2. Sold goods to Pankaj of list price ₹20,000 less 5% trade discount 3. Purchased machinery costing ₹1,25,000 	

	 Pankaj returned goods of list price ₹3,000 	
	5. Mohan withdraws ₹5,000 from bank and goods of purchase price ₹5,000 for personal use	
	6. Provide 10% depreciation on machinery	6
	Or	
25	Journalise the following transactions in the book of M/S Hiralal and prepare Ledger accounts of Harshit and Purchase	
	 Sold goods to Harshit of list price ₹30,000 and to Harshita of list price ₹50,000 at a trade discount of 10% on 1st April, 2022. 10% cash discount may be availed if they make the payment on or before 15th April, 2022. Harshit gave a cash to clear his dues on 14th April, 2022 and Harshita paid for her dues by cheque on 28th April, 2022 Mohan Lal and Sons sold goods to us of list price ₹90,000 @20% trade discount. He accepted 1/3rd of the payment through a draft and they allowed a cash discount of 7.5% on 28th April 	6
	PART – B	
26	On 25 th March, 2022 goods worth ₹30,000 were destroyed by fire. The stock was fully insured; however, the insurance company admitted a claim of ₹20,000 only. How will it be treated in the final accounts of the year 2021-22	1
27	Calculate Gross profit if Sales are ₹4,00,000 and the rate of Gross profit is $33\frac{1}{3}\%$ on cost of goods sold.	1
20	Rearrange the following accets in order of (Liquidity)	
20	i. Computer software	
	ii. Debtors	
	iii. Stock	
	iv. Plant	
	Options:	
	A. (i), (ii), (iii), (iv)	
	B. (iii), (iv), (i), (ii)	
	C. (ii), (iii), (iv), (i)	
	D. (iv), (i), (iii), (ii)	1
29	Royalty paid by Publishing house to the author of the book is charged to Trading a/c. Is it correct	1
	treatment? Justify	
30	'A' limited is business organisation based in Haryana. During the year 2021-22 ₹6,000 were spent	1
	on repairing the machines. They also spent ₹25,000 on annual white washing of the building.	
	Identify the expenditure/expenditures and also calculate the amount for the identified	
	expenditure/expenditures	
	Or	
30	'B' limited spent ₹1800 on freight of a newly purchased machinery and ₹20,000 towards additions	1
	to the machinery. Identify the expenditure/expenditures and also calculate the amount for the	
	identified expenditure/expenditures	
31	Compute 'Operating Profit' from the following information	
	✓ Gross profit ₹1,00,000	
	✓ Salaries ₹5,000	
	✓ Audit fees ₹2,000	
	✓ Lighting ₹2.500	
	✓ Gain on sale of machinery ₹7 700	
	✓ Insurance premium ₹3,400	
	\checkmark Donations \neq 1 200	
	$\sqrt{1000}$ Loss on colo of furnituro ∓ 10.900	
	$\checkmark \text{Advortisement } \exists 8,200$	
		1

	✓ Bad debts ₹4,800 3 ✓ Interest on loan ₹3,600 3								
32	The following balances appeared in the Trial Balance of M	1/s Doraemon trac	lers as at 31/3/2022						
52	✓ Debtors ₹6.10.000	in s boracinon trac	1015 05 01 51/ 5/ 2022						
	✓ Bad debts ₹6,000								
	✓ Provision for bad debts ₹40,000								
	Further bad debts were ₹10,000 and they decided to maintain a provision for bad debts @10%.								
	Pass the necessary Journal entries								
33	Pass necessary adjustment entries and closing entries for	the following adju	ustments						
	1. Goods worth ₹9,000 were used by proprietor for	personal use							
	2. Sign board costing ₹4,000 was included in Advert	ising expenses of	₹25,000						
	3. Private purchases ₹6,000 were paid from persona	al saving bank a/c	of the proprietor						
	4. Fire insurance premium ₹1,800 paid during the	year included <1,	200 paid on 1/7/2021 to						
	5 Provide for manager commission @10 % of Net	profit after chargi	a such commission. The						
	net profit transferred to capital was ₹20,623	pront after chargi		6					
34	Following is the Trial Balance of Mrs. Gupta as at 31/3/22	2							
	Particulars	Debit Balance	Credit Balance						
	Drawings and Capital	17,600	1,00,000						
	Purchase and Sales	80,000	1,40,370						
	Returns	4,240	2,820						
	Stock (1/4/21)	11,460							
	Bad debts	1,400							
	Provision for bad debts		3,240						
	Rates and Insurance	1,300							
	Discount		190						
	Bills receivable	1,240							
	Wages	6,280							
	Building	25,000							
	Rent		2,100						
	Freight on sales	16,940							
	Carriage	2,310							
	Office expenses	1,340							
	Printing and stationery	660							
	Postage and Telegram	820							
	Deptors and Creditors	62,070	18,920						
	Cash at heal	12,400							
	Cash at Dank	2,210							
		9,870							
	Furniture	3,500		6					
		7,000	2 67 640	6					
	Prenare Trading and Profit & Loss a/a only for the year of	<u>2,07,040</u>	<u>2,07,040</u>						
	1 Depreciate old Building by ₹625 and the addition	to Building @2%;	and Eurniture at 5%						
	 Write off further bad debts ₹570 and increase pr 	ovision for had del	ots to 6% of Debtors						
	 Rent receivable is ₹200 								
	 Stock was valued at ₹14,290 (cost) whereas its n 	 Stock was valued at ₹14.290 (cost) whereas its market price was ₹15.290 							
	Or	· · · · · · · · · · · · · · · · · · ·		1					
34	Following is the Trial Balance of M/s Divya as at 31/3/22								
	Particulars	Debit Balance	Credit Balance						
		•	、						

Opening stock	40,000	
Rent	2,000	
Capital		2,70,000
Creditors		50,000
Plant and Machinery	1,20,000	
Bill payable		50,000
Land and Building	2,55,000	
5% Loan		1,10,000
Power	1,500	
Discount		1,500
Purchases	75,000	
Sales		1,50,000
Returns	2,500	
Provision for bad debts		1,000
Internet and Postage	400	
General reserve		50,000
Wages	4,500	
Salaries	2,500	
Insurance	3,200	
Repairs	3,000	
Legal charges	6,400	
Debtors	75,000	
4% Investments	65,000	
Commission	2,480	
Drawings	20,020	
Bad debts	2,000	
	<u>6,82,500</u>	<u>6,82,500</u>
djustments: 1. Closing stock ₹35,500 2. Depreciate Plant and Machinery by 5% and	Land and Building by 6%	
 Write off further bad debts ₹2.500 and disc 	count on Debtors is ₹1.450 a	nd Provision fo
debts is to be maintained @5%		

- 4. Salaries outstanding ₹200, Wages due ₹100 and Unexpired Insurance ₹500
- 5. Gross Profit was calculated to be₹59,900 for the year ended 31/3/2022
- 6. Prepare Profit &Loss a/c and Position Statement only

	Sample paper – 2022-23							Mar
	Accountancy							ks
	Class – XI							
		Mark	ng Scl	heme				
Q.No.		P	ART –	Α				
1	Accountir	ng Standards are not applicable	to	ourely Charitable	organisations as	these	1	1
	organisat	ions doesn't have any commercial	indus	, trial and business	activity			
2	1. G	ST has reduced compliance cost a	nd inc	reased the volunt	ary compliance		1/2	1
	2. G	ST has removed the cascading effe	ect on	taxation			each	
	Or any ot	her relevant answer						
2	C						1	1
3	C						T	1
4	Reliability	,					1	1
	inclusion of						-	-
			Or					
4	Relevance	5					1	1
5	Cash basi	S					1	1
	Cash sale	s ₹4,00,	000					
	Less: Expe	enses						
	Cash expe	enses paid2,80,000						
	Less: still	O/S 70,000	000)					
	Add: Prep	$\frac{10,000}{10,000} = 1.80$	000)					
	Netresui	- 1 <u>,80</u> ,	000					
			Or					
5	Accrual b	asis					1	
	Total reve	enue (Cash + Credit)	8,00,0	000				1
	Less: Expe	enses						
	Cash Paid	4,40,000						
	Less: Prep	baid 20,000						
	Add: Outs	standing <u>30,000</u> (4	1,50,0	00)				
	Net Incon	ne =	3,50,0	00				
C	D						1	1
0	U						T	T
7	C						1	1
, í	C						-	-
8	Transactio	on Voucher					1	1
9	D						1	1
10	A						1	1
11	Imprest						1	1
12			lour	nal of Anil			1	1
12	Dato	Darticulare	Jour		Cr Amount	1	1 1	1
		Faiticuldis		DI. AIIIUUIII	CI. AIIIOUIII			
L						1		

	1/4/22	Cash a/c Dr.		4,000			
		Bank a/c Dr.		10,000			
		Stock a/c Dr.		27.000			
		B/B a/c Dr.		23,500			
		Boiler and Machinery a/c Dr		30,000			
		Goodwill a/c (B/E)		15 500			
				15,500	10.000		
		To B/P d/C			1 00 000		
		lo Capital a/c			1,00,000		
		(Previous year balances brought					
		forward)					
10			Or				1
12	Data	Darticulars		Dr Amount	Cr. Amount	L 1	1
	Date	Farticulars		Dr. Aniount	Cr. Alliount		
	1/4/22	Cash a/c Dr.		30,000			
		Bank a/c Dr		10,000			
		Stock a/c Dr		80,000			
		Eurpiture a/c Dr.		30,000			
		Debters a/c DI.		7,200			
		Debtors a/c Dr.		48,000			
		To Bank Loan a/c			20,000		
		To Creditors a/c			25,000		
		To Capital a/c (B/F)			1,30,200		
		(Previous year balances brought					
		forward)					
13	A. C	only statement 1 is true and 2 is fa	lse			1	1
12			Or		C •		-
13	A. B	oth A and R are correct and R is tr	ie cori	rect explanation o	f A	1	1
14	lournal P	roper				1	1
14	Joannan	lopel				1	1
			Or				
14	Sales Boo	k				1	1
15	A. E	rror of Omission				1	1
			Or				
15	C. C	ompensating error				1	1
16	1. C	reditors – Shivam - ₹3,00,000				1	3
	2. L	enders – Father ₹5,00,000 and SB	₹10,0	0,000 (Total `15,0	0,000)	1	
	3. C	outstanding expenses – Mall main	enand	ce ₹10,000		1	
			Or				
16	1. D	ebtors – Nishant ₹75,000				1	3
	2. P	repaid expenses – Rent for 3 mon	ths ₹3	0,000		1	
	3. lr	nvestments – Shares of Reliance li	mited	₹5,00,000		1	
17		Rectifying Jou	rnal e	ntries in the book	sof Tripti		
	Date	Particulars	LF	Dr. Amount	Cr. Amount		
	1	iviachinery a/c Dr.		50,000			
		Khyati Dr.		4,50,000		1	
		To Purchase a/c			5,00,000		

		(Machinery pu	rchased from							
	Khyati for `50,000 was recorded									
		in purchase boo	n purchase book as `5,00,000							
		now rectified)								
	2 Suspense a/c Dr.				20,000					
		To Aarti				20,000				
		(Goods purchas	ed from Aarti							
		for `10,000 was	debited to Aarti					1	3	
		in the Ledger no	w rectified)							
	3	Sales a/c	Dr.		5,000					
		To Suspense a	a/c			5,000				
		(Sales book wa	as overcast by					1		
		`5,000 now recti	fied)							
18			Account	ing eq	uation			½ x 6	3	
	S.No.	Transactions	Assets			= Capital+Liabilities				
			Cash+ Furniture+ St	ock+ M	lehak+ prepaid Ins. = o	/s salary+Garima+Cap	pital			
	1.	Balances brought forward	5000+10000+ 50	000+ 8	000+ 0 = 2	2000+ 3000+ 23	000			
	2.	Mehak paid on	5000	(50	000)					
		New Equation	10000 10000 50	00 30	000 0 = 20	000 3000 2300	0			
	3.	Depreciation on	(1000)			(100	00)			
		New Equation	10000 9000 50	00 3	000 0 = 20	00 3000 2200	0			
	4.	Insurance premium	(1000)		1000 = 20	000 3000 2200	00			
		paid in advance								
	F	New Equation	9000 9000 500	00 30	$\frac{00 1000}{-(2)}$	000 <u>3000 2200</u> 000)	00			
	Э.	outstanding salary	(2000)		- (2	000)				
		New Equation	7000 9000 5000 3000 1000 = 0 3000 22000				000			
		Total	25,000		25,000					
19			Trial Bala	ince of	f Archit					
	As at 31/3/2022									
	Particulars Debit Balance Credit									
						``				
	Opening	g stock			50,000			¼ X		
	Sales					3,00,000)	10 =		
	Purchas	e			2,00,000			2.5		
	Discoun	it received				1,500)	1/		
	Salary a	nd wages			5,000)		72 for	3	
	Outstan	iding advertising e	xpenses			5,000)	capital	5	
	Investm	ients	2,00,000							
	Carriage	e inwards	1,500)						
	Interest	on investments			20,000)				
	Capital Suspense A/c (B/F)					1,05,000)			
						25,000)			
	Total				<u>4,56,500</u>	<u>4,56,500</u>	2			
	Closing s	tock = `25,000								

20	1. Pr	ovisi	on					1	3
	2. Re	serve	Diffe	erence betw	veen			1	
	Basis		Reserves	Pro	visions				
	Presentat	ion	It is shown on the liabili	ties It is	s usually	shown as a subtrac	tion from		
	in Balance	е	side	the	asset si	de or it may be sho	wn as a	1	
	Sheet			sep	oarate ite	em on the liabilities	side		
				Or					
20	1. Se	cret r	eserve is created					1	
	Secret rese	erve:							
	It is the on	e whi	ch is not disclosed by the	Balance sh	eet. The	se reserves are cre	ated by	1	
	snowing pr	OTITS	at a figure much lower th I liabilities at a bigber figu	ian the actu	iai profit	and by snowing as	sets at a		
	2	e ant	a nabilities at a fligher figt	ii e					
	2.		Diffe	rence betw	veen				
	Basis		Revenue Reserves			Capital Reserve	es	7	
	Source	The	se are created out of reve	enue	These	are created out of	capital		3
	of	pro	fits which arise from the r	normal	profits	that do not arise in	normal		
	creation	creation operating activities.						1	
22	 valued at either cost price or market value whichever is lower. It provides guidance for recording the transactions based on the policy of 'Play safe' (Provide for all possible future losses) II. The accountant didn't follow the principle of 'Accounting Period'. It refers to the span of time at the end of which the financial statements of an enterprise are prepared to know its financial and profitability position. As per law, these financial statements are prepared at end of each financial year (31st March every year) 						e ll re 2 al	4	
22			Bank Reconciliation S	tatement a	is on Au	gust 31, 2022	Marka		
	Overdraft	t as n	er Cash book	Plus iter	115 (~)		1/2 1/2		4
	Cheques	issue	d but not presented		6.000	10,000	1		
	Direct de	posit	in bank by customer		10,000		1		
	Debit side	ofc	ash hook overcast			2 000	1		
	Credit ba	lance	as per Pass book			4 000	1/2		
		lance			16.000	16.000	72		
							<u> </u>		
22			Pank Deconciliation 6	Or		arch 21 2020			
22			Bank Reconciliation 3	Plus itor	as on ivia ne (≢)	Irch 31, 2020 Minus items (₹)	Marks		
	Credit ba	lance	as ner Pass hook	Flus iter	5 000	winds items (x)	1/2 1/2		
	Cheques	depo	sited but not recorded		3,000	10,000	1		4
	in cash bo	ook							
	Insurance	e prer	nium paid by bank		8,000		1		
	airectly	odi+ L	wheek			4 000			
	Credit bal	lanco	as ner Cash hook		1 000	4,000	1/2		
		ance		1	14.000	14.000	12		
	L			1	<u></u>	14,000	<u> </u>		

Dr. MAC			_		Cr.	
Date	Particulars	Amount	Date	Particulars	Amount	
2019		Rs.	2020		Rs.	
Aug. 1	To Bank A/c	3,00,000	Mar. 31	By Balance c/d	3,00,000	1/2
2020 April I	To Balance h/d	3 00 000	2021 Mar 31	By Balance c/d	4 80 000	1/2
Nov. 1	To Bank A/c	1,80,000	11101.51	by balance c/u	4,00,000	
		4,80,000			4,80,000	
2021 April 1	To Palanco h/d	4 80 000	2021	By Bank A/c	1 69 000	1/2
July 1	To Bank A/c	2,00,000	July 1	By Provision for	54,300	1⁄2
			July 1	By Loss on sale of Machine a/c		
				(Rs.3,00,000 -		
				Rs. 1,68,000-	77 700	
			2022	RS.54,300) By Balance c/d	3.80.000	1/2
			Mar. 31		0,000,000	1/2
		<u>6,80,000</u>			<u>6,80,000</u>	
Dr.	PROVISION FOR DEPI	RECIATION AC	COUNT		Cr.	
Date	Particulars	Amount	Date	Particulars	Amount	
2020		Rs	.2020		Rs.	
			Mar. 31	By Depreciation A/c		
Mar. 31	To Balance c/d	20,000)	for eight months)	20,000	1/2
2021 Mar 31	To Balance c/d	55 500	2020 Anril 1	By Balance b/d	20,000	
		55,500	2021	By Depreciation A/c On	20,000	
			Mar. 31	1st Machine		
				28,000 On 2 nd Machine		
				7,500	35,500	1/2
		55,500)		55,500	
2021			2021			
July 1	To Machinery A/c	54,300 ⁽¹)April 1	By Balance b/d	55,500	1/
2022 Mar 31	lo Balance c/d	39,750	July 1	By Depreciation A/c	6,300	1/2
1111.51			2022	By Depreciation A/c		
			Mar. 31	, , , , , , , , , , , , , , , , , , , ,		
				On 2 nd Machine		
				17,250 On 3 rd Machino		
				15,000	32,250	1/2
			4	,		1
		94,050):		94,050	

Т

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										Rs.	F	₹s.		
		Ori	ginal Co	st as	on 1st Au	gust, 201	19		3,	00,000				
	Less:	De	preciatio	on for	2019-20	for 8 mo	nths @	10% p.a.		20,000	20,00	00		
		De		far	2020 21	(@ 100/	an Da 2	80,000)	2,	80,000	20.00	20		
	Less .	De	preciatio		2020-21	(@ 10%	011 KS.Z,	80,000)	2	52 000	28,00	50		
	Less:	De	oreciatio	on for	2021-22	(@ 10%	on Rs.2.	52.000 for 3	۷,	6.300	6.30	20		
		mo	nths)				,	,		,	,	1/2	2	
									2,	45,700	54,30	00		
	(2) Calo	culat	ion of d	epred	ciation or	2 nd macl	hinery :	Rs.						
	Origina		st as on	1st N	ovembei	°, 2020 = @10% p		c 1 90 000	1,8	0,000				
	for 5 m	ont	hs = 7.5	500	2020-21	@10%p	.a. on N	3. 1,80,000						
	Book v	alue	=						1,7	2,500		1/2	2	
	Depreciation for 2021-22 @ 10% p.a. on Rs.1,72,500 = 17,250													
24	A Decks of Vertilie													
24														
	Date	Ра	rticulars	L.F.	Cash	Bank	Date	Particulars	L.F.	Cash	Bank			
	2022				(`)	(`)	2022		_	(`)	(`)			
	1/1	То	Balance		2,500	25,000	3/1	By Salaries a/c		2,000	5,000			
		b/	d (½)					(1)						
	4/1	То	idend			2,500	6/1	By Cash a/c	с		2,500			
		a/d	c (1)					(72)						
	5/1	То	Cheque			10,000	6/1	By Balance c/d		3,000	30,000			
		a/d	nanu c (1)					(1/2)						
	6/1	То	Bank	с	2,500							5		
		a/o	c (½)		F 000	37 500				F 000	37 500			
	7/1	То	Balance	-	3,000	30,000				5,000	37,300			
		b/0	d											
						lou	irnal Pro	ner						
	Dat	e		Ра	rticulars	300	LF	Dr.	Cr.	Amount				
								Amount		`		1		6
								`						
	2/1/2	2	Chequ	e in h	and a/c	Dr.		10,000		40.00				
			IO J	eetar	ish soived fre	(1)				10,00	00			
			Jeetan	sh)	erveu nu									
			reetan	,										
25						Воо	ks of M	ohan						
	Dat	6		Pa	rticulars		Journa	Dr	Cr	Amount				
	Dat	C		14	riculars		-	Amount	CI.	, ,				
								`						
	1		Purcha	ise a/	c	Dr.		45,000				1		
			Input C	CGST	a/c	Dr.		2,700						
			Input S	GST a	a/c	Dr.		2,700		E0 44				
			(Goode	s pure	hased fr	om				50,40				
			Chetar	יייק - ו)										
	2 Pankaj Dr. 21,280													

		To Sales a/c				19,000	1	1	
		To Output CO	GST a/c			1,140	1		
		To Output SO	GST a/c			1,140			
		(Goods sold to I	Pankaj)						
	3	Machinery a/c	Dr.		1,25,000				
		Input CGST a/c	Dr.		7,500			1	
		Input SGST a/c	Dr.		7,500				
		To Cash a/c			,	1.40.000			
		(Machinery pur	chased)			, -,			
	4	Sales return a/c	, Dr.		2.850		_		
		Output CGST a/	c Dr.		171				
		Output SGST a/	c Dr.		171			1	
		To Pankai	-			3.192			
		(Goods returne	d by Pankai)			,			
	5	Drawings a/c			10.600		_		
	-	To Bank a/c			-,	5.000	1		
		To Purchase	a/c			5.000	1	1	
		To Output CO	GST a/c			300	1		
		To Output SO	GST a/c			300			
		(Goods and casl	, h withdrawn						
		by Mohan)							
	6	Depreciation a/	′c Dr.		12,500				
		To Machiner	y a/c			12,500		1	6
		(Depreciation c	harged on						
		machinery)	C						
		· · ·			•				
				Or					
25			Books	of M/S	5 Hiralal				
				Journa	d				
	Date	Particulars		LF	Dr. Amount	Cr. Amount			
					、	`	_		
	1 st April	Harshit	Dr.		27,000	•	_	1/	
	1 st April	Harshit Harshita	Dr. Dr.		27,000 45,000	、	_	1/2	
	1 st April	Harshit Harshita To Sales a/c	Dr. Dr.		27,000 45,000	, 72,000	,	1/2	
	1 st April	Harshit Harshita To Sales a/c (Goods sold on	Dr. Dr. credit)		27,000 45,000	, 72,000	-	1/2	
	1 st April	Harshit Harshita To Sales a/c (Goods sold on Cash a/c	Dr. Dr. credit) Dr.		27,000 45,000 24,300	、	-	1/2	
	1 st April 14 th April	Harshit Harshita To Sales a/c (Goods sold on Cash a/c Discount allowe	Dr. Dr. credit) Dr. ed a/c Dr.		27,000 45,000 24,300 2,700	, 72,000		1/2 1/2	
	1 st April 14 th April	Harshit Harshita To Sales a/c (Goods sold on Cash a/c Discount allowe To Harshit	Dr. Dr. credit) Dr. ed a/c Dr.		27,000 45,000 24,300 2,700	72,000		½ ½	
	1 st April 14 th April	Harshit Harshita To Sales a/c (Goods sold on Cash a/c Discount allowe To Harshit (Cash received	Dr. Dr. credit) Dr. ed a/c Dr. from Harshit)		27,000 45,000 24,300 2,700	、 72,000 27,000		¥2 ¥2	
	1 st April 14 th April 28 th	Harshit Harshita To Sales a/c (Goods sold on Cash a/c Discount allowe To Harshit (Cash received to Cheque in hand	Dr. Dr. Dr. ed a/c Dr. from Harshit) I a/c Dr.		27,000 45,000 24,300 2,700 45,000	、 72,000 27,000		1/2 1/2	
	1 st April 14 th April 28 th April	Harshit Harshita To Sales a/c (Goods sold on Cash a/c Discount allowe To Harshit (Cash received to Cheque in hand To Harshita (Cheque received	Dr. Dr. credit) Dr. ed a/c Dr. from Harshit) I a/c Dr.		27,000 45,000 24,300 2,700 45,000	、 72,000 27,000 45,000		1/2 1/2 1/2	
	1 st April 14 th April 28 th April	Harshit Harshita To Sales a/c (Goods sold on Cash a/c Discount allowe To Harshit (Cash received to Cheque in hand To Harshita (Cheque received Harshita)	Dr. Dr. Dr. ed a/c Dr. from Harshit) I a/c Dr. ed from		27,000 45,000 24,300 2,700 45,000	, 72,000 27,000 45,000		1/2 1/2 1/2	
	1 st April 14 th April 28 th April	Harshit Harshita To Sales a/c (Goods sold on Cash a/c Discount allowe To Harshit (Cash received Cheque in hand To Harshita (Cheque receive Harshita)	Dr. Dr. Dr. ed a/c Dr. from Harshit) I a/c Dr. ed from		27,000 45,000 24,300 2,700 45,000	、 72,000 27,000 45,000		1/2 1/2 1/2	
	1 st April 14 th April 28 th April 28 th	Harshit Harshita To Sales a/c (Goods sold on Cash a/c Discount allowe To Harshit (Cash received Cheque in hand To Harshita (Cheque receive Harshita) Purchase a/c To Mohan La	Dr. Dr. credit) Dr. ed a/c Dr. from Harshit) I a/c Dr. ed from Dr.		27,000 45,000 24,300 2,700 45,000 72,000	、 72,000 27,000 45,000		1/2 1/2	
	1 st April 14 th April 28 th April 28 th April	Harshit Harshita To Sales a/c (Goods sold on Cash a/c Discount allowe To Harshit (Cash received i Cheque in hand To Harshita (Cheque receive Harshita) Purchase a/c To Mohan La To Bank a/c	Dr. Dr. Dr. ed a/c Dr. from Harshit) l a/c Dr. ed from Dr. al		27,000 45,000 24,300 2,700 45,000 72,000	, 72,000 27,000 45,000 48,000 22,200		12 12 12	
	1 st April 14 th April 28 th April 28 th April	Harshit Harshita To Sales a/c (Goods sold on Cash a/c Discount allowe To Harshit (Cash received to Cheque in hand To Harshita (Cheque receive Harshita) Purchase a/c To Mohan La To Bank a/c To Discount	Dr. Dr. Dr. ed a/c Dr. from Harshit) I a/c Dr. ed from Dr. al		27,000 45,000 24,300 2,700 45,000 72,000	, 72,000 27,000 45,000 45,000 22,200 1,800		11/2	
	1 st April 14 th April 28 th April 28 th April	Harshit Harshita To Sales a/c (Goods sold on Cash a/c Discount allowe To Harshit (Cash received f Cheque in hand To Harshita (Cheque receive Harshita) Purchase a/c To Mohan La To Bank a/c To Discount f (Purchased goo	Dr. Dr. Dr. ed a/c Dr. from Harshit) I a/c Dr. ed from Dr. al received a/c ds from		27,000 45,000 24,300 2,700 45,000 72,000	, 72,000 27,000 45,000 45,000 22,200 1,800		11/2 11/2	
	1 st April 14 th April 28 th April 28 th April	Harshit Harshita To Sales a/c (Goods sold on Cash a/c Discount allowe To Harshit (Cash received Cheque in hand To Harshita (Cheque receive Harshita) Purchase a/c To Mohan La To Bank a/c To Discount I (Purchased goo Mohan Lal)	Dr. Dr. Dr. ed a/c Dr. from Harshit) I a/c Dr. ed from Dr. al received a/c ds from		27,000 45,000 24,300 2,700 45,000 72,000	, 72,000 27,000 45,000 48,000 22,200 1,800		12 12 12	
	1 st April 14 th April 28 th April 28 th April	Harshit Harshita To Sales a/c (Goods sold on Cash a/c Discount allowe To Harshit (Cash received f Cheque in hand To Harshita (Cheque receive Harshita) Purchase a/c To Mohan La To Discount f (Purchased goo Mohan Lal)	Dr. Dr. Dr. ed a/c Dr. from Harshit) l a/c Dr. ed from Dr. al received a/c ds from		27,000 45,000 24,300 2,700 45,000 72,000	, 72,000 27,000 45,000 45,000 22,200 1,800		12 12 12	
	1 st April 14 th April 28 th April 28 th April Dr.	Harshit Harshita To Sales a/c (Goods sold on Cash a/c Discount allowe To Harshit (Cash received to Cheque in hand To Harshita (Cheque received Harshita) Purchase a/c To Mohan La To Bank a/c To Discount to (Purchased goo Mohan Lal)	Dr. Dr. Dr. ed a/c Dr. from Harshit) l a/c Dr. ed from Dr. al received a/c ds from Harsh	it's Acc	27,000 45,000 24,300 2,700 45,000 72,000	, 72,000 27,000 45,000 45,000 22,200 1,800	Cr.	12 12 12	
	1 st April 14 th April 28 th April 28 th April Dr. Dr.	Harshit Harshita To Sales a/c (Goods sold on Cash a/c Discount allowe To Harshit (Cash received f Cheque in hand To Harshita (Cheque received Harshita) Purchase a/c To Mohan La To Bank a/c To Discount f (Purchased goo Mohan Lal)	Dr. Dr. Dr. ed a/c Dr. from Harshit) I a/c Dr. ed from Dr. df received a/c ds from Harsh LF Amount	it's Acc	27,000 45,000 24,300 2,700 45,000 72,000 72,000	 , 72,000 27,000 45,000 45,000 48,000 22,200 1,800 lars LF Am 	Cr.	11/2	
	1 st April 14 th April 28 th April 28 th April Dr. Dr.	Harshit Harshita To Sales a/c (Goods sold on Cash a/c Discount allowe To Harshit (Cash received i Cheque in hand To Harshita (Cheque receive Harshita) Purchase a/c To Mohan La To Bank a/c To Discount i (Purchased goo Mohan Lal) Particulars To Sales a/c	Dr. Dr. Dr. ed a/c Dr. from Harshit) l a/c Dr. ed from Dr. ed from Dr. nl received a/c ds from Harsh LF Amount 27.000	it's Acc	27,000 45,000 24,300 2,700 45,000 72,000 72,000 72,000 80 Particu By Cash a/	 , 72,000 27,000 45,000 45,000 48,000 22,200 1,800 1,800 1,800 1,800 	Cr. 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	11/2 11/2	
	1 st April 14 th April 28 th April 28 th April Dr. Dr. Dr. Dr.	Harshit Harshita To Sales a/c (Goods sold on Cash a/c Discount allowe To Harshit (Cash received f Cheque in hand To Harshita (Cheque receive Harshita) Purchase a/c To Mohan La To Bank a/c To Discount f (Purchased goo Mohan Lal) Particulars To Sales a/c	Dr. Dr. Dr. ed a/c Dr. from Harshit) I a/c Dr. ed from Dr. al received a/c ds from Harsh Harsh LF Amount 27,000	it's Acco Dat 14 th April	27,000 45,000 24,300 2,700 45,000 45,000 72,000 72,000 72,000 By Cash a/ By Cash a/ By Discour	, 72,000 27,000 45,000 45,000 1,800 1,800 1,800 1,800 1,800	Cr. 0 0 0 0 0 0 0 0 0 0 0 0 0	11/2 11/2	
	1 st April 14 th April 28 th April 28 th April Dr. Dr. Dr. 1 st April	Harshit Harshita To Sales a/c (Goods sold on Cash a/c Discount allowe To Harshit (Cash received f Cheque in hand To Harshita (Cheque receive Harshita) Purchase a/c To Mohan La To Bank a/c To Discount f (Purchased goo Mohan Lal) Particulars To Sales a/c	Dr. Dr. Dr. ed a/c Dr. from Harshit) I a/c Dr. ed from Dr. al received a/c ds from Harsh LF Amount 27,000	it's Acco Dat 14 th April	27,000 45,000 24,300 2,700 45,000 72,000 72,000 72,000 80 50000 80 90 80 90 80 90 80 90 90 90 90 90 90 90 90 90 90 90 90 90	72,000 27,000 45,000 45,000 45,000 48,000 22,200 1,800 1,800 Iars LF Am /c 24	Cr. 0 0 0 0 0 0 0 0 0 0 0 0 0	11/2 11/2	
	1 st April 14 th April 28 th April 28 th April Dr. Dr. Date 1 st April	Harshit Harshita To Sales a/c (Goods sold on Cash a/c Discount allowe To Harshit (Cash received 1 Cheque in hand To Harshita (Cheque receive Harshita) Purchase a/c To Mohan La To Bank a/c To Discount 1 (Purchased goo Mohan Lal) Particulars To Sales a/c	Dr. Dr. Dr. da/c Dr. from Harshit) I a/c Dr. ed from Dr. dafrom Dr. dafrom LF Amount 27,000	it's Acco Dat 14 th April	27,000 45,000 24,300 2,700 45,000 72,000 72,000 72,000 80000 500000 5000000000000000000000	72,000 27,000 45,000 45,000 48,000 22,200 1,800 22,200 1,800 21,800 1,800 1,800 1,800 1,800 1,800 1,800 1,800 1,800 1,800 1,800 1,800 1,800	Cr. ount 1,300 2,700	11/2 11/2	

	D."			Durch		1.000.00	±		C -			
	Dr.	Darticulars	15	Amount	ase A	Accoun	Darticulars	15	Cr.			
	2 oth	To Mohan Lal	LF	48 000		ale	Particulars	LF	Amount		11⁄2	6
	20 April	To Rank a/c		40,000							1/2	0
	Дріп	To Discount		1 800								
		received a/c		1,000								
				Р	ART	- B						
26	Trading and Profit & Loss a/c											
	Dr			For the yea	ar er	naea 3	1/3/22		Cr			
		Darticulars		Amour			Darticulars		Amount			
	To Purchase yyyyy By loss by fire* 30,000											
	Less: Los	s by fire (30.00)	0)*			By 103	5 by me		30,000		1/2	
	20001 200	<i>is by the (56)66</i>	•/									
	ToLoss	ov fire 30	000									
	Less: Ins	urance claim (20.	,000)	10.0	00							
	Any of the	e two options (Fit	her d	ebit side or	r cre	dit side)* Both are to be	mar	ked as correct			
	Any of the two options (Either debit side or credit side)." Both are to be marked as correct Balance Sheet											
				As a	at 31	1/3/22						
		Liabilities		Amoun	t	<u></u>	Assets		Amount			
				`		1			20,000		1/2	1
						Insura	ince claim		20,000		/2	-
27	Let Cost o	of goods sold = X										
	Gross pro	fit = $\frac{1}{2}$ x X										
	Sales = Co	3 st of goods sold -	+ Gro	ss profit								
	4 00 000	$-\mathbf{V} + \frac{x}{x} - \frac{4x}{x}$		55 prone								
	4,00,000	$- \sqrt{-\frac{3}{3}} - \frac{-3}{3}$										
	X = 3,00,0										1	1
	Gross pro	fit = 1,00,000										
28	C – (ii), (ii	i), (iv), (i)									1	1
_	- (// (
29	Yes, corre	ect as it increases	the c	ost of prod	uctio	on of b	ooks				1	1
30	It is Reve	nue Expenditure a	and th	ne amount	is ₹3	31,000					1⁄2 +	1
											1/2	
20					0	r					1/	
30	It is Capit	al Expenditure an	ia the	amount is	₹21	800					½ + 1∕	1
21	Operation	nofit - Grass	ofi+	Operation	0.42	oncoc					72 1/	
31	Operating	g profit = Gross pr	ont –	Operating	exp	enses	l Incurance prom	ium i	Advorticomon	. +	72 11/	
		s expenses = salal	.7 EUU	2 10076 J	י ח∩נ י ח∩נ	SHUILR .	- insurance prem - ₹25 000	nuiii +	Auverusemen	ιι	⊥/2	
	+ Bau ueu	11 = 5,000+2,000+	·2,500	F 000 - ₹7/	1 1 0	-4,800 0	= 125,900				1	2
		s proms = 1,00,00	<i>i</i> u – 2	J,300 = ₹/2	+,10	U					T	5
32				·		Jour	nal					
	Date	Pa	rticul	ars		LF	Dr. Amount	C	r. Amount			
							`		`			

	31/3/22	Bad debts a/c	Dr.		10,000				
		To Debtors				10,000		1	
		(Further bad debts)				,			
	31/3/22	Provision for had de	htsa/c Dr		16 000		-		
	31,3,22	To Bad debts a/c			10,000	16 000			
		(Bad debts writter	n off against			10,000		1	
		(Bad debts writter	in on against					-	
	21/2/22	Drofit & Loss a /a	Dr		26,000		-		
	31/3/22	To Droubier for h	Ur.		36,000	26.000		1	
		TO Provision for D				36,000		T	
		(Provision for bad d	ebts created)						
	Working no	ote:							
	Bad debts	6,000							
	+Further ba	ad debt 10,000	· · · · · · · · · · · · · · · · · · ·	10.40.0				1	
	+New prov	ision 6	0,000 {10% of	(6,10,0	100 - 10,000)			T	1
	(-) old prov		<u>10,000</u>						4
	= Net provi	sion to be created = $\frac{1}{2}$	36,000						
33	Dete	Deutioul		Journ		Cr. Amount	7		
	Date	Particula	ars		Dr. Amount	Cr. Amount			
	21/2/22	Drowings o/o	D.*		0.000		_		
	51/5/22	To Durchasos a /a	Dr.		9,000	0.000		1	
		10 Purchases a/c	f.,			9,000		T	
		(Goods withdrawn	for personal						
	24/2/22	use)			1.000		-		
	31/3/22	Fixtures a/c	Dr.		4,000				
		To Advertising a/o				4,000		4	
		(Sign board i	ncluded in					T	
		advertising now rec	tified)				_		
	31/3/22	No Entry						1	
	31/3/22	Prepaid insurance a	/c Dr.		300				
		To Insurance pre	mium a/c			300			
		(Prepaid insurance a	adjusted)					1	
	31/3/22	Manager's commiss	ion a/c Dr.		2,062				
		To O/s Manager	commission			2,062			
		(Manager commis	sion due to						
		manager)						1	
		$(20623 \times \frac{10}{100} = 2062)$.3 or 2062)						
	31/3/22	Profit & Loss a/c	Dr		24 562		-		
	51,5,22	To Insurance pre	mium a/c		24,502	1 500			
		To Manager's cor	mmission a/c			2,062			
		To Advertising ex	menses a/c			2,002		1	
		(Evnenses charged	to Profit &			21,000			6
		(Expenses charged	to FIOIR &						
34			Books of N	1rs. Gu	pta				
		1	Frading and Pr	ofit & L	.oss a/c				
			For the year e	nded 3	1/3/22				
	Dr.					Cr.			
		Particulars	Amount		Particulars	Amount			
			•			•			
	Opening stock 7 11.460			Sales	Sales (½) 1,40,370				
	Purchase 80,000			Less: I	Returns 4.24	0 1,36,130		(2½)	
	Less: Retu	irns - 2,820	77,180	Closin	g stock (½)	14,290		-	
	Carriage i	nwards $(\frac{1}{2})$	2,310			,			
	Wages		6,280						

	Gross profit (1)	53,190					
		<u>1,50,420</u>		<u>1,50,420</u>			
	Freight on sales	16,940	Gross profit	53,190			
	Office expenses	1,340	Rent (½) 2100				
	Postage and telegram	820	Add: Accrued rent 200	2,300			
	Printing and stationery (½)	660					
	Salaries and commission	9,870					
	Rates and insurance	1,300			(3)	2)	
	Bad debts (1) 1,400						
	Add: Further bad debts 570						
	Add: New Prov. 3,690						
	Less: Old Prov. (3,240)	2,420					
	Depreciation on building (½)	765					
	Depreciation on furniture (1/2)	175					6
	Net profit (½)	21,200					6
		<u>55,490</u>		<u>55,490</u>			
		0)r				
34		Books of I	VI/s Divya				
		Profit &	LOSS				
	Dr.	For the year e	nueu 31/3/22	Cr.			
	Particulars	Amount	Particulars	Amount	1		
		``		``			
	Rent	2,000	Gross Profit (½)	59,900			
	Internet and postage	400	Accrued interest on	2,600			
	Salaries 2,500		investment (½)				
	Add: Outstanding 200 (½)	2,700	Discount	1,500			
	Insurance 3,200						
	Less: Unexpired (500) (½)	2,700					
	Discount on debtors	1,450					
	Repairs	3,000					
	Legal charges	6,400					
	Outstanding interest on loan	5,500					
	Commission	2,480					
	Depreciation on plant	6,000					
	Depreciation on Land and	15,300					
	building						
	Bad debts 2,000						
	Add: Further bad debt 2,500						
	Add: New prov. 3,625	7 4 7 5					
	Less: Old prov. $(\frac{1}{2})$ (1,000)	7,125					
		64 000		64.000			
	Balance Sheet	<u>04,000</u>		04,000]		
		As at 3	1/3/22				
	Liabilities	Amount	Assets	Amount			
		`		`			
	Creditors	50,000	Debtors 75,000				
	Bills payable	50,000	Less: Further BD 2,500				
	Loan	1,10,000	Less: New Prov. 3,625	(1() 07 007			
	Outstanding interest on loan	(1/2)5,500	Less: Discount <u>1,450</u>	(½)67,425			
	General reserve	(1/2)50,000	Investments 65,000	(1/) (7 (00)			
	Add: Not profit 2,70,000		Aud: Accrued Int. 2,600	(72)67,600			
	Aud: Net prolit 8,945	(1/)2 59 025	Prepaid insurance	1 1 4 000			
	Outstanding salarios	(72)2,58,925	Fidint and machinery	1,14,000 2 20 700			6
	outstanding salaries	200	Land and building	2,39,700			-

Outstanding wages	(½)100	Closing stock	(½)35,500	
	5,24,725		<u>5,24,725</u>	

CLASS XI BIOLOGY (044)

Maximum Marks: 70

Time: 3 hours

General Instructions:

(i) All questions are compulsory.

(ii) The question paper has five sections and 33 questions. All questions are compulsory.
(iii) Section—A has 16 questions of 1 mark each; Section—B has 5 questions of 2 marks each; Section—C has 7 questions of 3 marks each; Section—D has 2 case-based questions of 4 marks each; and Section—E has 3 questions of 5 marks each.
(iv) There is no overall choice. However, internal choices have been provided in some questions. A student has to attempt only one of the alternatives in such questions.
(v) Wherever necessary, neat and properly labeled diagrams should be drawn

v) wherever necessary, neur and property tubered diagrams should be drav

SECTION A

- 1. Each part of plant breathes on its own. Roots of plants in haline marshy soil get suffocated if these do not have
 - a. Mycorrhizae
 - b. Pneumatophores
 - c. Haustoria
 - d. Rhizoids
- 2. Given below are some bacteria and their shapes. Select the correct match

	Bacteria		Shape
Α	Lactobacillus	i	Comma
В	Streptococcus	ii	Spherical
С	Vibrio cholerae	iii	Rod
		iv	Spiral

- a. A-i, B-ii, C-iv
- b. A-iii, B-ii, C-i
- c. A-iii, B-iv, C-ii
- d. A-ii, B-iii, C-iv
- 3. Given below are different sub-stages of prophase I. Match them with their correct feature.

	Column I		Column II
Ι	Zygotene	i	Formation of bivalent
II	Pachytene	ii	Terminalization of chiasmata
III	Diakinesis	iii	Dissolution of synaptonemal complex
IV	Leptotene	iv	Crossing over mediated by recombinase
V	Diplotene	v	Chromosomes start condensing

- a. I-v, II-i, III-iv, IV-iii, V-ii
- b. I-i, II-iii, III-ii, IV-v, V-iv
- c. I-i, II-iv, III-ii, IV-v, V-iii
- d. I-v, II-iv, III-ii, IV-i, V-iii

- 4. Which of the following cells of an adult will NOT exhibit mitosis?
 - a. Blood cells
 - b. Cells lining the gut
 - c. Heart cells
 - d. Cells of upper layer of epidermis
- 5. Choose the **INCORRECT** statement/statements.
 - i. *Gelidium* belonging to class Rhodophyceae yields Agar.
 - ii. Chlorella belonging to class Phaeophyceae is a rich source of protein.
 - iii. Laminaria belonging to class Phaeophyceae is used as sea food.
 - iv. *Porphyra* belonging to class Chlorophyceae is used in preparation of ice creams.
 - a. i only
 - b. iii only
 - c. ii and iii
 - d. ii and iv
- 6. Circular DNA is found in
 - a. mitochondria, chloroplast, nucleus
 - b. nucleoid, mitochondria, nucleolus
 - c. bacteria, mitochondria, chloroplast
 - d. nucleoid, mitochondria, nucleus
- 7. A pregnant female delivers a baby who suffers from stunted growth, mental retardation, low intelligence quotient and abnormal skin. This may be because of
 - a. low secretion of growth hormone
 - b. cancer of thyroid gland
 - c. over secretion of pars distalis
 - d. deficiency of iodine in diet.
- 8. In resting state, sodium-potassium pump transports
 - a. three sodium ions outside for two potassium ions into the cell
 - b. two sodium ions outside for three potassium ions into the cell
 - c. three sodium ions outside for three potassium ions into the cell
 - d. two sodium ions outside for two potassium ions into the cell
- 9. During non-cyclic photophosphorylation water acts as a/an
 - a. reducing agent
 - b. oxidizing agent
 - c. phosphorylating agent
 - d. stabilising agent
- 10. Which of the following combinations of hormones binds with intracellular receptors?
 - a. Insulin, FSH, Cortisol
 - b. Glucagon, Testosterone, FSH
 - c. Thyroxine, Testosterone, Estradiol
 - d. Insulin, Androgen, PTH

11. Given below are the figures of a few organisms. Find the correct option with respect to their excretory organs.



- a. A- Malpighian tubules, B- flame cells, C- nephridia
- b. A green gland, B nephron, C- nephridia
- c. A Malpighian tubules, B- nephridia, C- flame cells
- d. A flame cells, B nephridia, C nephron
- 12. What does A, B and C represent in the given figure?



Question No. 13 to 16 consist of two statements – Assertion (A) and Reason (R). Answer these questions selecting the appropriate option given below:

- A. Both A and R are true and R is the correct explanation of A.
- B. Both A and R are true and R is not the correct explanation of A.
- C. A is true but R is false.
- D. A is false but R is true.
 - 13. Assertion: Mitochondria of active cell has more number of cristae and F_0 - F_1 particles. Reason: F_0 - F_1 particles are involved in ATP production.
 - Assertion: The axon terminals contain neurotransmitter filled vesicles. Reason: These neurotransmitters can help in the transmission of impulse in any direction.
 - 15. Assertion: Pruning enhances growth of lateral branches. Reason: Pruning promotes ethylene production.
 - 16. Assertion: Viruses are obligate parasites. Reason: They are inert outside their specific host cells.

SECTION B

17. Based on the clues given below, identify and name the organ marked in the given figure



- a. Common duct for urine and sperm.
- b. Common opening for egestion and excretion.
- c. Organ which stores urine temporarily.
- d. Organ which stores undigested food.
- 18. Which biomolecules are responsible for providing fluidity to plasma membrane. Write the significance of this feature in an organism.

OR

Name the non-membrane bound organelle found in both prokaryotic and eukaryotic cells. Differentiate between the two.

- 19. A student visited a zoological park and saw panthera Tigris printed on a placard outside the tiger enclosure. As a biology student identify the errors he observed in this name. Who proposed this naming system?
- 20. a) The partial pressure of oxygen in the atmospheric air drops in bronchioles even before exchange begins in alveoli. Justify.

b) Diksha was practicing breathing exercises (*Pranayam*). She exhaled forcibly and then inhaled the maximum amount of air she could. Which pulmonary capacity is being measured. Calculate the volume of air she could inhale.

21. Neha observed the growth pattern in a stem of plant and recorded her observations as

	Day 1	Day 2	Day 3	Day 4	Day 5
Stem length	4	6	8	10	12
(in cm)					

a. Identify the type of growth pattern observed.

b. Write its mathematical expression.

SECTION C

22. In the following figures showing vascular bundles



- a. Identify the type A, B and C.
- b. Name the type of the plant and the plant part in which the above are found.
- 23. Compare any three classes of Kingdom Fungi on the basis of their mycelium and mode of asexual reproduction.
- 24. Study the graphs shown below for DNA content in a normally dividing cell till the division is completed. Answer the following questions.



- a. Identify the type of cell division depicted in A and B.
- b. Which line segment represents the S phase. Justify.
- 25. To prepare respiratory balance sheet of glucose oxidation, it is assumed that no intermediate compound enters or exits the pathway. During certain circumstances, a glycerol molecule enters as DHAP. Calculate the gross ATP molecules produced by DHAP molecule.

26. In the plant figure shown below



- a. Label the parts B, C and mention their ploidy.
- b. State the functions of parts A and D.
- 27. Explain the mechanism of sliding filament theory.

OR

Describe the major structural forms of joints in human body

- 28. Give reasons
 - a. Scoliodon needs to swim constantly.
 - b. Birds have pneumatic bones.
 - c. *Platypus*, though oviparous, is a mammal.

SECTION D

Q.no 29 and 30 are case based questions. Each question has subparts with internal choice in one subpart.

29. Observe the diagram and answer the questions that follow.



- a. Name the structure which is present in A but absent in B.
- b. Which group of organisms has type A and which group has type B type of circulation?
- c. What could be the possible disadvantage of type B circulation?

OR

Prepare a flow chart representing the type of circulation shown in type A. 30. Given below is a floral diagram.



- a. Identify the aestivation shown in the calyx and corolla of the above flower.
- b. Name the type of placentation seen in its ovary. Give example of a flower showing such placentation.
- c. Write the floral formula of the given flower.

OR

Enlist four characteristics of its androecium.

SECTION E

31. Diagrammatically represent the Hatch and Slack Pathway.

OR

Diagrammatically represent the chemiosmotic hypothesis of chloroplast.

32. a) Give the polarity of x and x' in the line diagram of DNA double helix given below.

b) If a DNA fragment has 800 bp in it, calculate the length of DNA in Angstrom.

c) If a DNA fragment of 1000 bp has 400 Adenine nitrogen bases,

calculate the amount of Guanine, Thymine and Cytosine in it.

d) Give one structural difference in the building block of DNA and RNA.



Observe the given graph showing a chemical reaction taking place in the presence and absence of an enzyme.



- a) Based on energy level difference between substrate/reactant and product, identify the type of reaction.
- b) Which of the two curves depicts the reaction catalysed by enzyme? Give reason.
- c) If a chemical closely resembling the substrate is added to the reaction, which of the curves in the graph will be affected and why?
- 33. Kidneys of mammals have special arrangement for conserving water.
 - a. Discuss the structural arrangement which facilitates this water conservation.
 - b. Explain the mechanism that helps in the production of concentrated urine.

OR

Kidneys have built-in mechanism for regulation of their function.

- a. Explain the regulatory apparatus present in kidney.
- b. With the help of flow chart explain its regulatory mechanism.

OR

BIOLOGY (044) CLASS XI SAMPLE PAPER

Marking Scheme

(Marking scheme and Hints to solution)

Note: (Any other relevant answer not given here in but given by the candidate be also suitably awarded)

Q.No.	Value Points / Key points	Marks allotted to	Total
		each value	marks
		point/key point	
1	b. Pneumatophores	1	1
2	b. A-iii, B-ii, C-i	1	1
3	c. I-i, II-iv, III-ii, IV-v, V-iii	1	1
4	c. Heart cells	1	1
5	d. ii and iv	1	1
6	c. bacteria, mitochondria, chloroplast	1	1
7	d. deficiency of iodine in diet	1	1
8	a, three sodium ions outside for two potassium ions into	1	1
	the cell		
9	a reducing agent	1	1
Í		1	1
10	c. Thurovine, Testostarone, Estradial	1	1
10	c. Thyroxine, Testosterone, Estradior	1	1
11	a A- Malnighian tubules B- flame cells C- penhridia	1	1
11	a. A- Maipiginan tubules, D- name cens, C- nepintula	1	1
12	c. Centromere. Satellite. Secondary constriction	1	1
12			-
		1	

13	A. Both A and R are true and R is the correct	1		1
	explanation of A			
14	C. A is true but R is false.	1		1
15	C . A is true but R is false.	1		1
16	A Both A and R are true and R is the correct explanation	1		1
	of A.			
17	 a. C - urinogenital duct b. E - cloacal aperture c. F- urinary bladder d. D - rectum 		¹ / ₂ x 4	2
18	Lipids		1/2	
	It helps in functions like cell growth, formation of intercel junctions, secretion, endocytosis, cell division (any three)	lular	¹ / ₂ x 3	2
	OR			
	Ribosome		1	
	In prokaryotes 70S		$\frac{1}{2} + \frac{1}{2}$	
	In eukaryotes 80S			2
19	Errors -		¹ / ₂ x3	
	 Generic name must starts with capital letter Specific epithet starts with small letter Print in italics 			
	Proposed by - Carolus Linnaeus			
			1/2	2

20	a) Du b) Vit	e to presence al capacity,	of residual volume			1/2 1/2	
	IRV+T	V + ERV = 40	00 ml -4600 ml			1	2
21	a) arit b) $L_t =$ $L_t =$ length	hmetic growth = $L_0 + rt$ at time 't'	h			1/2	
	$L_0 = length$	n at time 'zero	,				
	r = growth	rate / elongat	ion per unit time.			¹ / ₂ x 3	2
22	• A is rac	lial vascular b	oundle, present in r	oots.		$\frac{1}{2} + \frac{1}{2}$	
	• B is con	njoint closed	vascular bundle, pr	esent in monocot	stem.	$\frac{1}{2} + \frac{1}{2}$	
	• C is conjoint open vascular bundle, present in dicot stem.				$\frac{1}{2} + \frac{1}{2}$	3	
23	<u>Phycomycetes</u> Aseptate and coenocytic mycelium, aplanospores and zoospores.				$1/_2 + 1/_2$		
	Ascomycer	tes_					
	Septate and	d branched my	ycelium, conidia.			$\frac{1}{2} + \frac{1}{2}$	
	Basidiomy	cetes					
	Septate and	d branched my	ycelium, asexual sp	oores absent.			
	Deuteromy	vcetes				$\frac{1}{2} + \frac{1}{2}$	
	Septate and branched mycelium, conidia.						
	(Any three	classes)					3
24	• Ai	s mitosis.				1/2	
	• B is	s meiosis				1/2	
	• Line segment "bc" represents S phase because during this phase DNA replication takes place and the amount of DNA			1+1			
	per	cell doubles,	i.e if the initial am	ount of DNA is 2	C then it		
	wil	l increase to 4	·C.				3
25		Glycolysis	Oxidative decarboxylation	Kreb's cycle			
	ATP	2	-	1		2	
	NADH	1	1	3			
	FADH	-	-	1			

	1NADH=3 ATP		
	1 FADH=2ATP		
	Total ATP=3+15+2=20.		
		1	3
26	a. B is seta and it is diploid.	$\frac{1}{2} + \frac{1}{2}$	
	C are leaves and they are haploid.	$\frac{1}{2} + \frac{1}{2}$	
	b. A is capsule and produce spores.		
	D is rhizoids which attach the plant body to the	$\frac{1}{2} + \frac{1}{2}$	
	substratum.		3
27	Sliding filament theory	½ x 6	
	 A neural signal reaching neuromuscular junction releases acetylcholine that generates action potential in the sarcolemma. This causes release of calcium ions in the sarcoplasm. This leads to binding of calcium with a subunit of troponin on actin filaments and remove the masking of active sites for myosin. Using the energy of ATP, myosin heads bind to exposed active sites on actin to form a cross bridge. This pulls the actin filaments towards the centre of A band. The Z lines are also pulled inwards causing shortening of the sarcomere. 		
	Three types of joints are:		
	 Fibrous joints-do not allow any movement. It is shown by flat skull bones. Cartilaginous joints-the bones involved are joined together with the help of cartilages. Synovial joints- characterised by the presence of a fluid filled synovial cavity between the articulating surfaces of the two bones. 	1 x 3	3
28	a) Scoliodon lacks air bladder and has to swim constantly to	1	
	b) Birds have pneumatic bones that have air cavities to aid in flying.	1	

$\frac{1}{\frac{1}{2} + \frac{1}{2}}$	
/2 + /2	
1+1	
1+1	4
$\frac{1}{2} + \frac{1}{2}$	
$\frac{1}{2} + \frac{1}{2}$	
2	
½ x 4	4
	$\frac{1+1}{\frac{1}{2}+\frac{1}{2}}$ $\frac{1}{2}$ $\frac{1}{2}$ $\frac{1}{2} \times 4$



	PS IICyt bf6PSI	1 x 5	5
	ATPaseProton gradient		
32	a) x-3`, x`- 5`	$\frac{1}{2} + \frac{1}{2}$	
	b) Distance between 2 bp= 3.4 Å Total length = $800 \times 3.4 = 2720$ Å	1/2 + 1/2	
	c) Total number of bps = 1000 Total no. of bases= $1000 \ge 2000$		
	 No. of T= No. of A(given) = 400 Total no of T and A = 400 +400 = 800 Total No of C and G = 2000 -800 = 1200 No. of C = No of G = 1200/2 = 600 d) DNA has deoxyribose sugar RNA has ribose sugar (or any other relevant answer) 	2	
	OR		
	 a) Endothermic reaction, as energy level of Product is higher than substrate/ reactant. b) Curve B represents enzyme catalysed reaction/ Since difference in average energy content of reactant from that of transition state (Activation energy) is lower than in 	1 2	
	 c) Curve B Chemical will act as competitive inhibitor/will bind to active site of enzyme/will affect conversion of substrate to product 	2	5
33	 The Henle's loop and vasa recta play a significant role in concentrating urine. The flow of filtrate in the two limbs of Henle's loop is in opposite directions and thus forms a counter current. The flow of blood through the two limbs of vasa recta is also in a counter current pattern. The proximity between the Henle's loop and vasa recta, as well as the counter current in them help in maintaining 		

 an increasing osmolarity towards the inner medullary interstitium, Osmolarity gradient from 300 mOsmolL–1 in the cortex to about 1200 mOsmolL–1 in the inner medulla. This gradient is mainly caused by NaCl and urea. NaCl is transported by the ascending limb of Henle's loop which is exchanged with the descending limb of vasa recta. NaCl is returned to the interstitium by the ascending portion of vasa recta. 		
 Similarly, small amounts of urea enter the thin segment of the ascending limb of Henle's loop which is transported back to the interstitium by the collecting tubule. This counter current mechanism helps to maintain a concentration gradient in the medullary interstitium. Presence of such interstitial gradient helps in an easy passage of water from the collecting tubule thereby concentrating the filtrate (urine). 		
OR • JGA • JGA location • RAAS mechanism	¹ / ₂ x 10 ¹ / ₂ + ¹ / ₂	5
	4	5

	CLASS XI BUSINESS STUDIES (054) SAMPLE QUESTION PAPER (2022-23) MM – 80 TIME: 3 HOURS		
	General instructions :		
	1. This question paper contains 34 questions.		
	2. Marks are indicated against each question.		
	3. Answers should be brief and to the point.		
	4. Answers to the questions carrying 3 marks may be from 50 to 75 words.		
	5. Answers to the questions carrying 4 marks may be about 150 words.		
	6. Answers to the questions carrying 6 marks may be about 200 words.		
	7. Attempt all parts of the questions together.		
1.	 An American firm "Zebsik enterprise" purchased handmade decorative pieces from India, re-packaged and sold them in its own name to Germany. This represents: a. Entrepot for Zebsik enterprise, export for India & import for Germany. b. Entrepot for Zebsik enterprise, Import for India & export for Germany. c. Export for Zebsik enterprise, import for India & entrepot for Germany. d. Entrepot for Germany, export for India & import for Zebsik enterprise 	1	
2.	A company has to apply for the listing of shares in stock exchange; if permission is not received then the allotment will be void. Therefore permission shall be received within: a. 7 weeks b. 10 weeks c. 30days d. 10days	1	
3.	Find any two similarities between joint stock company and cooperative societies. a. Limited Liability & Common Seal b. Separate Entity & Formation c. Limited Liability &Management Control d. Separate Entity & Service Motive	1	
4.	Mr. Zed, a 39 year old, young man came to know that he is suffering from heart blockages, which need to be operated within next threemonths. He purchased an insurance policy worth rupees 10 lacs, without disclosing his true clinical material facts. He got operated but insurance company refused to pay the dues stating thathe had violated one of the insurance principles. Identify it. a. Subrogation b. Mitigation c. Insurable Interest d. Utmost good faith	1	
5.	This particular type of Bank account is a combination of savings bank and current account with term or special term deposits accounts. a. Multiple Option Deposit Account b. Fixed Deposit Account c. Recurring Account d. Saving Account	1	
6.	Match the columns and choose the correct alternatives:		
-----	--	--	---
	Column I	Column II	
	A. B2B Commerce	i. A firm's internal processes.	
	B. B2C Commerce	ii. A part of channel through which a	
		firm distributes its products to its	
		customers	
	C. Intra-B Commerce	iii. The business originates from the	
		consumer and ultimate destination is	
		also consumer.	
	D. C2C Commerce	iv. Entails a wide gamut of marketing	
		activities that are carried out online.	
	a. A – iv. B – ii. C – i. D – iii		
	b. A – iii. B – ii. C – i. D – iv		
	c. A – ii, B – i, C – iii, D – iv		
	d. A – i, B – ii, C – iii, D – iv		
7.	Read the statement carefully and choose	e the correct alternative:	1
	, , , , , , , , , , , , , , , , , , ,		
	Statement I: There is high investment fo	r setting up in e-business.	
	StatementII: e-business is also helpfu	I in personnel recruitment, selection and	
	training.	•	
	a. Both the statements are true.		
	b. Both the statements are false.		
	c. Statement I is true, Statement II is fals	e.	
	d. Statement II is true, Statement I is fals	e.	
8.	Identify internal source of finance from th	e following.	1
	a. Trade Credit		
	b. Debentures		
	c. Equity Shares		
	d. Inter Corporate Deposits		
9.	Everyday an ice-cream vendor appears	in front of your school. Name the type of	1
	retailer referred here.		
	a. Peddlers and Hawkers		
	b. Market Traders		
	c. Street Traders		
	d. Single line Stores		
10.	Assertion (A): Bank Credit is a permanen	t source of finance.	1
	Reason (R): Though banks have sta	arted extending loans for longer periods,	
	generally such loans are used for mediur	n to short periods.	
	a. Both A & R are correct, But R is not the	e correct explanation of A.	
	b. Both A & R are false.		
	c. A is false, But R is true.		
	d. Both A & R are true and R is the cor	rrect explanation of A.	
11.	Rahi Ltd. is a company dealing in organ	nic products. The company requires funds,	1
	for short term, in order to meet the add	itional demand during festival season. The	
	financial manager of the company sugg	lested that the company can borrow funds	
	from Rare Limited. Rare Limited deals	in FMCG products. Identify the suitable	
	source for raising funds to be used by fin	ancial manager in the above case.	
	a. Inter corporate deposits		
	b. Trade Credit		
	c. Cash Credit		
	d. Bank Overdraft		
1			1

12.	A Patent grants exclusive rights to the inventor for a period of during which anybody else who wishes to use the patented subject matter needs to seek permission from the patentee, by paying certain cost for the commercial use of such invention. a. 2 years b. 5 years c. 10 years d. 20 years	1
13.	Mohan Invested ₹ 5, 00,000 in the debentures of Venus Itd. The return for his investment is called a. Profit b. Dividend c. Interest d. Shares	1
14.	Jasbir is running an artificial jewelry business on the basis of advertisement only. She has not opened any shop and delivers goods to her customers through courier. Identify the type of Retail Trade that Jasbir is running. a. Export Trade b. Chain Stores c. Mail order houses d. Single line stores	1
15.	It is a guarantee issued by the importer's Bank that it will honour payment up to a certain amount of export bills to the bank of the exporter. Identify the document. a. Letter of Indemnity b. Indent or Order c. Letter of Credit d. Bill of Exchange	1
16.	 Which of the following document is not required for obtaining export license? a. IEC Number b. Letter of Credit c. Registration cum membership certificate d. Sight Draft 	1
17.	GST is the single comprehensive tax on supply of goods and services. a. Direct b. Indirect c. Personal d. Impersonal	1
18.	 Which of the following document is not required in connection with an import transaction? a. Bill of Lading b. Shipping Bill c. Certificate of Origin d. Shipment Advice 	1
19.	 Which of the following statement is FALSE for MSME sector in India a. MSME sector is the second largest employer of human resources, after agriculture. b. MSME is considered being less labour intensive and more capital intensive. c. MSME in our country supplies an enomourous variety of products whichinclude mass consumption goods etc. d. MSME is considered being more labour intensive and less capital intensive. 	1

20.	 The basic objective of Start-ups India scheme is a. Trigger an entrepreneurial culture and inculcate entrepreneurial values. b.Create awareness about the charms of being an entrepreneur. c. To carve strong eco system for nurturing innovation & startups of country d. Encourage more dynamic start up by motivating educated youth as a viable career. 	1
21.	Mohan, after completing his MBA from a reputed college returned to India. He hired a cab (taxi) from the airport to his house at a fare of ₹ 3000 as no cab was ready to go on meter. In midway he got an idea to start a kind of cab facility in which all the cabs of his business will run on meter along with the total amount of fare will be known to the passenger before boarding hiscompany's cab. He analyzed the idea with its operational viability, also was able to arrange funds required to start the business as idea seems to be profitable. Hence, Mohan decided to start a company with a name of "Cab Convenience".	3
	In above Para Mohan has performed the few steps of one of the stage of formation of company, Explain the next three steps to be performed by Mohan to complete this stage of formation.	
22.	Explain any three functions of commercial banks.	3
	OR	
	Explain any three types of digital modes of payment.	
23.	Life insurance corporation of India is the largest insurance company in India. It is headquartered in Mumbai. It was founded in the year 1956, where the parliament of India passed the life insurance of India act that nationalized the private insurance industry in India. Over 245 insurance companies and provident societies were merged to create the state owned life insurance corporation. (a) Life insurance corporation is classified as which form of public sector enterprise. (b) State any two features that highlights Life Insurance corporation of India in a particular form of public sector enterprise as identified in part (a).	3
	OR With Exponential growth seen in domestic transportation additional metro rail infrastructure, government has decided to offer more metro networks to private parties for operations and management. In Delhi, as 30 metro stations needed to be revived and upgraded in coming years to support the double digit growth in the sector. This would require huge private investment as public funds are limited for infrastructure development. In February 2017, Central government announced that metro rail infrastructure will be built by state owned enterprises (Local and International) in Delhi, Mumbai, Bangalore and Hyderabad to private developers.	
24	Following is the capital structure of the ABZ Ltd. composed with different sources of	3
	finance.	5
	8% Debentures ₹ 50,000	
	10% preference share capital ₹ 1,00,000	
	Equity share capital ₹ 1,00,000	
	Profits of the company for the year 2017-18 are ₹50,000.	
	(a) From the above sources of finance, identify the source of finance that provides	
	(b) State any two preferential rights available to preference shareholders over equity	

	shareholders.	
25.	With the reference to following items identify and explain types of intellectual properties.	4
	i. Darjeeling Tea ii. Registered Brand Name	
26.	"Fundamental reason behind international business is that every countrycan't produce equally well or cheaply all that they need, hence international business is required". Explain any four rationale of the same.	4
	OR	
	"International Trade is not only beneficial to Countries but it also works for the well- being of industry and trade of these countries" Explain the rationale of the same.	
27.	Harsh runs an online store dealing in all kinds of household items which he procures from different dealers. Whereas his friend Lakshay runs a storethrough which hesells all kinds of organic products like spices, pickles, jams etc. these products are produced in his automated manufacturing unit in Kerala.	4
	 (a) Identify the two concepts undertaken by Harsh and Lakshay respectively. (b) Also differentiate between the concepts identified in part (a) on the basis of : Shape Transaction risk 	
	Nature of human capital	
28	Explain any four arguments for social responsibility	4
20.		
20.	OR	
20.	OR Explain any four elements of business ethics.	
29.	OR Explain any four elements of business ethics. Mohit and Sumit are friends. They have to attend the birthday party of a common friend. Mohit goes to 'Poshak kids wear' exclusively for kids wear with his parents to get a new dress for party, whereas Sumit purchased his dress from 'Reliance Mart'. & his mother purchased grocery from the same store.	4
29.	OR Explain any four elements of business ethics. Mohit and Sumit are friends. They have to attend the birthday party of a common friend. Mohit goes to 'Poshak kids wear' exclusively for kids wear with his parents to get a new dress for party, whereas Sumit purchased his dress from 'Reliance Mart'. & his mother purchased grocery from the same store. (a) Identify the type of stores Mohit and Sumit visited. (b) Explain any operature of each store identified in part (a)	4
29. 30.	OR Explain any four elements of business ethics. Mohit and Sumit are friends. They have to attend the birthday party of a common friend. Mohit goes to 'Poshak kids wear' exclusively for kids wear with his parents to get a new dress for party, whereas Sumit purchased his dress from 'Reliance Mart'. & his mother purchased grocery from the same store. (a) Identify the type of stores Mohit and Sumit visited. (b) Explain any onefeature of each store identified in part (a). In the banking system in India dated back to 1750 B.C. there evidence of loans from Vedic period. From the writing of many foreign travelers during Mughal period we came to know about the use of various instruments in the then great commercial centers. In the Mughal period historians found evidence of loan which is known as dastawez of two types- one was payable on demand and other was payable after a stipulated time. The most important class of credit instruments of exchange evolved India at that time. Their use was most widespread in the twelfth century and has continued till today. These instruments were famous in many then trade centers such as Mathura, Kaveripatta and Broach.	4
29. 30.	OR Explain any four elements of business ethics. Mohit and Sumit are friends. They have to attend the birthday party of a common friend. Mohit goes to 'Poshak kids wear' exclusively for kids wear with his parents to get a new dress for party, whereas Sumit purchased his dress from 'Reliance Mart'. & his mother purchased grocery from the same store. (a) Identify the type of stores Mohit and Sumit visited. (b) Explain any onefeature of each store identified in part (a). In the banking system in India dated back to 1750 B.C. there evidence of Ioans from Vedic period. From the writing of many foreign travelers during Mughal period we came to know about the use of various instruments in the then great commercial centers. In the Mughal period historians found evidence of Ioan which is known as dastawez of two types- one was payable on demand and other was payable after a stipulated time. The most important class of credit instruments of exchange evolved India at that time. Their use was most widespread in the twelfth century and has continued till today. These instruments were famous in many then trade centers such as Mathura, Kaveripatta and Broach. (a) Identify the instruments of exchange prominent in the great ancient Commercial centers of India.	4
29. 30.	OR Explain any four elements of business ethics. Mohit and Sumit are friends. They have to attend the birthday party of a common friend. Mohit goes to 'Poshak kids wear' exclusively for kids wear with his parents to get a new dress for party, whereas Sumit purchased his dress from 'Reliance Mart'. & his mother purchased grocery from the same store. (a) Identify the type of stores Mohit and Sumit visited. (b) Explain any onefeature of each store identified in part (a). In the banking system in India dated back to 1750 B.C. there evidence of Ioans from Vedic period. From the writing of many foreign travelers during Mughal period we came to know about the use of various instruments in the then great commercial centers. In the Mughal period historians found evidence of Ioan which is known as dastawez of two types- one was payable on demand and other was payable after a stipulated time. The most important class of credit instruments of exchange evolved India at that time. Their use was most widespread in the twelfth century and has continued till today. These instruments were famous in many then trade centers such as Mathura, Kaveripatta and Broach. (a) Identify the instruments of exchange prominent in the great ancient Commercial centers of India. (b) Also state the commercial importance of the trade centres mentioned in the para.	4

31.	A, B, C and D are partners in a firm with unlimited liability. But after 1991, B and C decided that they didn't want to bear unlimited risk. With the consent of all the partners, they made amendments in partnership deed and changed their liability clause, in which now the members are responsible for the losses only to the extent of the capital invested by them.	6
	 (a) Identify the types of partnership formed before and after 1991 (b) State any two differences between the types of partnership identified in part (a) (c) Also explain any three advantages of partnership form of business organization. 	
	OR	
	Private sector comprises various types of business organizations. However there is such form of business organization which restricts the rights of transfer of ownership in one of its types, on the other hand the other type of same business organization, allow its owners to transfer their rights of ownership. (a) Identify the types of one of the form of business organization highlighted in	
	above para. (b) State any five differences between the types identified in part (a)	
32.	Excel ltd. has received an order to export 2000 sewing machines to Swift Import ltd. of Spain. Explain in brief first six steps which Excel ltd. would need to go through for executing the export order.	6
33.	 Deepak Beverages Itd. Is planning to expand its operations. Therefore the board of directors planned to issue shares worth ₹10, 00,000. But it is facing some short term financial difficulty, therefore doesn't have sufficient funds to meet its cost of issue of shares. The company invited deposits from the general public for 6 months @ 15% p.a. rate of interest, issued a deposit receipt as an acknowledgement by the company. In this way company was able to meet its short term financial need. (a) Identify and specify the type of fund which Deepak beverages Itd. raised in above (b) Also state any three merits and two demerits of the specified fund identified in 	6
34.	 part (a). Umesh established 'Niger' in 2021 in USA. The powers, rules and regulations of "Niger' was decided as per USA norms. Niger established its trade projects in different parts of the world to increase its market territory which leads to greater revenue and higher efficiency. (a) How will 'Niger' be categorised as a private sector enterprise? (b) State any five features of this private sector enterprise. 	6
	OR	
	BHEL was founded in the year 1964 by the Government of India. It is the largest power plant equipment manufacturer in the country with 74% market share in the Power Sector. It hasnetwork of 17 manufacturing units, 2 repair units, 4 regional offices, 8 service centres and infrastructure allowing it to execute more than 150 projects at sites across India and abroad. It has been granted the prestigious Maharatna status in2013 by the Government of India. Maharatna Status allows the Board of this company enhanced financial and operational autonomy.	
	 (a) How will BHEL be classified as a form of Public Sector Enterprise? (b) State any four features of the form of Public Sector Enterprises as identified in part (a). (c) State briefly 'Operational autonomy' as a merit of the type of Public Sector Enterprises as identified in part (a). 	

CLASS -XI BUSINESS STUDIES (054) MARKING SCHEME (2022-23) Maximum Marks: 80

Marking Scheme/Hints to solutions

[Note: Any other relevant answer, not given here under but given by the candidates, be suitably awarded.]

Q.No	Value points/ Key points	Marks allotted to each key point	Total marks
1.	(a) Entrepot for Zebsik enterprise, export for India & import for Germany.	1	(1)
2.	(b) 10 weeks	1	(1)
3.	(c) Limited liability & Management control	1	(1)
4.	(d) Utmost good faith	1	(1)
5.	(a) Multiple Option Deposit Account	1	(1)
6.	(a) A – iv, B – ii, C – i, D – iii	1	(1)
7.	(d) Statement II is true, Statement I is false.	1	(1)
8.	(c) Equity	1	(1)
9.	(a) Peddlers and Hawkers	1	(1)
10.	(c) A is false But R is true.	1	(1)
11.	(a) Inter corporate deposits	1	(1)
12.	(d) 20 years	1	(1)
13.	(c) Interest	1	(1)
14.	(c) Mail order houses	1	(1)
15.	(c) Letter of Credit	1	(1)
16.	(d) Sight draft	1	(1)
17.	(b) Indirect	1	(1)
18.	(b) shipping bill	1	(1)
19.	(b) MSME is considered being less labour intensive	1	(1)
	and more capital intensive.		
20.	(c) To carve strong eco system for nurturing innovation& start-ups in the country	1	(1)
21.	Next three stages of Promotion step are:	1/2 mark for	(3)
	(i) Fixing of signatories to the Memorandum of	Heading +	
	Association	1/2 mark for	
	(ii) Appointment of Professional	each	
	(iii) Preparation of necessary documents	explanation	
22.	Functions of Commercial Banks:-	1/2 mark for	(3)
	(i) Acceptance of Deposits	Heading +	
	(ii) Lending of funds	¹ / ₂ mark for	
	(iii) Cheque facility	explanation	
	(or any other relevant point)		
	OR		
	Digital mode of Payments:-	¹ / ₂ mark for	
	(i) Debit Card	Heading +	
	(ii) Electronic Fund Transfer	¹ / ₂ mark for	
	(iii) Mobile Wallets	explanation	
	(or any other relevant point)		

23.	 (a) Statuary Corporation (b) Features of Statuary Corporations: (i) A set up under the act of Parliament (ii) wholly owned by the State (or any other relevant point) OR Public Private Partnership Features: 			1 mark for identificatio n + 1 mark for each point	(3)
	(i) Contract w public facil (ii) Facility is f (or any other relevan	vith the private party ity inanced and owned t point)	to design and build by the public sector	1 mark for identificatio n + 1 mark for each point	
24.	 (a) Debentures (b) Prefential rights to (i) Receiving a fi the company, before shareholders. (ii) Receiving the creditors have been 	 (a) Debentures (b) Prefential rights to Preference Shares (i) Receiving a fixed rate of dividend out of the net profits of the company, before any dividend is declared for equity shareholders. (ii) Receiving their capital after the claim the company's creditors have been settled. 			(3)
25.	 (a) Geographical Indication: - It is primarily an indication which identifies agricultural, natural or manufactured products originating from a definite geographical territory. (b) Trade Mark:- It is any word, name or symbol that lets us identify the goods made by an individual, company and organisation etc. 			1 mark for Identificatio n + 1 mark for explanation	(4)
26.	Benefits of Internation (i) Earning of foreign (ii) More efficient use (iii) Improving growth (iv) Increased standar (or any other relevant Benefits of Internation (i) Prospects for high (ii) Increased capacit (iii)Prospects for grow (iv) Improved busine (or any other relevant	nefits of International trade to nations: Earning of foreign exchange More efficient use of resources Improving growth prospectus Increased standard of living any other relevant point) OR nefits of International trade to firms: Prospects for higher profits Increased capacity utilization Prospects for growth Improved business vision any other relevant point)			(4)
27.	(a) Traditional Busine	ess and E-business		1 mark for	(4)
	(b)		1	identificatio	
	Basis of difference	Traditional business	E-business	n + 1 mark each for	
Shape of organisational structure		Vertical/Tall	Horizontal/Flat	difference	
	I ransaction risk	LOW	Hign		

	Nature of Huma	n Semi-skilled and	Techr	nically and			
		even Un skilled	qualif	ied			
28.	Argument for Soc	ial responsibility	1 40 0			½ mark	(4)
	(i) Justification of existence and growth				each		
	(ii) Long-te	erm interest of the firm	1 			heading +	
	(iii) Avoida	nce of government re	gulation			¹ / ₂ mark for	
	(IV) Maintei	nance of the society				explanation	
	(or any other rele	OR					
	Elements of Busi	ness Ethics:					
	(i) Top ma	anagement commitme	ent				
	(ii) Publica	tion of Code				1/2 mark	
	(iii) Establi	shment of compliance	emechanis	sms		each	
	(iv) Involvir	ng employees on each	h level			heading +	
	(V) Measu	ring results				1/2 mark for	
20	(Any lour points)	•					(4)
20.	(i) Specia	lity Stores				each for	(+)
	(ii) Depart	mental Stores				identificatio	
	Features (Specia	Ity stores):-				n + 1 mark	
	(i) Locate	d in a central place wl	here a larg	ge number of		for each	
	custom	ers can be attracted.				point.	
	Features(Departr	nental Stores)					
	(I) It provi	des all facilities such a	as restaura	ant, trade and	1		
		allon elc. other suitable points))				
30.	(a) The instrumer	ts of exchange promi	, inent in the	e great ancien	nt	1/2 mark	(4)
	Commercial c	enters of India:-		5		each for	
						identificatio	
	Darshani Hundi a	nd Muddati hundi				n + 1 mark	
	The commercial i	montance of the tree	la contrac	montioned in	the	for each	
	nara is:	importance of the trac	le centres	mentioned in	i the	point.	
	para 13.						
	(i) Mathura : Emp	orium of trade and ma	any routes	from South			
	India touched Ma	thura					
	(ii) Kaverinatta: (Centre of trade for ner	fumes co	emotice and			
	wool etc. also for	ship building	1011103, 00	Sincles and			
		1 0					
	(iii) Broach: situat	ed on the bank of rive	er Narmad	a and linked			
	with all important	marts by roadways					
31.	(a) General Partn	ership and Limited Pa	artnership			1 mark for	(6)
-	(b) Differences be	etween General partn	ership and	I Limited		identificatio	(-)
	Partnership.		-			n +	
	Basis	General	Limited F	Partnership			
	Liphility	Partnership		no norte er		∠ marks for	
		Unimited and joint	Alleast 0	rest unlimitor	Ч	unierences	
	Registration	Optional	Compuls	Sorv	u		
	(c) Advantages o	f partnership form of t	ousiness :				
	i. Ease of formation & closure						

	ii. Balanced decision making			1/2 mark for	
	iii. More funds			each point	
	(any other relevant po	pint)		+ 1/2 mark	
				for each	
	OR			explanation	
	(a) Private company &	Public company			
	(b) Difference betweer	n Private and Public co	ompany	1/2 mark for	
	Basis	Private	Public company	each	
	Members	Minimum-2	Minimum-7	identificatio	
		Maximum-50	Maximum- unlimited	n +	
	Directors	2	3	1 mark for	
	Paid up capital	1Lac	5 Lacs	each	
	Index of members	Not compulsory	Compulsory	difference	
	Transfer of shares	Restriction	No Restriction		
32.	The first six steps of E	xport procedure are :		1/2 mark for	(6)
	 Receipt of enqui 	iry and sending quota	tion	each point	
	Receipt of orde	r or indent		+ 1/2 mark	
	Assessing import	orter's creditworthiness	and securing	for each	
	guarantee for p	ayments		explanation	
	Obtaining expo	rt licence			
	5. Obtaining pre s	hipment finance			
	6. Production or p	rocurement of goods.			
33	(a) Public deposits			1 mark for	(6)
	(b) Merits:-			identificatio	(0)
	(i) The procedu	ure of obtaining deposi	t is simple	n +1 mark	
	(ii) No dilution i	n the control of compa	ny	for each	
	(iii) It does not c	reate any charge on a	ssets of business.	point	
	(or any other relative p	points)			
	Demerits:-				
	(i) Not suitable for	new organizations.			
	(ii) Unreliable source of finance				
0.4	(Or any other suitable points)			4	(0)
34.	(a) Global Enterprises			1 mark	(6)
	(D) Features:-			each for	
	(i) Huge capital res	sources			
				for each	
	(iii)Auvance Techno (iv) Product innova	tions		noint	
	(V) Marketing strat			point.	
	(or any other relative r	oints)			
		,0,1,0)			
	(a) Government Co	ompany		1 monte for	
		v oon ontor into contro	ot and can acquire	i mark tor	
	(i) Compan	y can enter into contra	ct and can acquire		
	(ii) Compan	v can file a suit in a co	urt of law against	+ 1 mark for	
	any third	narty and he suid	ar or law ayallist	each noint	
	(iii) The man	agement of the comp	any is regulated by	of feature +	
	the provi	sion of the companies	act.	1 Mark for	

(iv) The government company obtained its funds from government shareholding and other private shareholders.	stating.	
(c) Operational autonomy: - Government Company enjoys autonomy in all management decisions and take actions according to business prudence.		

Sample Question Paper CLASS XI CHEMISTRY THEORY (043)

MM:70

Time: 3 hours

General Instructions:

Read the following instructions carefully.

a) There are 35 questions in this question paper with internal choice.

b) SECTION A consists of 18 multiple-choice questions carrying 1 mark each.

c) SECTION B consists of 7 very short answer questions carrying 2 marks each.

d) SECTION C consists of 5 short answer questions carrying 3 marks each.

e) SECTION D consists of 2 case- based questions carrying 4 marks each.

f) SECTION E consists of 3 long answer questions carrying 5 marks each.

g) All questions are compulsory.

h) Use of log tables and calculators is not allowed.

Q.No	Section A
1	45.4 L of Dinitrogen at STP reacted with 22.7L of Dioxygen, and 45.4L of Nitrous oxide was formed. The reaction is given below: $2N_2(g) + O_2(g) \rightarrow 2N_2O(g)$
	Recognize the law being obeyed in this experiment. (a)Law of Multiple proportion (b) Avogadro'sLaw (c) Law of Conservation of mass (d)Gay Lussac's Law of Gaseous volumes.
2	A metallic ion M^{2+} has an electronic configuration of $1s^22s^22p^6$ $3s^2$ $3p^6$ $4s^13d^5$ and the ionic weight is 56 amu. The number of neutrons in its nucleus is (a)30 (b)32 (c)34 (d)42
3	The equilibrium constant of following reactions is: $N_2 + H_2 \rightleftharpoons 2NH_3$ K ₁ $N_2 + O_2 \rightleftharpoons 2NO$ K ₂ $H_2 + 1/2 O_2 \rightleftharpoons 2H_2O$ K ₃ Identify the correct expression for the equilibrium constant (K) of the following Reaction, 4NH ₃ +5O ₂ \rightleftharpoons 4NO + 6H ₂ O (a)K ₁ ⁶ K ₃ ² /K ₂ ³ (b) K ₂ K ₃ ³ /K ₁ ³ (c) K ₂ ² K ₃ ⁶ /K ₁ ² (d) K ₂ ³ K ₃ /K ₁

4	The values of standard electrode potentials of some halogen species are given as: (a)E° _{F2/F} -=2.85V ; (b)E° _{Cl2/Cl} -=1.36V ; (c)E° _{Br2/Br} -=1.06V ; (d)E° _{l2/l} -=0.53V The correct order of reducing power of above species would be: a. a>b>c>d b. a <b<c<d c. d<c<a<b d="">d d. d>c>a>b</c<a</b<c<d
5	In which of the following molecules,carbon will behave as a nucleophilic centre: a. HCOCI b. CH ₃ NCS c. CH ₃ MgBr d. CH ₃ SCH ₃
6	Select the species with least bond order : a. C_2 b. O_2 c. N_2^+ d. $O_2^{2^-}$
7	Atomic number of the element with the symbol Uuu is : a. 100 b. 111 c. 110 d. 101
8	Compare the given compounds,and select the one in which nitrogen can be estimated by Kjeldahl's method. a.Azo compounds b.Nitrobenzene c.Pyridine d.Benzylamine
9	Choose the correct statement related to formation of Nitronium ion as an electrophile : a. Sulphuric acid acts as an acid and Nitric acid acts as a base. b. Sulphuric acid acts as a base and Nitric acid acts as an acid. c. Sulphuric acid and Nitric acid both act as acids. d. HSO ₄ ⁻ acts as conjugate acid and H ₂ NO ₃ ⁺ acts as a conjugate base.

10	Which of the following is an example of a redox reaction?
	(a)XeF ₆ +H ₂ O → XeOF ₄ +2HF
	(b) $XeF_6 + 2H_2O \rightarrow XeO_2F_2 + 4HF$
	(c) $XeF_4 + O_2F_2 \rightarrow XeF_6 + O_2$
	(d) XeF2 +PF ₅ \rightarrow [XeF] ⁺ PF ₆
11	Identify the correct expression for internal energy change for an adiabatic process. a. $\Delta U = 0$ b. $\Delta U = -q$ c. $\Delta U = W$ d. $\Delta U = +q$
12	The conformation of Ethane,with maximum torsional angle is- a. Staggered b. Eclipsed c. Skew d. Gauch
13	 The correct inference with respect to Lassaigne's test is- a. The formation of Prussian blue colour indicates the presence of N b. The formation of yellow colour indicates the presence of S c. The formation of Red colour indicates the presence of N and P d. The formation of Violet colour indicates the presence of N
14	The mean C-H bond enthalpy in methane is 416 kJ/mol .The enthalpy of atomization for methane molecule would be- a1664 kJ/mol b. +104 kJ/mol c. + 1664 kJ/mol d104 kJ/mol
15	Given below are two statements labeled as Assertion (A) and Reason (R) Assertion (A) : For the following reaction, $2SO_2(g)+O_2(g) \rightleftharpoons 2SO_3(g); \Delta H=193.2 kJ$, increase in temperature favours the decomposition of SO ₃ . Reason(R) : Increase in temperature favours endothermic reactions. Select the most appropriate answer from the options given below: a. Both A and R are true and R is the correct explanation of A b. Both A and R are true but R is not the correct explanation of A. c. A is true but R is false.

	d. A is false but R is true.
16	Given below are two statements labeled as Assertion (A) and Reason (R) Assertion (A) : The H-N-H bond angle in NH ₃ is smaller than H-O-H bond angle in H ₂ O Reason (R) : Nitrogen has one lone pair and oxygen has two lone pairs. a. Both A and R are true and R is the correct explanation of A . b. Both A and R are true but R is not the correct explanation of A. c. A is true but R is false. d. A is false but R is true.
17	 Given below are two statements labeled as Assertion (A) and Reason Assertion (A): In differential extraction method, the same solvent is repeatedly used for extraction of the compound. Reason (R): Two compounds with different solubilities in the same solvent can be separated by this method. a. Both A and R are true and R is the correct explanation of A. b. Both A and R are true but R is not the correct explanation of A. c. A is true but R is false. d. A is false but R is true.
18	 Given below are two statements labeled as Assertion (A) and Reason Assertion (A) : The number of radial nodes in 3s and 4p orbitals is not equal. Reason (R) : The number of radial nodes in any orbital depends upon the values of 'n' & 'l' which are different for 3s and 4p orbitals. a. Both A and R are true and R is the correct explanation of A . b. Both A and R are true but R is not the correct explanation of A. c. A is true but R is false. d. A is false but R is true
	Section B
19	Calculate the molarity of the solution obtained by dissolving 120g of urea [Mol wt.=60] in 880g of water. The density of the solution is 1.15g/mL.
20	Write the electronic configuration of element with atomic no. 25 and assign the position to the given element in the periodic table.
21	Complete the following reactions : $O - CH_3 + CH_3 - C$ $Autori AlC3,$ a. Cl

	b. H C O C
22	(a)Determine the number of sub-shells associated with n=5. (b) How many electrons will be present in the subshells having m_s value of $+\frac{1}{2}$ for n=5?
	Explain the difference between Absorption and Emission spectrum.
23	Balance the following redox reaction:
	$MnO_4^{2-} \rightarrow MnO_4^{-} + MnO_2$ (Acidic medium)
	OR
	Balance the following redox reaction:
	$MnO_4^- + I^- \rightarrow I_2 + MnO_2(Basic medium)$
24	An alkene C_6H_{10} on ozonolysis gives the following products : Propanone, ethandial and methanal. Formulate the alkene and Write its IUPAC name .
25	(a)Give the expression for de Broglie relation.(b)Comment on the significance of de Broglie relation for macroscopic particles.
	Section C
26	Calculate the enthalpy of combustion of ethylene given that the enthalpy of hydrogenation of ethylene, combustion of hydrogen and ethane are -135.6 kJ/mol, -286.2kJ/mol and -1560.6 kJ/mol respectively at 298 K.
27	 Explain the following : a. Mg has larger first ionization enthalpy than Al. b. Zn is not considered as a transition element. c. Second electron gain enthalpy of oxygen is positive.
	OR Arrange the following according to the property mentioned in bracket: a. N, O, F (increasing order of electron gain enthalpy) b. N ³⁻ , O ²⁻ , F ⁻ (increasing order of effective nuclear charge) c. Group 17 elements (increasing order of reactivity)

28	An aliphatic compound 'X' undergoes cyclic polymerisation to form aromatic compound 'Y' and 'X' also gives ethanal on warming with mercuric sulphate and dilute sulphuric acid at 333K . 'Y' reacts with Cl ₂ in the presence of UV light to form gammaxane. Write all the chemical equations involved.					
29	An electron is emitted from a metal surface with a velocity of $5.84 \times 10^5 \text{ ms}^{-1}$, when a photon of wavelength $4 \times 10^{-7} \text{ m}$ strikes on it.Calculate a.Energy of photon in eV. b.K.E of emitted electron. c.Work function in eV. [h= 6.626×10^{-34} Js;c= 3×10^8 m/s;1eV= 1.602×10^{-19} J]					
30	Consider the following reactions and answer the questions given below:					
	$\begin{array}{ccc} CH_{3} \longrightarrow CH_{3} & CH_{3} \longrightarrow CH_{3} \longrightarrow CH_{3} \\ & & \xrightarrow{HCl} & \\ OH & Cl \end{array}$					
	CH ₃ CH ₃					
	$CH_3 \longrightarrow CH_3 \longrightarrow $					
	CH ₃ CH ₃					
	a)Mention the type of fission taking place in the substrate molecules.					
	b)Write the intermediate formed in both the cases.					
	c) Identify the more stable intermediate giving reason.					
	Section D					
31	Read the passage carefully and answer the questions that follow: In our day to day life,we come across various mixtures of substances.Often in these mixtures the amount of one of the components is more than the other .To have a quantitative comparison,we express distribution of one substance into that of other by the term 'Concentration'. The concentration of a solution is expressed in many ways molarity, molality, mole fraction, g/litre ,ppm , ppb, and % .However,for pure substances,concentration term is meaningless, rather we talk about their percentage purity .Molarity is the number of moles of solute dissolved per litre of solution whereas molality is number of moles of solute per kilogram of solvent. Mole fraction on the other hand is the ratio of moles of any component to the total moles of all components in the solution.Moreover ,the temperature dependent terms are less preferred to					

	express concentration.
	 a.Give two concentration terms which are independent of temperature.Give reason in support of your answer. b.Mention the concentration term which is generally used to express-(i)composition of medicines in tablet form. (ii)Increased level of pollutants in air.
32	
	Read the passage carefully and answer the questions that follow :
	The process of rusting involves solid metal iron reacting with gaseous oxygen in presence of moisture to form solid hydrated ferric oxide. Going by the phase change, it is obvious that randomness (entropy) is decreasing as gaseous oxygen is consumed and solid oxide is being formed. This doesn't seem to support spontaneity. However the process of rusting is a self – supporting reaction as the surplus energy generated in the reaction (-1648 kJ mol ⁻¹) becomes dispersed to the surroundings as 'heat' and raises the entropy of the surrounding. On calculation ,overall entropy (system + surroundings) Δ S total is found to be (4.98 kJmol ⁻¹ K ⁻¹). Huge gain in entropy by surrounding makes the rusting reaction spontaneous.
	ΔG = ΔH – T ΔS = [-1648 – 298 x 4.98] , ΔG = Gibbs free energy
	$\Delta G = -2840 \text{ kJ/mole}$, negative ΔG makes the reaction spontaneous. This is in accordance with the Second Law of Thermodynamics which tells us that on the transformation of energy from one form to another form ,entropy always increases and free energy always decreases.
	a.Is rusting of iron feasible at all temperatures ? Explain.
	b.State second law of thermodynamics .
	OR
	Define Entropy.
	c.Why is free energy a better way of predicting feasibility of a reaction as compared to entropy?
	Section E
33	 a. Discuss the shape of AsF₅ using VSEPR theory. b. Draw the Lewis dot structure of NO₂. c. Explain the hybridization of AICl₄⁻ d. Give an example of polyatomic species having zero dipole moment .

	e. What type of hydrogen bond is present in 2-Hydroxybenzoic acid .
34	a.A 0.1 M solution of Formic acid [HCOOH] has Ka=1.77x 10 ⁻⁴ .Calculate (i) pH of the solution (ii)Percent dissociation of HCOOH. b.State Henry's law.
	c. For the reaction,H ₂ (g) +Br ₂ (g) \rightleftharpoons 2HBr(g),The equilibrium amounts of H ₂ , Br ₂ and HBr is 0.45mole, 0.39mole and 3 moles respectively at 25°C
	Calculate
	(a)Kc (b) Kp, for the reaction at the given temperature.[R=0.0821Latm/K/mol]
	OR
	a. The value of Kc for the reaction $,4A \rightleftharpoons 2B + 2C, is 2 \ge 10^{-4}$.At a given time,the composition of reaction mixture is $[A]=[B]=[C]=5 \ge 10^{-5}$ M.
	Predict whether at this composition, the reaction will favour the formation of A. Justify your answer.
	b.Define common-ion effect.
	c.The Ksp of BaSO ₄ is 1.0×10^{-10} .Predict whether the precipitation will take place or not, when 40 mL of 1.0×10^{-5} BaCl ₂ solution is mixed with 40 mL of 5.0 x 10^{-6} M Na ₂ SO ₄ Solution.
1	



Q.No	Sub part	<u>Value points</u>	Step wise marks	Total marks
1		(d)	1	1
2		(a)	1	1
3		(c)	1	1
4		(b)	1	1
5		(c)	1	1
6		(d)	1	1
7		(b)	1	1
8		(d)	1	1
9		(a)	1	1
10		(c)	1	1
11		(c)	1	1
12		(a)	1	1
13		(a)	1	1
14		(c)	1	1
15		(d)	1	1
16		(a)	1	1
17		(d)	1	1
18		(d)	1	1
19		Mass of Urea=120g Mass of water=880g Total mass of solution=880+120=1000g Voume of solution = <u>mass</u> = <u>1000g</u> = <u>1000</u> mL Density 1.15g/mL 1.15 Molarity of solution = <u>Mass of solute</u> x <u>1000</u> Molar mass of Volume solute of solution (in mL)	1/5 1/5	2

Marking Scheme of Sample Question Paper Chemistry XI 2022-23

		= <u>120g</u> x 60g =2.30M	<u>1000</u> x 1.15 1000mL	1/2 1/2	
		-2.3010		/2	
20		Electronic configuration=3d ⁵ 4s Period = 4 Group = 7	2 ²	1 ½ ½	2
21	а	OCH3 + CH3COCI Anhyd.AlCl3 Anisole Ethanoyl chloride 2-	OCH ₃ COCH ₃ + COCH ₃ + COCH ₃ COCH ₃ - Methoxy - A - Methoxy - acetophenone (Major)	1	2
	b	CHO <u>HNO3 + H2SO4</u> Electrophilic sub Benzaldehyde	stitution CHO m-Nitrobenzaldehyde	1	
22	а	No. of subshells=5		1	2
	b	No. of electrons present in the $+\frac{1}{2}$ for n=5 is 25 [No. of electrons in the sector based on the sec	subshells having m _s value of ons =2n²/2	1	
		C	R		
		Emission Spectrum It is obtained when radiation from the source is directly analyzed in the spectroscope.	Absorption Spectrum It is obtained when the white light is first passed through the substance and the transmitted light is analyzed	1	2
			in the spectroscope.		

		lines separated by dark spaces. (OR Any other suitable point m	the otherwise continuous spectra.		
23		+6 +4 +7 $MnO_4^{2-} \rightarrow MnO_2 + MnO_4^{-}$ Oxidation half reaction $[MnO_4^{2-} \rightarrow e^- + MnO_4^-] \times 2$ Reduction half reaction $MnO_4^{2-} + 4H^+ + 2e^- \rightarrow MnO_4^{-}$ Adding (i) and (ii) $3MnO_4^{-} + 4H^+ + 2e^- \rightarrow 2MnO_4^{-}$	—(i) ₂ + 2H Q—(ii) 4 ⁻ +MnO ₂ + 2H ₂ O	1/2 1/2 1/2 1/2	2
		C	R		
		+7 -1 +4 +7 MnO ₄ ⁻ + I ⁻ → MnO ₂ + I ₂ [Oxidation half reaction	Basic medium]	1⁄2	
		$[2l^- \rightarrow 2e^- + l_2] \ge 3$ —(i) Reduction half reaction		1⁄2	
		$[MnO_4^{-1} + 2H_2O + 3e^{-} \rightarrow Mn($	D ₂ + 40H ⁻] x2—(ii)	1⁄2	
		$2MnO_4 + 6I + 4H_2O \rightarrow 3I_2 +$	2MnO ₂ + 8OH	1⁄2	
24		(H ₂ C) ₂ -C=CH-CH=CH ₂		1	
		4-Methylpenta-1,3-diene		1	2
25	а	de-Broglie relation λ=h/mv		1	2
	b	For macroscopic particles, since associated wavelengths are so properties cannot be detected.	e the mass is too large,the short that their wave	1	
26		Given:		1/	
		i)C ₂ H ₄ (g) + H ₂ (g) → C ₂ H ₆ (g), Δ	∆H = -135.6 kJ/mol	1/	
		ii) H ₂ (g) + ½ O ₂ (g) → H ₂ O (I), I	∆H = -286.2 kJ/mol	/2	
		iii) C₂H ₆ (g) + 7/2 O₂ (g) → 2CC kJ/mol	0 ₂ (g) + 3H ₂ O (I), ΔH = -1560	1⁄2	
		To find:			

		$C_2H_4(g) + 3O_2(g) → 2CO_2(g) + 2H_2O(I), ΔH = ?$		
		Eq (i) + Eq(iii) – Eq(ii)	1/2	
		= -135.6 + (-1560) - (-286.2)		
		= -1409.4 kJ/mol	1/2	
			1/2	3
27	а	More penetration effect of s-orbital as compared to that of p-orbital / completely filled s-subshell in Mg	1	3
	b	Zn has completely filled d-orbital in atomic as well asionic state.	1	
	С	Energy has to be provided to overcome the repulsion between O ⁻ and incoming electron.	1	
		or		
	а	N < O < F	1	3
	b	3- 2 N < O < F	1	
	с	I < Br< CI < F	1	
28		$CH = CH \xrightarrow{Hg^{2*}}_{H} \xrightarrow{CH_3} CH_3 = CH_3 O$	1	
		$\begin{array}{c} H - C = C - H & \xrightarrow{\text{cyclic polymerisation}} & ^{+ 3Cl_2} \xrightarrow[BHC \text{ or Gammerszane or Indane)} \\ (X) & & & & \\ (Y) & & & \\ \end{array}$	1+1	3

			-	
29	а			
		Energy of photon (E) = $hv = \frac{hc}{\lambda}$		
		$=\frac{6.626 \times 10^{-34} Js \times 3 \times 10^8 m s^{-1}}{4 \times 10^{-7} m}$	1⁄2	3
		= 4.97 x 10 ⁻¹⁹ J = $\frac{4.97 x 10^{-19}}{1.6 x 10^{-19}} eV = 3.10 eV$	1/2	
	b	Kinetic energy of emission = ½ mv ²		
		= ½ x 9.1 x 10 ⁻³¹ Kg x (5.84 x 10 ⁵ ms ⁻¹) ²	1⁄2	
		=1.55 x 10 ⁻¹⁹ J		
		$=\frac{1.55 x 10^{-19}}{1.6 x 10^{-19}} eV = 0.968 eV$	1⁄2	
	с			
		= (3.10 - 0.968) eV	1⁄2	
		= 2.132 eV	1⁄2	
30	а	Hetrolytic fission	1	
	b	H and a sub-	1/2+1/2	
		H_3C CH_3 H_3C CH_3 H_3		
		For reaction 1 For reaction 2		3
	С	H₃C、⊕, CH₃		-
		^I CH₃ is more stable	1/2	
			1/2	

		due to more number of α - hydrogen atoms / more numberof hyperconjugative structures / More +I effect due to 3 methyl groups.		
31	а	Molality , Mole fraction	1/2 + 1/2	4
		As they do not involve calculations using volume .	1	
	b (i)	Percentage by Mass	1	
	(ii)	Parts per million (ppm)	1	
32	а	Yes , it is feasible at all temperatures .	1	
		According to the equation $\Delta G = \Delta H - T\Delta S$ Since reaction is exothermic, ΔH is negative ΔS_{total} is positive, therefore, ΔG is negative at all temperatures.	1	4
	b	A spontaneous process is an irreversible process and may only be reversed by some external agency.		
		OR		
		Entropy is the measure of disorder or randomness of the system.	1	
	С	For the calculation of free energy change (ΔG), we don't need to have any measurements or parameters involving surrounding, everything can be measured with respect to the system.	1	
33	а	As has 5 valence electrons/5 bond pairs.		
		F-AS-F		Э
			1	
		Trigonal bipyramidal	'	
	b	ö=n−ö:	1	
	с	Electronic configuration of AI : $1s^2 2s^2 2p^6 3s^2 3p^1$ $ 1s^2 2s^2 2p^6 3s^2 3p^1 $		

	d	In AlCl ₄ in_{3s} in_{3p} 3 Cl atoms share 1 electron each and chloride ion shares lone pair in the empty orbital making hybridisation sp3. BeCl ₂ / BF ₃ / CH ₄ /CCl ₄ or any other suitable example.	1	
34	a	$HCOOH \iff HCOO + H$ Initial 0.1 0 0 Final 0.1-x x x x $Ka = (x)^2 / (0.1-x)$ 1.77 × 10 ⁻⁴⁴ = (x) ² / 0.1 as x << 0.1 M $x = 0.0042M = [H^{+}]$ (i) pH = - log [H ⁺] = - log 0.0042 = 2.4 (ii) To calculate percentage dissociation: $[H^{+}] = ca$ 0.0042 = 0.1 × a a = 0.042 % dissociation = 0.042 × 100	1/2 1/2 1/2	5
	b	= 4.2 % Henry's Law [·] The mass of a gas dissolved by a liquid is	⁷ 2	
		proportional to the pressure of the gas upon the liquid.	·	
	с	H ₂ (g) +Br ₂ (g) \rightleftharpoons 2HBr(g) [H ₂] = 0.45 / V mol/L (V is the volume of the vessel) [Br ₂] = 0.39/ V mol/L		

	[HBr] = 3.0 / V mol/L	1⁄2	
	$Kc = [HBr]^2 / [H_2] [Br_2]$		
	$= (3.0 / V)^2 / (0.45 / V \times 0.39 / V)$	1/2	
	$= (3.0)^2 / (0.45 \times 0.39) = 51.28$	1⁄2	
	Kp = Kc (RT) ^{Δn} (Δn = 0) Kp = Kc = 51.28	1/2	
	OR		
а	For the reaction, the reaction quotient (Q) is given by		
	$Qc = [B][C] / [A]^2$		
	As $[A] = [B] = [C] = 5 \times 10^{-5}$		
	Qc = (5×10^{-5}) (5×10^{-5}) / $(5 \times 10^{-5})^2$	1	
	= 1		
	As Qc > Kc , the reaction will proceed in the reverse direction.	1	
b	Common Ion Effect : It is a shift in equilibrium on adding a substance that provides more of an ionic species already present in the dissociation equilibrium.	1	
с	40 ml of 1.0 \times 10 ⁻⁵ M BaCl ₂ is mixed with 40 ml of 5.0 \times 10 ⁻⁶ M Ba ₂ SO ₄		
	After mixing , molarity of Ba ²⁺ $M_1V_1 = M_2V_2$ $1.0 \times 10^{-5} \times 40 = M2 \times 80$		5
	[Ba ²⁺] = (1.0 × 10 ⁻⁵) / 2 = 5×10 ⁻⁶ M	1⁄2	
	After mixing ,molarity of SO_4^{2-} = $\frac{1}{2} (5 \times 10^{-6}) = 2.5 \times 10^{-6} M$	1⁄2	

		lonic product of BaSO ₄ = $[Ba^{2+}] [SO_4^{2-}]$ = $(5 \times 10^{-6} \times 2.5 \times 10^{-6}) M$ = $7.5 \times 10^{-6} M$ Given Ksp = 1×10^{-10} Since Ksp > ionic product No precipitation will take place.	1/2 1/2	
35	а	Н Н Н Н H-C-C-C-OH H Н Н Н		
		Butan-1-ol or any other isomeric monohydric alcohol.	1/2	
		$H_3C \sim O_{CH_3}$	1⁄2	5
	b	CH3		
		HO CH ₃	1	
		2-Methylpropan-1-ol	1	
	с	20 millimoles of Sulphuric acid neutralizes 40 millimoles of	1⁄2	
		40 millimoles of NH ₃ contains = $40 \times 10^{-3} \times 14$ g of Nitrogen Percentage of N in the organic compound	1/2	
		= $(40 \times 10^{-3} \times 14 \times 100) / 2.8$	1/2	
		= 20 %	1⁄2	
		OR		
	а	Amount of Sulphur in organic compound = $(0.2 \times 40)/100 = 0.08 \text{ g}$	1⁄2	
		32 g S present in 233 grams of BaSO₄ 0.08 g S present in = (233 ×0.08) / 32 g of BaSO₄ = 0.5825 g of BaSO₄	1/2 1/2 1/2	

b	(i) Thin Layer Chromatography	1	
	(ii) R _f (For component A) = Y/Z = 3.2 cm / 5.3 cm = 0.603 cm	1⁄2	5
	R _f (For component B) = X/Z = 1.5 cm / 5.3 cm = 0.283 cm	1⁄2	
	(iii) Component B	1	

Sample Question Paper 2022-2023

Class : XI

Subject: Computer Science(Theory)

Max. Time: 3 Hours

Max. Marks: 70

Note: This question paper contains five sections, Section A to E. General Instructions:

- 1. This question paper contains five sections, Section A to E.
- 2. All questions of a particular section must be attempted in the correct order.
- 3. SECTION A has 18 Objective Type Questions of 1 mark each.
- 4. SECTION B has 07 Very Short Answer Type Questions carrying 02 marks each.
- 5. SECTION C has 05 Short Answer Type Questions carrying 03 marks each.
- 6. SECTION D has 03 Long Short Answer Type Questions carrying 05 marks each.
- 7. SECTION E has 02 Questions carrying 04 marks each. One Internal choice is given in Q35 against part c only.
- 8. All programming questions are to be answered using Python Language only.

		Section A	
1.	cont through the computer me a. ALU	rols sequential instruction, execution and guides data flow emory b. CU	1
	c. Processor	d. Memory	
2.	Raunak is working on a numk applications simultaneously. the applications opened. a. Antivirus	per of applications on his laptop. He is able to work on all the Select which among the given options manages memory for all b. Language translator	1
	c. Operating system	d. Compiler	
3.	Identify secondary memory f a. ROM c. Flash Drive	rom the following. b. EPROM d. Cache memory	1
4.	Srishti is facing a problem of to run Disk Compression soft Compression software comes a. Proprietary c. Utility software	storage space in her computer. Her teacher has suggested her ware to reduce the size of files present in her system. Disk s under which category? b. OS d. Device Driver	1
5.	Consider the string s = "REAP" Which of the following will re a. print(s[::2]) b. print(s[3]) c. s[3] = "R" d. t = s[3]	esult in an error?	1
6.	For which set of values the py given below:	ython code(eq=a**2+b**2+2*a*b) will not give the output	1
		100	
	a. a=8, b=2 c. a=5, b=5	b. a=6, b=4 d. a=3, b=4	
			1

7.	Which of the following Python code will give different output from the others?	1
	A. for i in range(0,5): print(i)	
	B. for j in [0,1,2,3,4]: print(j)	
	C. for k in [0,1,2,3,4,5]: print(k)	
	D. for l in range(0,5,1): print(l)	
8.	Consider the following code and predict the output Cars=("Maruti","TATA","HYUNDAI","TOYOTA","MG") (m,n,k,p,q)=Cars print(m[0]+p) a. MTOYOTA b. MarutiTOYOTA c. TOYOTA d. ATOYOTA	1
9.	Predict the output. d1={1:"Mon",2:"Tue",3:"Wed",4:"Thur",5:"Fri",6:"Sat",7:"Sun"} d2=d1.copy() d3=d2 d2[2]="TUE" print(d1[2],d2[2],d3[2])	1
10.	Give the output which will be generated on execution of the following statements? s=[5,3,2,1,0,1,1,2] print(s[s.pop(3)+s.pop(5)-2])	1
11.	Identify an invalid identifier a. Num1 bAddr c. Count# d. P123_abc	1
12.	Select which among the following is not a Net Etiquette related to the use of Digital Technology? a. Be ethical b. Be respectful c. Be responsible d. Be independent	1
13.	Akriti is looking for a bag on Amazon. She thought of comparing the price of the same on different websites. Meanwhile, she visited other websites as well. But, she is getting her searches for bags made on Amazon every time on the window she is visiting. Interpret what is reflecting in this scenario. a. Digital Footprint b. Stalking b. Stalking 	1
	C. Piagiarism G. Phisning	

14.	4. Many people create videos on YouTube by using content from other's videos. Infer which Intellectual Property Right is being violated in this case?			
	а	. Copyright Infringement	b. Trademark	
	с.	Copyright	d. Patent	

15.	Categorize points g correct option.	iven below under I	Ethical and Non-Eth	nical Hackers and choo	ose the	1
	i. \	White Hat hacker				
	ii. E	Black Hat hacker				
	iii. A	Are specialists in ex	ploring any vulner	ability or loophole du	ring testing	
	o	f the software.		, ,	0 0	
	iv. 1	Fries to gain unaut	horized access to co	omputers or network	s in order to	
	S	teal sensitive data.				
	a. Ethical-i,iv	and Non-Ethical- ii	<i>,</i> iii			
	b. Ethical- i,iii	and Non-Ethical- ii	i, iv			
	c. Ethical-i,ii	and Non-Ethical- iii	i, iv			
	d. Ethical-ii,iv	and Non-Ethical- i	<i>,</i> iii			
16.	Read the words giv	en below:			1	1
	Social	Malvertising	Adware	Spyware		
	engineering	_				
	Shareware	Malware	Ransomware	Stalking		
	Choose the most a	ppropriate words t	to fill the blanks.		-	
	is used legit	timately in free ver	sions of application	ns to display advertise	ements	
	while a program is	running but can be	classified as	_ if the code records	users'	
	information or brow	wsing habits witho	ut their consent an	d authorization.		
	017 and 18 are ACC			tions Make the serve	at abaica aa	
	Q17 and 18 are ASS	BERTION AND REAS	the correct evelope	tions. Make the corre	ect choice as	
	a. Both A and	R are true and R is	not the correct explana	lanation of A		
		t R is Falso	not the correct exp			
	d A is False bu	t R is True				
17.	Assertion(A) : Diction	onary is a mapping	data type.			1
	Reason(R) : it is an	ordered collection	of key value pairs.			
10	Assortion(A) · Logic	al arrors are bard t	to find			1
10.	Reason(R) · Logical	error produces an	undesired output v	vithout abrunt termin	nation of the	1
	execution of the nr	ogram.		introde astrupt termin		
1		-0				1

		S	ection B		
19.	Akash a Germai languag	and Sara both have their own laptop n, Hindi, English, etc. in his laptop wl ge. Identify and explain the differenc	s. Akash is able to work in all langua hereas Sara's laptop supports only E ce in encoding schemes of their comp	ges like 2 nglish puters.	
20.	Do the following conversions: i. (11011.101) ₂ =() ₈ ii. (A73) ₁₆ =() ₂ or Differentiate between compiler and interpreter.				
21.	Write the appropriate Boolean expression for the Logic circuit given below:				
22.	Select the possible output for the given code in Python. Write the minimum value 'e' and maximum value 's' can have. import random num = ["one", "two", "three", "four", "five", "six", "seven", "eight", "nine"] s=random.randint(2,5) e=random.randint(4,5) for k in range(s,e+2): print (num[k], end="@")				
23.	c) five Match	@six@seven@eight d) four(the following :	@five@six	2	
	Column A Column B				
		a. for	i. punctuator		
		b. +	ii. literal		
		c. :	iii. operator		
		d. 5	iv. Keyword		

24.	Rewrite the following code after correcting the errors and underline the corrections: n=input('Enter a number')	2
	For k in range (2,20)	
	print(n/2)	
	WAP to generate five random integers between 50 and 75 and display the sum of random numbers generated.	
25.	Many children had health issues during lockdown. Among all, most of the issues are related to eyes. Infer the reason behind this.	2
	OR	
	With the growth of the Internet, many cases of cyber crimes, frauds, cyber attacks and cyber	
	bullying are reported. Elaborate the reason behind the establishment of Cyber Appellate Tribunal.	
	Section C	
26	Draw a flowchart to count and display multiples of 5 in a given list of integers.	3
27	WAP to accept a string and replace all occurrences of digits present in the string by '#'. or	3
	Consider the code given below:	
	import string	
	name='Computer2@myWorld3#'	
	n=''	
	for x in name:	
	if x.isalpha():	
	n=n+x.upper()	
	elif x.isdigit():	
	II−II⊤X elif v isunner():	
	n=n+x.lower()	
	else:	
	print('all the best')	
	print(n)	
	Answer the following questions based on the code above:	
	a. Identify the number of times the message "all the best" will be printed	
	b. Give the final value of string n.	

28.	Write a program to acce	pt sales of n (accept value of n from user)employees of a company.	3			
	Calculate the incentive to	o be given based on the following criteria.				
	Incentive	Sales				
	10 % of sales	> 100000				
	7 % of sales	75000 to 100000				
	5 % of sales	<75000				
	or					
	On the occasion of Diwa	li festival, Big Store gives the following offers:				
	sales>=5000,	the discount will be 20% of the sales				
	1000 <sales<5000< td=""><td>the discount is 10%</td><td></td></sales<5000<>	the discount is 10%				
	500 <sales<1000< td=""><td>the discount is 5%</td><td></td></sales<1000<>	the discount is 5%				
	sales <500	no discount				
	Write a program in Pytho calculate the net amount company gives an extra 2	on that accepts sales and customer number from the user and t which the customer has to pay after availing discount (if any). The 2 % discount on the net amount to every 100th customer.				
29.	WAP to create a list L3 fr at even index and eleme For example : if L1= [1,2,3,4,5] and L2 = then L3 should be [1,7,2	om two given lists L1 and L2 such that the elements of L1 are placed nts of list L2 are placed at odd index of L3. =[7,8,9,10,11] ,8,3,9,4,10,5,11]	3			
20			2			
30.	a. Watch the columns	a viewal averabal ward warea decime ata	5			
	1. Phisning	a. Visual symbol, word, name, design, etc				
	2. Cyber crime	b.use of digital technology along with the internet.				
	J. Digital Society	d. computers are used as a tool to commit srime				
	4. Digital Society	a. computers are used as a toor to commit crime.				
	b. Give one word.					
	i. A	works on a unique digital ID issued by a Certified Authority				
	(CA) to the user.					
	ii. Biometric informati	on, health information, financial information, or other personal				
	documents, images or au	Idios or videos are examples of data.				
	Section D					
-----	--	---	--	--	--	--
31.	Sumit phones old and inventory shows and wants to maintain the record of his inventory in the form of a dictionary in Python The dictionary should Store item name as the key and its quantity as the value. Write code snippet for the following i) create the dictionary with name inventory containing following items and quantity ltem quantity Pencil 50 Notebook 100 Clip 700 ii) To display number of items in the above dictionary iii) Add a new item eraser with quantity 200 iv) to increase the quantity off notebook by 50 v) to display the item with maximum quantity					
32.	Question consider the following string S1= " Azadi ka Amrit Mahotsav" (i) Compare the outputs of statement 1 and statement 2 statement 1 : print(S1[-len(S1[3:8]):-len(S1[-3:-1])].upper()) statement 2 : print(S1[- len(S1[3:8].upper()) :- len(S1[-3:-1].upper())]) (ii) Give the output print(S1.endswith("sav") and S1.startswith("azadi")) (iii) Formulate the code to display five letter words in the string S1.	5				

33.	In a leading cybercrime case, the Joint Academic Network (JANET) was hacked by the accused, after which he denied access to the authorized users by changing passwords along with deleting and adding files. Making it look like he was authorized personnel, he made changes in the BSNL computer database in their internet users' accounts. When the CBI carried out investigations after registering a cybercrime case against the accused, they found that the broadband Internet was being used without any authorization. The accused used to hack into the server from various cities like Chennai and Bangalore, amongst others. This investigation was carried out after the Press Information Bureau, Chennai, filed a complaint. In the verdict by the Additional Chief Metropolitan Magistrate, Egmore, Chennai, the accused from Bangalore would be sent to prison for a year and will have to pay a fine of Rs 5,000 under Section 420 IPC and Section 66 of the IT Act. (1+1+1+1+1)
	Referring to the above case, answer the following questions: a. Determine the type of hacker in the case.
	b. Is the crime committed by a group or an individual?

- c. Identify how the hacker entered the JANET.
- d. Why did the hacker change passwords, added and deleted files?
- e. What is The Government of India's IT Act, 2000?

OR

Rakesh asked his friend Akash to suggest him software for Image editing. Akash asked Rakesh whether he wanted to buy the software or use it freely. Rakesh is not interested in buying. Help Akash to find a solution for his friend by answering the following questions. (1+1+2+1)

- a. State the difference between License and Open Source License.
- b. Name two popular categories of Public Licenses.
- c. Name a FOSS for
 - i. Image editing software
 - ii. Browser
- d. Explain Software Piracy

5

	Section E	
34.	a) Rewrite the following code using the while loop: for a in range(20,2,-2): # statement1 if a%2==0: print (a*2) else: print (a*3)	4
	 b) Analyze the number of times the loop will run if statement 1 is replaced by the following statement in above code in (a) for a in range (-2,2,20): 	
35.	 a) Rahul is working on a project in which he needs to see the constant pi and trigonometric function tan. Suggest a suitable code in Python to: i) import only pi and tan function from appropriate module ii) to print value of an expression given below using appropriate import function : e^X + 10 b) Raman is writing a Python code in which he needs to add values and sublists within a list. His friend has suggested two functions - append and insert. Differentiate between these two functions with an example. 	4

Marking Scheme Computer Science 2022-23

Max. Time: 3 Hours

Max. Marks: 70

Note: This question paper contains five sections, Section A to E. General Instructions:

- 1. This question paper contains five sections, Section A to E.
- 2. All questions of a particular section must be attempted in the correct order.
- 3. SECTION A has 18 Objective Type Questions of 1 mark each.
- 4. SECTION B has 07 Very Short Answer Type Questions carrying 02 marks each.
- 5. SECTION C has 05 Short Answer Type Questions carrying 03 marks each.
- 6. SECTION D has 03 Long Short Answer Type Questions carrying 05 marks each.
- 7. SECTION E has 02 Questions carrying 04 marks each. One Internal choice is given in Q35 against part c only.
- 8. All programming questions are to be answered using Python Language only.

1.	b. CU						
2.	c. Operating system						
3.	c. Flash Drive	1					
4.	c.Utility software						
5.	c. s[3] = "R"	1					
6.	d. a=3, b=4	1					
7.	c. for k in [0,1,2,3,4,5]: print(k)						

SECTION A

8.	a. MTOYOTA							
9.	ue TUE TUE 1							
10.	5 1							
11.	c. Count# 1							
12.	d. Be independent							
13.	a. Digital Footprint							
14.	a. Copyright Infringement	1						

15.	b. Ethical- i,iii and Non-Ethical- ii, iv							
16.	Adware, Malvertising							
	Adware may collect user or browsing information to display customized banners or popup advertisements while the program is running. However, if this data is collected or sold to third parties without the user's knowledge and authorization, it is classified as spyware, also known as malvertising.							
	 Q17 and 18 are ASSERTION AND REASONING based questions. Make the correct choice as a. Both A and R are true and R is the correct explanation of A b. Both A and R are true and R is not the correct explanation of A c. A is True but R is False d. A is False but R is True 							
17.	c. A is True but R is False							
18.	a. Both A and R are true and R is the correct explanation of A							
	SECT	TION B						
19.	Akash's laptop uses Unicode encoding scheme and it incorporates all the characters of every written language of the world irrespective of device, operating system and software application. Sara's laptop uses the ASCII encoding scheme that mainly supports characters from the English language.							
20.	20. i. (11011.101) ₂ =(33.5) ₈ ii. (A73) ₁₆ =(101001110011) ₂ or							
	Compiler	Interpreter						
	Compiler converts source code into machine code in one go	Interpreter translates one line at a time instead of the whole program at one go.						
	once translated the compiler is not needed	interpreter is always needed whenever a source code is to be executed.						
21.	Ans : (AB)'.(A+B')							

22.	b) three@four@five@six@							
	min value of e = 4 Max value of s = 5							

23.	Match the following :	2
	a(iv) b(iii) c(i) d(ii)	
24.	n= <u>int(</u> input('Enter a number') <u>)</u>	2
	<u>f</u> or k in range (2,20) <u>:</u>	
	print(n/2)	
	print('Bye')	
	OR	
	import random	
	s=0	
	for i in range(5):	
	s=s+random.randint(50,70)	
	print (s)	
25	When we continuously look at the screen for watching, typing, chatting or playing	2
23.	games, our eves are continuously exposed to the glare coming from the screen. This	2
	is why increased screen time is a common complaint by the childrens.	
	OR	
	Cyber Appellate Tribunal has been established to resolve disputes arising from cyber	
	crime, such as tampering with computer source documents, hacking the computer	
	system, using the password of another person, publishing sensitive personal data of	
	others without their consent, etc. <u>OR</u> The act is needed so that people can perform	
	transactions over the Internet through credit cards without fear of misuse. Not only	
	people, the act empowers government departments also to accept filing, creation and	
	storage of official documents in the digital format.	



```
27.
      WAP to accept a string and replace all occurrences of digits present in the string by
                                                                                           3
      '#'.
      st1=input('Enter a string')
      st2=' '
      for i in st1:
       if i in '0123456789':
         st2=st2+'#'
       else:
         st2=st2+i
      print (st2)
                   or
      Consider the code given below:
                    import string
                     name='computer2@myworld3#'
                    n=''
                    for x in name:
                         if x.isalpha():
                                   n=n+x.upper()
                         elif x.isdigit():
                                   n=n+x
                         elif x.isupper():
                                   n=n+x.lower()
                         else:
                                   print('all the best')
                     print(n)
      Answer the following questions based on the code above:
          a. 2 times
          b. COMPUTER2MYWORLD3
```

28.	n= int(input('Enter number of employees '))	1/2
	for i in range(n):	1/2
	ns=int(input('Enter sales in region 1'))	1/2
	if ns >100000:	
	inc = ns*.10	
	elif ns >75000 :	1
	inc = ns*.07	
	else:	
	inc=ns*0.05	
		1/
	print (inc)	<i>7</i> 2
	or	
	amt= int(input('Enter total bill '))	
	custnum=int (input('Enter customer number '))	1/2
	if amt >=5000:	
	netamt=amt- amt*0.2	
	elif amt> 1000 :	
	netamt=amt- amt*0.1	
	elif amt> 500 :	1
	netamt=amt- amt*0.05	
	else:	
	netamt=amt	
	if custnum%100==0:	1/2
	netamt=netamt- netamt*0.02	¹ / ₂
	print (netamt)	1/2
29.	import statistics as s	3
	L1=[12,14,16,18,20]	
	L2=[13,15,17,19,21]	
	L3=[]	
	for i in range (len(L1)):	
	L3.append(L1[i])	
	L3.append(L2[i])	
	print (L3)	
30.	1-c, 2-d, 3-a, 4-b	½+½ +½+
	b. Give one word.	1/2
	i. Digital Signature	
	ii. Sensitive data.	1/2+1/2
1		1

31.	i) inventory={'Pencil':5,'Notebook':100,'Clip':700} ii) print(len(inventory))	5
	iii) inventory['Eraser']=200	
	iv) inventory['Notebook']=inventory['Notebook']+50	
	v) print(max(inventory.items()))	
32.	Question consider the following string	
	S1= " Azadi ka Amrit Mahotsav"	5
	(i) statement 1 : OTS	
	statement 2 : ots	
	(ii) False	
	(iii)	
	S1= 'Azadi ka Amrit Mahotsav'	
	w=S1.split()	
	for i in w:	
	if len(i)==5:	
	print(i)	
33.	(1+1+1+1)	5
	a. Non-ethical hacker	
	b. individual	
	c. When the CBI carried out investigations after registering a cybercrime case against the accused, they found that the broadband Internet was being used	
	without any authorization. The accused used to hack into the server from	
	various cities like Chennai and Bangalore, amongst others.	
	d. The attacker changed passwords along with deleting and adding files so that he can blackmail the victim to pay for getting access to the data.	
	e. The act provides a legal framework for electronic governance by giving	
	recognition to electronic records and digital signatures. The act outlines cyber	
	crimes and penalties for them.	
	OR	
	(1+1+2+1)	
	a. Licenses are provided by the author by sharing their copyrighted work with	
	others whereas Open Source Licenses does not need special permission from	
	the author.	
	b. GPL-General Public License. CC-Creative Common	
1		
	c. i. Image editing-GIMP, etc ii. Browser-Netscape Navigator etc	

34.	a)	a=20			4					
		while a	a>2:							
		if a%	52 ==0 :							
		pr	int (a*2)							
	else:									
	print (a*3)									
	print (a' 5)									
	a-=2									
		_								
	b)	1								
35.	a)				4					
		ii)	pow(e,10)+10							
	b)									
			append()	insert()						
		def	adds an item at the end of the list	insert an item at defined index						
		eg	L1=['Hello','and']	L1=['Hello','and']						
			L2 = ['Good', 'Morning']	L2 = ['Good', 'Morning']						
			L1.append(L2)	L1.insert(0,L2)						
			print(L1)	print(L1)						
			_							
			Output:	Output:						
			[['Hello','and',['Good', 'Morning']]	[['Good', 'Morning'],'Hello','and']						
					I					

CLASS-XI ECONOMICS (2022-23)

Time allowed: 3 Hrs

Maximum Marks: 80

General Instructions:

- 1. All questions in both the sections are compulsory.
- 2. Marks for questions are indicated against each question.
- 3. Question Nos. 1-10 and 18-27 are very short answer questions carrying one mark each. They are required to be answered in one sentence each.
- 4. Question Nos. 11-12 and 28-29 are short answer questions carrying three marks each. Answers to them should normally not exceed 60 words each.
- 5. Question Nos. 13-15 and 30-32 are also short answer questions carrying four marks each. Answers to them should normally not exceed 70 words each.
- 6. Question Nos. 16-17 and 33-34 are long answer questions carrying six marks each. Answers to them should normally not exceed 100 words each.





1. The pie chart shows the component of expenditure for the cost of sugar. (1)

What will be the angle representing the cost of raw material of sugar?

- A. 80°
- B. 52°
- C. 84°
- D. 25°

- 2. The most suitable average for qualitative measurement is (1)
 - A. Arithmetic mean
 - B. Median
 - C. Mode
 - D. Weighted mean
- 3. Read the following statements: Assertion (A) and Reason (R). Choose one of the correct alternatives given below: (1)

Assertion(A): A low value of r (close to zero) always indicates a weaker relation between the two variable X and Y.

Reason (R): A low value of r (close to zero) indicate a weak linear relation but there may be a non linear relation too.

Alternatives:

- A. Both Assertion (A) & Reason (R) are True & Reason (R) is the correct explanation of Assertion (A)
- B. Both Assertion (A) & Reason (R) are True & Reason (R) is not the correct explanation of Assertion (A).
- C. Assertion (A) is True but Reason (R) is False.
- D. Assertion (A) is False but Reason (R) is True.

OR

Diagram given below represents______ degree of correlation between the variable X and Y.

Choose the correct alternative.



- A. Perfect positive correlation
- B. High degree of negative correlation
- C. Perfect negative correlation
- D. Positive correlation
- 4. Choose the correct alternative to find the combined mean: (1)

A.
$$\frac{N1\overline{X}1\pm N2\overline{X}2}{N1+N2}$$

B.
$$\frac{N1\overline{X}1 - N2\overline{X}2}{N1+N2}$$

C.
$$\frac{N1\overline{X}1 + N2\overline{X}2}{N1\times N2}$$

D. $N1\overline{X2}+N2\overline{X1}$

N1+N2

- 5. Read the following statements carefully and choose the correct alternative: (1)
 - 1. Median can be derived graphically by histogram.
 - 2. Median can be derived graphically by less than ogive.
 - 3. Median can be derived graphically by frequency polygon.
 - 4. Median can be derived graphically by both the ogive.

Alternatives:

Choose the correct alternative:

- A. 1 and 2 are correct
- B. 2 and 4 are correct
- C. 2 and 3 are correct
- D. 1 and 4 are correct
- 6. Read the following statements carefully:

(1)

Statement 1 - Correlation measures covariance, not causation.

Statement 2 - If r = 0, There is no relationship between the two variables. Choose the correct alternative:

- A. Statement 1 is true and statement 2 is false.
- B. Statement 1 is false and statement 2 is true
- C. Both statements 1 & 2 are true.
- D. Both statements 1 & 2 are false.
- 7. Mean marks obtained by 200 students are 80. Later on, it was found one value was read as 166 instead of 106. The correct Arithmetic mean of the data will be . (1)
 - A. 79.00
 - B. 70.90
 - C. 77.90
 - D. 79.70

OR

Weighted mean of three values 10, 20, 30 will be ______ if they are given

1,2,3 as weights respectively.

Choose the correct alternative:

- A. 22.3
- B. 23.2
- C. 23.3
- D. 33.2
- 8. In a class of 15 students, 5 students failed in an examination. The marks of the students who cleared the examination are given below, choose the median marks of the passed students from the following alternatives.

STUDENT	1	2	3	4	5	6	7	8	9	10
MARKS	8	7	6	4	6	5	6	5	7	8

Alternatives

- A. 5
- B. 4
- C. 6
- D. 8
- 9. Salary of Rahul was Rupees 10,000 in base year. The current CPI is 225 and his current salary is 21000.

How much salary should Rahul earn to maintain the same standard of living as of base year? (1)

- A. 21,500
- B. 22,500
- C. 23,500
- D. 24,500

OR

Which of the following statements is correct about average prices if the price index is 110?

- A. The prices have increased by 10 per cent.
- B. The prices have increased by 110 per cent.
- C. The prices have decreased by 10 per cent.
- D. The prices have decreased by 110 per cent.

10. If the mean of a series is 38 and mode is 44. Median of the data will be _____. (1)

- A. 40
- B. 45
- C. 46
- D. 48

11. Statistics is an indispensable tool for economists. Elaborate. (3)

OR

Identify the features of statistics as statistical data from the following statements.

- A. Aditya has rupees hundred in his pocket is not an example of statistics.
- B. The teacher counted the number of girls in a class while the number of people who witnessed the Republic Day parade were approximated to be 1 lakh.
- C. The population of India is rapidly increasing.

- 12. In classified data an individual observation has no significance in further statistical calculation. Validate the given statement with the help of suitable example. (3)
- 13.Suppose you want to know about the popularity of soccer player among the school students. For this, you will have to enquire from a large number of school students to collect desired information.
 - A. From the given information, identify the source of data involved in drawing such information.
 - B. State and explain three different methods of collecting such data. (4)
- 14. A school organized an inter school competition for two consecutive years.
 In 2018, out of a total of 1000 students, 775 participated in an Inter school competition. The number of girls were 125, out of which 100 did not participate.
 In 2019, the number of students participated in inter school competition were 850 out of which 800 were boys. The number of non participants was 190 among which 75 were girls.

Tabulate the above information.

(4)

- 15. Calculate the weighted average price index from the following information: (4)
 - A. by taking current year's quantity as weight

COMMODITY	BAS	E YEAR	CURRENT YEAR		
	Р	Q	Р	Q	
RICE	10	6	15	8	
WHEAT	25	10	40	20	
OIL	30	15	45	12	
PULSES	15	20	30	15	
SUGAR	20	8	25	6	

B. by taking base year's quantity as weight

OR

Elucidate precautions to be taken while construction of an index number?

16. A. Derive the median graphically using less than Ogive.

MORE THAN	CF
More than 60	9
More than 50	11

More than 40	14
More than 30	21
More than 20	25

A. Prove that sum of the deviations from arithmetic mean is always zero. (4+2)

17.Examine whether there is any correlation between years of schooling of farmers and annual yield on the basis of following data, using Karl Pearson's method and interpret the result. (6)

Years of	1	3	4	5	7	8
schooling						
Annual yield	2	6	8	10	14	16

OR

Seven contestants in a poetry competition are judged by two judges in the following order. Calculate rank coefficient of correlation and also interpret the results.

JUDGE 1	12	10	8	10	11	9	15
JUDGE 2	26	20	24	20	18	22	20

Part – B (Micro Economics)

- 18. Which of the following statement is normative? (1)
 - A. People work harder if the wage is higher.
 - B. Large government deficits cause an economy to grow more slowly.
 - C. Reducing inequality should be a major priority for mixed economy.
 - D. Printing too much money cause inflation.
- Mr. John derives TU of 10 utils after having 4 burgers and TU of consuming 5 burgers is 9. What is the MU of Mr. John for the 5th burger? (1)
 - A. +1 Util
 - B. -1 Util
 - C. 0 Util
 - D. 9 Util.

OR

Marginal Utility of a good is : A. Always Positive

- B. Always Negative
- C. Initially positive then negative
- D. Initially Negative then Positive
- 20. Choose the Correct Pair from the following.

(1)

Column 1	Column 2
1. Law of DMU	1. Point of Satiety
2. Marginal Utility	2. Fundamental Psychological Law
3. MRS	3. Slope of Indifference Curve
4. Indifference Map	4. $\Delta TU/\Delta Q$

Alternatives :

A. (1,1)
B. (2,2)
C. (4,4)
D. (3,3)

OR

TU is ______ at the point of Satiety. (Fill in the blank)

- A. Maximum
- B. 0
- C. Infinity
- D. Minimum
- 21. There are only two consumer (x and y) in a market and their demand function are given as

Qx = 30-2P Qy = 40-3p

Choose the market demand at price Rs. 10/- per unit. (1)

- A. 30
- B. 20
- C. 40
- D. 10

22. In the following figure point 'D' represents _____. (1)



- A. Bundle which cost exactly the consumer's income.
- B. Bundle which cost less than the consumer's income
- C. Bundle which is unattainable
- D. Both B and C.

23.

Read the following statements carefully:

(1)

(1)

Statement 1 - When price falls with rise in output then both AR and MR curves slope upwards.

Statement 2 - When firms can increase their volumes of sales only by decreasing the price, then AR curve is steeper than MR curve.

Choose the correct alternative:

- A. Statement 1 is true and statement 2 is false.
- B. Statement 1 is false and statement 2 is true
- C. Both statements 1 & 2 are true.
- D. Both statements 1 & 2 are false.
- 24. Read the following statements carefully:
 - Statement 1: Every producer aims to maximize the total profits and profits increase as long as MR exceeds MC.
 - Statement 2 : At producer's equilibrium, AR should be at least equal to AVC. Choose the correct alternative:

hoose the correct alternative:

- A. Statement 1 is true and statement 2 is false.
- B. Statement 1 is false and statement 2 is true
- C. Both statements 1 & 2 are true.
- D. Both statements 1 & 2 are false.

Q. 25. The Coefficient of Es of a commodity is 0.4. What percentage change in supply will take place if its price rises by 20%. (1)

- A. 10%
- B. -8%
- C. 8%

D. -10%

OR

Identify the Elasticity of supply of curve A and B from the following diagram:



A. A(Es > 1), B (Es < 1) B. A (Es < 1), B (Es > 1) C. A (Es > 1), B (Es > 1) D. A (Es < 1), B (Es < 1)

26. Read the following statements: Assertion (A) and Reason (R). Choose one of the correct alternatives given below: (1)

Assertion (A) : There is absence of abnormal profits and abnormal losses in the short run in case of perfect competition.

Reason (R): Under perfect competition, each firm faces a perfectly elastic demand curves.

Alternatives:

- A. Both Assertion (A) & Reason (R) are True & Reason (R) is the correct explanation of Assertion (A)
- B. Both Assertion (A) & Reason (R) are True & Reason (R) is not the correct explanation of Assertion (A).
- C. Assertion (A) is True but Reason (R) is False.
- D. Assertion (A) is False but Reason (R) is True.

27. Read the following statements: Assertion (A) and Reason (R). Choose one of the correct alternatives given below: (1)

Assertion (A) : Minimum wage legislation is an example of imposition of price floor.

Reason (R) : Under Minimum wage legislation, minimum wages are set below the equilibrium wages.

Alternatives:

- A. Both Assertion (A) & Reason (R) are True & Reason (R) is the correct explanation of Assertion (A)
- B. Both Assertion (A) & Reason (R) are True & Reason (R) is not the correct explanation of Assertion (A).
- C. Assertion (A) is True but Reason (R) is False.
- D. Assertion (A) is False but Reason (R) is True.
- 28. Economic slowdown due to Covid has adversely affected demand for Indian Exports. What will be its effect on the production possibility frontier? (3)

OR

Why does the problem of choice arise for producer and consumers?

29. In order to attract tourism to Jammu, Indian Government has recently launched special train Vande Bharat from Delhi to Katra, which has made journey comfortable and cheaper, compared to air travel.

Comment how will the launch of this train effect the demand for the air travel. Use diagram and schedule. (3)

30. If consumer consumes only two goods, for the consumer to be in equilibrium, why MRS between the two goods must be equal to the ratio of prices of these two goods. Is it enough to ensure equilibrium? (4)

OR

Giving suitable reason, state whether the following statements are true or false.

- a) Indifference curve to the right in indifference map always shows higher utility level.
- b) Marginal rate of substitution increases as we move downward along the indifference curve.

31. The demand curve of a commodity is expressed as Dx = 40 -2p. If slope of demand curve is given to be (-2). (4)

- a) Calculate price elasticity of demand for the commodity when price of the commodity is Rs. 5/- unit.
- b) If price rises to Rs. 6/- unit. Calculate the price elasticity of demand using expenditure method.
- 32. Government of India has reduced the custom duty on the import of lithium, a vital

component for batteries used for electronic vehicles. How does this effects the equilibrium price of the electronic vehicles in India. Explain the chain effects. (4)

- 33. A. What type of changes take place in TP and MP when there are increasing and diminishing returns to a factor?
 - B. Differentiate between returns to a factor and returns to scale. (3+3)

OR

Giving suitable reason state whether the following statements are True or false:

- A. Can AP rise when MP is falling?
- B. Average Revenue is always equal to Price.
- C. A rational producer always operates in the first phase of production. (2+2+2)

34. Recently Times of India covered a real life story of a budding entrepreneur, Virat an engineering graduate who has launched his company Virat Engineering, a transportation venture. He purchased a goods carrier using partly his own saving Rs. 5,00,000 and partly by borrowing money Rs. 4,00,000 from bank at interest rate of @ 10% per annum. He hires a driver to drive the carrier and salary of driver is Rs. 15,000 per month(fixed), taken an office on rent for Rs. 8,000 per month. He also incurred the other expenses electricity bill Rs. 50,000, Telephone Bill Rs. 10,000. At the end of fiscal year, he found that both the average and marginal costs has increased so he immediately arranged meeting to form strategies to increase profit and reduce cost of the company.

i) Calculate explicit and implicit cost.

ii) Fill in the blank.	(3+3)
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OUTPUT (UNIT)	1	2	3	4	5	6
AC	12	10		10.5	11	
MC			10			17

ECONOMICS 2022-23 MARKING SCHEME / HINTS TO SOLUTIONS

NOTE: ANY OTHER RELEVANT ANSWER NOT GIVEN HEREIN BUT GIVEN BY CANDIDATE BE SUITABLY AWARDED.

TIME 3 HRS M.M. 80

Q. No	Value points	Marks	Total Mark s
1.	(A) 80°	1	1
2.	(B) Median	1	1
3.	(B)Both Assertion (A) & Reason (R) are True & Reason (R) is not the correct explanation of Assertion (A).OR(D) Positive correlation	1/2 1/2	1
4.	A. $\frac{N1\overline{X}1 + N2\overline{X}2}{N1 + N2}$	1	1
5.	(B) 2 and 4 are correct	1	1
6.	(C) Both statements 1 & 2 are true.	1	1
7.	(D) 79.70 OR (C) 23.3		
8.	(C)6	1	1
9.	(B) 22500 OR (A) The prices have increased by 10 per cent.	1/2 1/2	1

10.	(A) Median = 40 Mode = 3 Median - 2 Mean 44 = 3 Median - 2(38) 44 + 76 = 3 Median 120 = 3 Median Median = 40	1/2 1/2	
11.	 It enables an economist to present economic facts in a precise and definite form. It helps in condensing mass data into few numerical measures. It is used in finding relationship between different economic factors. 	1 1 1	
	OR Aggregate of facts Enumeration and estimation Numerically expressed. 	1 1 1	3
12.	There is a loss of information in classifying raw data though much is gained by summarizing it as a classified data. Once the data are group in classes, an individual observation has no significance in further statistical calculation.	1 1/2	
	For example : In class 20 - 30 contains six observations 25,20,25,22,25 and 28. All the values in the class assumed to be equal to the middle value of the class interval that is 25. Thus the use of middle value instead of the actual values of the observation in the statistical methods involves considerable loss of information.	1 1/2	3
13.	A. Primary source of data P. Three sources of collecting primary data:	1	
	 Personal interviews - This method is used when the researcher has to accept all the members the investigator conduct face to face interview with respondents. 	1	
	2. Mailing questionnaires - When the data in a survey are collected by mail the questionnaire is sent to each and every individual by mail with the request to complete and return it by a given date	1	
	 Telephonic interview - In our telephonic interview the investigator asked questions over the telephone. They are cheaper than the personal interviews and can be conducted in shorter time. 	1	4

14.	Tables	showing the	Tab number of (Data is fo	le num f studer or 2018	ber I nts in inter sch and 2019)	hool com	petition	1/2	
		2018			2019				
		Participants	Non- Participa nts	Total	Participants	Non- Particip ants	Total		
	BOY S	750	125	875	800	115	915	3	
	GIRL S	25	100	125	50	75	125	1/2	1
	TOT AL	775	225	1000	850	190	1040	/2	4
	Footnot Source	e : :							

COMMODITY	Ро	Qo	P1	Q1	PoQo	P1qo	PoQ1	P1Q1		
Rice	10	6	15	8	60	90	80	120		
Wheat	25	10	40	20	250	400	500	800		
Oil	30	15	45	12	450	675	360	540	2	
Pulses	15	20	30	15	300	600	225	450		
Sugar	20	8	25	6	160	200	120	150		
TOTAL					1220	1965	1285	2060		
B. BASE Y	'EAR	RS QU	JAN	= <u>2</u> 1 ITITY Po	$\frac{060}{285}$ * 10 285 2 AS W $1 = \sum I$ $\sum Po(0)$ = 1965)0 EIGHT <u>21Qo</u> * Qo 5_*100	= 160. SS * 100 = 161.	3% 06%	1	4
 Purpose Items to Base ye 	of i be co ar sho	ndex ollect	num ed ca be a	ıber areful norm	122 <u>OR</u> ly al year	0				

15.



YEAR OF SCHOOLING	dx (X-5)	dx2	ANNUAL YIELD (Y)	dy (y-8)	dy2	dxdy	
1	-4	16	2	-6	36	24	
3	-2	4	6	-2	4	4	
4	-1	1	8	0	0	0	
5	0	0	10	2	4	0	
7	2	4	14	6	36	12	2 1/2
8	3	9	16	8	64	24	
TOTAL	-2	34		8	144	64	
$\int N \Sigma dx^{2} - (\Sigma X)^{2} dx^{2} - (\Sigma X)^{2} dx^{2} - (\Sigma X)^{2} dx^{2} - (\Sigma X)^{2} dx^{2} = \frac{(6^{*}64) - (-2^{*}8)^{2}}{\sqrt{(6x34)} - (-2)^{2} x}$ $r = \frac{384 + 1}{\sqrt{200x}} \sqrt{80}$ $r = \frac{384 + 1}{\sqrt{200x}} \sqrt{80}$ $r = \frac{400}{\sqrt{160000}}$ $r = \frac{400}{400}$	$\frac{1}{6}$	$\frac{1}{2}; \sum dy^2 - (2)^2$	y=8 ; N=6 ; Σ	_dx ² =34	ŀ ;∑d	y ² =144	1
·= 1 There exists a po	erfect posi	tive co	prrelation betw	veen the	e two v	variables.	
Ĩ	1	-				-	
							1

JUDGE 1	JUDGE 2	R1	R2	D (R1- R2)	D^2		
12	26	2	1	1	1		
10	20	4.5	5	-0.5	0.25		
8	24	7	2	5	25		
10	20	4.5	5	-0.5	0.25	2	
11	18	3	7	-4	16		
9	22	6	3	3	9		
15	20	1	5	-4	16		
TOTAL				$\Sigma D = 0$	67.50		
$k = 1 - \frac{6 [67.50 + 1/12(2^{3}-2) + 1/12(3^{3}-3)]}{7^{3}-7}$ $k = 1 - \frac{6 [67.50 + 0.5 + 2]}{7^{3}-7}$ $k = 1 - \frac{6 [70]}{336}$ $k = 1 - \frac{420}{2}$						2	
$\overline{336}$ $k = 1 - \underline{5}$ 4 $rk = 1 - 1.25$ $rk = -0.25$ Interpretation : There exist moderate degree of negative correlation between the variables						1	

	Section-B (Microeconomics)		
18	(C) Reducing inequality should be a major priority for mixed economy.	1	1
19	(B) -1 UtilsOR(C) Initially positive then negative.	1	1
20	(D) 3,3 (A) Maximum	1	1
21	(B) 20	1	1
22	(B) Bundle which cost less than the consumer's income.	1	1
23	(D) Both statements 1 & 2 are false.	1	1
24	(A) Statement 1 is True, and Statement 2 is False.	1	1
25	(C) 8% (A) $A[E_s > 1], B[E_s < 1]$ Or	1	1
26	(D) Assertion (A) is False and Reason(R) is True	1	1
27	(C) Assertion (A) is True and Reason(R) is False	1	1

28	There will be no effect on production possibility frontier of India. It is because PPF shows only what a country can potentially produce and not what is actually produce. Reduction in demand for Indian exports, may bring down output, therefore production will take place at a point somewhere in the economy will be below its potential	1.5 1.5	3
	Or The Problem of choice arises for producers because of • Limited resources • Having alternative uses	1.5	
	 The Problem of choice arises for the consumers because Their wants are unlimited Scarce means. 	1.5	
29.	Demand for air travel will fall as train travel is cheaper.	1	
	Price D' D	1	
	Demand for Air travel		

		1		3
Air Fare (Rs)	Demand (No. of passengers)			
2500	50		1	
2500	30		I	
		-		

30	For the consumer to be in equilibrium, MRSxy must be equal to $P_{x}\!/P_{y.}$	1	
	If $MRS_{xy} > P_x/P_{y}$, it means consumers is willing to sacrifice more units of good Y to have an additional unit of good X than what market requires. So he will consume more units of Good X as a result MRS starts falling till equality is attained i.e. $MRS_{xy} = P_x/P_y$.	1	
	If $MRS_{xy} < P_x/P_y$, it means consumers is willing to sacrifice less units of good Y to have an additional unit of good X than what market requires. So he will consume more units of good Y as a result MRS starts increasing till equality is attained i.e. $MRS_{xy} = P_x/P_y$.	1	
	The first condition that is $MRS_{xy} = P_x/P_y$ is not the only condition to ensure equilibrium. It is the second condition that is falling MRS that ensures the equality between the two.	1	
	Or		
		2	
	(a) True, as combinations depicted by indifference curve towards right shows more units of either one good or both the goods		
	which represent higher level of satisfaction. Since consumer is monotonic in his preferences, IC towards right shows higher utility.	2	4
	(b)False, As MRS tends to fall as we move downward along the indifference curve due to the operation of the law of Diminishing Marginal Utility.		

31	(a) $E_d = \frac{l}{Slope} \times \frac{P}{Q}$					
	$=\frac{1}{-2} \times \frac{5}{10}$					
	=	- 0.25				
	(b) $P_0 = 5$, $Q_0 = 40 - 2x5 = 30$ $P_1 = 8$, $Q_1 = 40 - 2x8 = 24$					
	Price	Quantity	Total Expenditure			
	$P_0 = 5$	$Q_0 = 30$	150		C	4
	P ₁ =8	$Q_1 = 24$	192		Z	4
	As t E _d <	both price and to 1.	otal expenditure	move in same direction so		
32	It leads to decrease in the price of Lithium, (Raw ,material to be used in the production of batteries) hence the supply increases and the supply curve shifts to the right. • It creates an excess supply at the original equilibrium price.					
	 It leads to competition among the sellers. Reduction in prices which leads to expansion in demand and contraction in supply. These changes continue till the new equilibrium is established. Equilibrium price falls and Equilibrium quantity rises. 				3	4

33	 A. TP increases at increasing Rate and MP also rises due to Better utilisation of fixed factors Increased efficiency of variable factors. TP increases at diminishing rate and MP starts declining due to factors of production are imperfect substitute of each other. Over utilisation of fixe factors. B. 	1 ¹ / ₂ 1 ¹ / ₂									
	Returns to a factor Returns to Scale										
	 Change in the TP when only one factors is increased, keeping all other factors fixed. Change in output when all the factors inputs are change in the same proportions. 	3									
	• There is no change in scale of production. • There is a change in scale of production.										
	• It applies in short Run • It applies in Long run.										
	Or A. Yes, AP can rise when MP starts declining. It can happen as long as falling MP is more than AP. However, when MP	2									
	becomes equal to AP, then further decline in MP will also reduce the AP.	2									
	B. True, $AR = \frac{TR}{output}$										
	 AR = Price x Output Output AR = Price C. False, a rational producer always operates in the II phase as here TP reaches its maximum and MP of each variable factor is positive. 	2	6								
34.	A. Expli	$\cot \cos t = 4$ = 2	0,000 · 3,76,00	+ 1,80)0),000 +	- 96,000	+ 50,0	000 +10	,000	2	
-----	----------	--------------------------	--------------------	--------------	-----------	-----------	-----------	-----------	------	--------------------------------	---
	Impl	icit cost $=$	5,00,00	00						1	
	Β.	OUTPU T	1	2	3	4	5	6			
		(UNIT)									
		AC	12	10	<u>10</u>	10.5	11	<u>12</u>			
		MC	<u>12</u>	<u>8</u>	10	<u>12</u>	<u>13</u>	17		¹ / ₂ *6	6

CLASS-XI ENGLISH CORE (301) SAMPLE PAPER- 2022-23

TIME ALLOWED: 3 HOURS

MAXIMUM MARKS: 80

(26 Marks)

(10)

GENERAL INSTRUCTIONS:

- 1. This paper comprises 3 sections- Reading Comprehension (26 marks), Writing Skills & Grammar (23 marks) and Literature (31 marks)
- 2. Attempt all questions.
- 3. Do not write anything on the question paper.
- 4. All the answers must be correctly numbered as in the question paper and written in the answer sheet provided.
- 5. Ensure that questions of each section are answered together.
- 6. Read each section carefully and follow the instructions.
- 7. Adhere to the word limit wherever prescribed.

Section –A (Reading Skills)

Typology Reading Skills		Conceptual understanding, decoding, analysing,
		inferring, interpreting, appreciating literary conventions
		and vocabulary, summarising and using appropriate
		format/s

I. Read the following passage very carefully:

1. Panchayati Raj goes a long way in accomplishing community participation and empowering the marginalised and vulnerable in the hinterland through grassroots administrative institutions.

2. Panchayati Raj Institutions (PRIs) play a predominant role in the delegation of power and resources to villages. The role of PRIs acquires crucial significance in the attainment of cherished ideals of good governance including Gram Swaraj and localisation of Sustainable Development Goals (SDGs).

3. Mahatma Gandhi deserves special mention for conceptualising Panchayat Raj in India. He envisioned panchayats as a small self-sufficient republic that entails total participation of the people and equal opportunities for all.

4. The 1993 amendment has proved to be a catalyst in bringing more than 14.5 lakh women into leadership roles in the country's local governance. At present as many as 20 states have 50% seats reserved for women in their PRIs. States such as Karnataka are giving the much-needed impetus to women into governance with more than 50% women representation in PRIs. Since ages, the prerogative of men in politics and governance is slowly and steadily changing at the grassroots and women are at the forefront making their way in a field from which they have historically been excluded. To top it all, while the Covid crisis had disproportionate impact on women, in terms of increased vulnerability to job and income losses, and heightened burden of care work, women have shined through as being the first responders in their roles as frontline health workers, and local leaders in PRIs and Self-Help Groups.

5. Panchayat Palli in Jammu was selected for the Panchayati Raj Diwas event this year and an exhibition showcasing latest innovations was put up enabling farmers, sarpanchs and village heads to advance their income and their produce.

6. The need and demand for good governance is fuelled with the rapid expansion of the economy as well as the growing awareness for proclamation of rights by the populace. PRI engagement is possibly the only existing mechanism to accomplish large-scale community participation and empower the marginalised and vulnerable, particularly women, children, and the poor. While the centre and the state government are together implementing various development programmes, it all boils down to PRIs to have a definite mandate for realisation of the goal towards improving the quality of life in rural areas. To sum up in the words of Mahatma Gandhi, "When the Panchayat Raj is established, public opinion will do what violence can never do."

(Source- India Today- Focus- Panchayati Raj)

I.A) On the basis of your reading the passage, answer the following questions by choosing the best of the given options: (1x5=5)

i. Complete the sentence by choosing the appropriate option:

Panchayati Raj Institutions have been formed for-

- a. assigning excess power to villages
- b. assigning power and resources to villages
- c. taking away power and resources from villages
- d. converting villages into metropolitan cities

ii. According to para-3, which of the options most appropriately describes the impact of Covid crisis on women in villages?

- a. drastic fall in job opportunities
- b. increased stress of care work
- c. outshined as first responders in roles as frontline health workers
- d. All the above

iii. Select the most suitable title for the above passage-

- a. Gandhiji's vision for PRIs
- b. Role of Women in PRIs
- c. Flagbearers of Participative Democracy
- d. Central government Vs PRIs
- iv. Statement-A: Panchayat Palli in Jammu was selected for the Panchayati Raj Diwas event this year. Statement-R: Exhibition showcasing latest innovations was put up to advance their income and their produce.
 - a) Both A and R are true and R is the correct explanation of A.
 - b) Both A and R are true but R is NOT the correct explanation of A.
 - c) A is true but R is false.
 - d) A is false but R is true.

v. Select the option that conveys the opposite of 'catalyst'.

- a. adjuvant
- b. agitator
- c. stimulant
- d. hindrance

I.B) Answer the following questions:

vi. In what way did Mahatma Gandhi try to attain localization of SDGs while conceptualising Panchayat Raj in India?

vii. Comment on the role of women in the country's local governance after the amendment of 1993.

viii. List two reasons for the requirement of good governance.

ix. What do you understand by Gandhiji's belief as given in the last paragraph?

x. Find a word from the last paragraph which means the same as 'inhabitants'.

II. Read the following passage carefully:

(8)

1. AITU, a sleepy town in Faridkot district, is in the heart of Punjab's cancer belt, where experts believe the extensive use of fertilisers and pesticides has impacted the health of generations. One person waging a personal war against this man-made nightmare is Umendra Dutt, founder member and the Executive Director of Kheti Virasat Mission (KVM).

2. Dutt was part of the national Task Force on Organic farming & Chemical-Free Farming that the Union Agriculture Ministry constituted soon after Prime Minister Narendra Modi began his first term. The panel recommended that at least Rs.12,500 crore a year be allocated to expand the sector, laying the foundation for the push in organic farming. But amid all the real-world exigencies, the money-and the sowing-haven't kept pace with the intentions.

3. In this year's budget, Union Finance minister Nirmala Sitharaman laid out the blueprint for chemical-free farming on both sides of the Ganga in five states, creating an organic/natural corridor totalling 1.23 mha and dedicated to growing fruits, vegetables, herbs and medicinal plants. The states involved-- Uttarakhand, Uttar Pradesh, Bihar, Jharkhand and West Bengal-could tap into the annual Rs. 20,000 crore budget for the National Mission for Clean Ganga.

4. The Agriculture Ministry is setting smaller, achievable targets. Officials say their focus is on promoting chemical-free agriculture in tribal, hilly and agro-forestry areas. The hilly terrain of smaller states like Meghalaya, Mizoram, Uttarakhand and Goa have some 10 percent of their farmland dedicated to organic cultivation.

5. It has also criminalised the sale and purchase of chemical fertilisers and pesticides in these blocks. However, it is the bigger states that have to do the catching up: their figures for organic farming are embarrassingly small. MP has 4.9 percent, Rajasthan 2 percent and Maharashtra just 1.6 percent of their farms dedicated to organic produce.

6. Punjab is a story by itself, with some plot elements specific to it. Some 85 percent of its crops-paddy, wheat and cotton- are produced by central agencies such as the Food Corporation of India and Cotton Corporation of India. Most of its farmers focus on growing crops that have this guaranteed procurement safety net. That's also an incentive to grow more, which is why they put all their effort into volumes.

(1x5=5)



(Source- India Today- Special Report on Agriculture)

II.A) On the basis of your reading the passage, answer the following questions by choosing the best of the given options: (1x4=4)

i. Select the correct option of states where organic farming is below 5%.

- a. Meghalaya, Rajasthan, MP
- b. MP, Mizoram, Goa
- c. Rajasthan, MP, Maharashtra
- d. Maharashtra, Goa, Uttarakhand

ii. Is the following statement in line with what is mentioned in para-2?

The money allocated for the expansion of organic farming and the real world requirements are healthily moving towards the intentions.

- a. true
- b. false
- c. partially true
- d. partially false

iii. As a farmer you wish to shift to organic farming. According to the bar chart, which of the crops would you select that will bring out much variation in your pricing.

- a. mustard oil, cotton, Samai Rice
- b. sugarcane, jaggery, coffee
- c. cotton, tomatoes, jowar
- d. potatoes, bajra, cotton

iv. Which of the following statements accurately concludes the given passage?

a. The basic problem for an ordinary farmer remains- Organic farming is expensive.

- b. The organic and natural produce is often visually less appealing in shape and colour.
- c. Organic farming has no future in India and our efforts need to shift to other issues.
- d. Only a few states of India are seriously working for a shift from conventional to organic farming.

II.B) Answer the following questions:

v. Which states of India have been involved in the chemical-free farming in the blueprint as laid out by the Union Finance Minister. Give evidence from the passage.

vi. Mention the objectives of the Agriculture Ministry behind setting up achievable targets?

vii. Highlight one reason why farmers of Punjab put all their efforts into volumes of growing crops.

viii. Draw a conclusion on the basis of the prices of Samai Rice grown conventionally and organically from the given bar chart.

III. Read the following passage carefully:

1. Artificial intelligence (AI) has become commonplace. When it comes to medicine, AI helps surgeons to streamline tasks, improve operational efficiencies and simplify complex procedures.

2. Despite its potential to unlock new insights, AI may bring considerable threats of privacy, ethical concerns, and medical errors. The need is of a human-artificial intelligence interface, the knowledge-handler and the empathetic communicator.

3. Although AI has come a long way in the medical world, human surveillance is still essential. For example, surgery robots operate logically, as opposed to empathetically. Surgeons may notice vital behavioural observations that can help diagnose or prevent medical complications. AI can identify potential ailments faster than human doctors, but when it comes to decision-making, AI cannot yet fully and safely surpass human physicians. AI cannot adapt to the variety of situations arising during a difficult surgery as it has a pre-fixed analytic, but a surgeon can not only adapt to the situation, but find new ways on the operating table to save a person's life.

4. Despite the fact that robots are in many ways seen as more accurate and reliable than human surgeons, people are inevitably worried about putting their lives in the hands of a machine. Fears surrounding the safety and accuracy of procedures are prevalent among members of the public, however it is highly likely that the widespread use of medical robotics is set to continue.

5. AI is a new tool and can perform more complicated tasks and detect minor errors which can be missed by humans, but there are costs and risks if it is utilized incorrectly. There is always some scope for human error or mechanical failure with these advanced robots. A single mechanical malfunction can cost human lives.

(Source- India Today- Empathy, Key to Quick Healing)

III.A On the basis of your reading of the above passage, make notes using headings and subheadings. Use recognisable abbreviations wherever necessary. Suggest a suitable title for the passage. (5)

III.B Write a summary of the above passage in not more than 50 words using the notes made by you. (3)

SECTION – B (GRAMMAR & CREATIVE WRITING SKILLS) (23 Marks)

Typology	Grammar & Creative Writing	Conceptual understanding, application of rules, analysis,
	Skills	reasoning, appropriacy of style and tone, using
		appropriate format and fluency, inference, evaluation
		and creativity

(8)

IV. GRAMMAR

(i) Fill in the blanks using the correct form of the words given in the brackets. Attempt any four.

(1X4=4 marks) With India set to a)_____ (take over/take on/undertake/take up) the presidency of the G20 at the end of this year, the platform of the world's 20 largest economies b)_____ (though/although/that/through) riven by Russia's war in Ukraine c)_____ (can/shall/should/could) still play a key role in d)_____ (finding/finds/found/founded) solutions, as demonstrated during the initial stages of the Covid-19 pandemic. India's commitment to stand e)_____ (with/by/on/in) developing nations on issues such as debt, food, energy, security and climate action during its G20 presidency is a welcome assertion.

(ii) Transform the following sentences as per the instructions given below: (1X3=3 marks)

a) Opening the door, he asked for my permission to come in. (Change into a complex sentence)

b) "Will you be home soon?" She asked her husband. (Change into reported speech)

c) We are going to watch a movie tonight. (Change the voice)

V. CREATIVE WRITING SKILLS

(i). You are shifting with family from Delhi to Mumbai due a change in your job and looking for an accommodation on rent near Juhu Beach. Draft an advertisement in 50 words for the classified column 'Accommodation Wanted'. Invent necessary details.

OR

A multinational company requires a suitable candidate for the post of Store Supervisor for their newly opened showroom at Gurugram. Draft a suitable advertisement in 50 words for the classified column 'Situation Vacant' giving details of the requirements. 3

(ii). You are Shalin/ Shalini working with an NGO 'Animal Protection'. Encouraged by the steps taken by the Indian government in bringing Cheetahs to India, your organization deputes you to draft a poster in 50 words to be published in newspapers celebrating the arrival of cheetahs which was declared as extinct from India in 1952. Also include a message sensitizing people against exploiting and destroying the beautiful grasslands, the natural habitat of cheetahs.

OR

On the occasion of your school's Golden Jubilee Celebration, you are organizing a Musical Concert by a renowned artiste. Mr. Raj Kumar Rao, an eminent film personality has consented to grace the occasion as the Guest of Honour. Design a poster in 50 words for the same with necessary details. **3**

(iii). Women play a crucial and integral role in the development and prosperity of the society. The government has provided a conducive atmosphere to make them self-reliant while ensuring their safety, self-respect and dignity. Write a speech in 120-150 words to be delivered in the morning assembly taking hints from the table given below.

Establishments setup in U.P. alone	
Mission Shakti Cells	
Women helpdesk in all 1584 police stations	
Additional women police stations/ women outposts	
Beti Bachao- Beti Padhao Yojana	
• 2.61 cr. toilets constructed under Swachh Bharat Mission	

(iv). You are Asim/ Asima of class XI participating in a debate competition. Write a debate either for or against the motion: 'Indian festivals are all about gifts, food, shopping and enjoyment.' (Word limit 120-150 words) 5

OR

In sports, aggression is a characteristic that can have many negative as well as positive effects on performance. Taking clues from the inputs given below write a debate on the topic- 'Aggression is a Vital Part of Sports'. You are Asim/Asima of class XI. (Word limit 120- 150 words) 5

Aggression mostly viewed as- negative psychological characteristic/sports psychologists opineaggression improves performance-termed as assertive behaviour/player plays- within rules of the sporting domain- at high intensity/no intention to harm an opponent/aggression-defined into two categories: hostile aggression and instrumental aggression/ hostile aggression- aim-to cause harm or injury to opponent/Instrumental aggression- aim-to achieve a goal by using aggression

SECTION – C (LITERATURE)

(31 Marks)

Typology	Literature	Recalling, reasoning, appreciating literary conventions, inference, analysis, creativity with fluency and critical
		thinking

VI. Reference to the Context

(i) Read the given extract carefully and answer the questions that follow:	(3x1=3 marks)
Now she's been dead nearly as many years As that girl lived. And of this circumstance There is nothing to say at all. Its silence silences.	
i. Identify the phrase from the extract that conveys the following:	1
It has been twelve years since the death of the poet's mother.	
 ii. The tone of the poet in the above extract is- a. pessimistic b. optimistic c. aggressive d. sentimental 	1
iii. Which figure of speech has been used in the last line of the extract-	1
OR	
When did my childhood go? Was it the time I realised that adults were not all they seemed to be, They talked of love and preached of love, But did not act so lovingly, Was that the day!	
i. The trait of adults highlighted in the extract is	1

ii. Which lines justify the following idiom-

'Actions speak louder than words.'

iii. Choose the poetic device used in the first line of the extract.

a. Repetition

- b. Transferred epithet
- c. Personification
- d. Refrain

(ii) Read the given extract carefully and answer the questions that follow: (3x1=3 marks)

When I went in to comfort the children, Jon asked, "Daddy, are we going to die?" I tried to assure him that we could make it. "But, Daddy," he went on, "we aren't afraid of dying if we can all be together — you and Mummy, Sue and I."

I could find no words with which to respond, but I left the children's cabin determined to fight the sea with everything I had. To protect the weakened starboard side, I decided to heave-to - with the undamaged port hull facing the oncoming waves, using an improvised sea anchor of heavy nylon rope and two 22 litre plastic barrels of paraffin.

i. An apt title of the above extract could be-

1

- a. Power of Words
- b. Child is the Father of Man
- c. Struggle for Survival
- d. Struggle at Sea

ii. Which group of words from the following options aptly describes the relationship between the father and the son-

- a. Unquestionable, friendly, hesitant
- b. Trusting, strong bonding, unconditional love
- c. Doubtful, feeble bonding, conditional love
- d. Faithful, affable, unpleasant

iii. Choose the word which means the same as 'improvised'.

- a. prepared
- b. planned
- c. rehearsed
- d. devised

OR

A FLAWLESS half-moon floated in a perfect blue sky on the morning we said our goodbyes. Extended banks of cloud like long French loaves glowed pink as the sun emerged to splash the distant mountain tops with a rose-tinted blush. Now that we were leaving Ravu, Lhamo said she wanted to give me a farewell present. One evening I'd told her through Daniel that I was heading towards Mount Kailash to complete the kora, and she'd said that I ought to get some warmer clothes. After ducking back into her tent, she emerged carrying one of the long-sleeved sheepskin coats that all the men wore.

i. Identify the figure of speech in "Extended banks of cloud like long French loaves".

a. personification

b. hyperbole

1

c. metaphor

d. simile

ii. Lhamo's farewell present to Nick Middleton highlights her-

- a. simplicity
- b. friendliness
- c. concern
- d. greed

iii. Choose the option that displays the correct usage of the word 'ducking' in the above extract.

a. This ducking was the very thing he needed.

- b. He walked around to the driver's side, ducking his head as he folded his tall frame into the car.
- c. The slower class of meteors ducking the earth have a velocity of about 8 to 10m.

d. The movement of traffic was made impossible due to the ducking of tracks.

(iii) Read the given extract carefully and answer the questions that follow: (4x1=4 marks)

I stopped, horrified. I was in a room I knew and did not know. I found myself in the midst of things I did want to see again but which oppressed me in the strange atmosphere. Or because of the tasteless way everything was arranged, because of the ugly furniture or the muggy smell that hung there, I don't know; but I scarcely dared to look around me. The girl moved a chair. I sat down and stared at the woollen table-cloth. I rubbed it. My fingers grew warm from rubbing. I followed the lines of the pattern. Somewhere on the edge there should be a burn mark that had never been repaired.

i) Which room is the narrator referring to in the given context?	1
a) dining room	
b) living room	
c) lobby	
d) attic	
ii) Identify the literary device in the given statement- "I was in a room I knew and did not know."	1
a) Repetition	

- b) Contrast
- c) Oxymoron
- d) Paradox

iii) Ascertain the reason that doesn't correspond to the narrator feeling horrified-

- a) oppressed by the strange atmosphere
- b) plagued by the tasteless way everything was arranged
- c) upset by Mrs. Dorling's reluctance to acknowledge her
- d) dismayed by the ugly furniture or the muggy smell

iv) Select the option which means the same a	s 'hardly/barely'?	1
--	--------------------	---

a) oppressed b) scarcely c) muggy d)midst

1

1

It suddenly dawned on me that he had been taking these early morning rides for some time and had come for me this morning only because he knew how much I longed to ride. Who said anything about stealing a horse? he said. Anyhow, I said, how long ago did you begin riding every morning? Not until this morning, he said. Are you telling the truth? I said. Of course not, he said, but if we are found out, that's what you're to say. I don't want both of us to be liars. All you know is that we started riding this morning.	
i) Aram's conclusion about Mourad taking early morning rides was based on-	1
 a) Mourad's love for the horse b) Mourad not willing to be caught with the horse c) Mourad skillfully riding the horse d) Mourad inviting Aram for a ride 	
ii) Highlight one trait of Mourad from his statement "I don't want both of us to be liars."	1
 a) conspiring b) scrupulous c) honesty d) manipulative 	
iii) What made Mourad visit Aram with a horse?	1
a) because he had been taking early morning rides himselfb) because he wanted companyc) because he didn't want to be found out aloned) because he knew Aram's longing to ride a horse	
iv) Statement-A: Mourad had become adept at riding the horse.Statement-R: Mourad had stolen the horse that day only and had come to Aram to offer him a ride.	1
 e) Both A and R are true and R is the correct explanation of A. f) Both A and R are true but R is NOT the correct explanation of A. g) Both A and R are false. h) A is false but R is true. 	
VII. Answer the following questions in about 40-50 words each: (3X2=6 marks)	
a) A fairly universal issue of friction between a father and son is exclusively personal also. Do you agree or disagree with the statement? Explain with reference to 'Father to Son'. OR	
Draw a parallel between a goldfinch and a lizard as depicted by Ted Hughes.	
b) Give evidence of the fact that Tut's burial took place in the month of March or April.	

OR

'To her music had lewd associations'. Comment on the statement in the light of the story 'The Portrait of a Lady'.

VIII. Answer the following question in about 40-50 words:

(3x1=3 marks)

"Love for an animal or bird is pure because in that love you don't expect anything in return." a) Substantiate with reference to 'The Summer of the Beautiful White Horse."

OR

An unwarranted enthusiasm for rules and regulations may lead to chaos and anarchy. Explain in b) the wake of the theme of the poem 'The Tale of Melon City'.

IX. Answer the following question in about 120-150 words:

An adventure is an unusual, exciting and daring experience. Compare and contrast the element of a) adventure in the chapters 'The Adventure' and 'Silk Road'.

OR

Nature plays an important part in human life. To keep it alive, man needs to respect the necessity b) of rain on earth. Reinforce this idea as reflected in the poem 'The Voice of the Rain'.

X. Answer the following question in about 120-150 words: (1x6=6 marks)

a) "I have done something; oh, God! I've done something real at last". Justify Andrew's comment with reference to the title of the story. (Birth)

OR

b) 'All's well that ends well' effectively summarizes the essence of the play 'Mother's Day'. Elucidate.

(1x6=6 marks)

ENGLISH CORE Marking Scheme and Hints to Solutions

Note:

- 1. The marking scheme provides suggested value points and not the complete answers.
- 2. Any other relevant answer not given herein but given by the candidate be also suitably rewarded.

Q.No.	Value Points/Key	Marks allotted to each value point/Key point	Total Marks
	SECTION-A (READING SKILLS) (26 MARKS)	point	
I.	 A. i) b. assigning power and resources to villages ii) d. All the above iii) c. Flagbearers of Participative Democracy iv) c. A is true but R is false. v) d. hindrance B. vi) Envisioned Panchayats as a small self-sufficient republic that entails total participation of the people and equal opportunities for all. vii) More than 14.5 lakh women are in leadership roles/50% seats reserved in PRIs. viii) Rapid expansion of the economy and growing awareness for proclamation of rights by the people ix) PRIs hold the main key to improve the quality of life in rural areas. x) populace 	1 1 1 1 1 1 1 1 1 1	5
Ш.	 A. i. c. Rajasthan, MP, Maharashtra ii. b. false iii. b. sugarcane, jaggery, coffee iv. a. The basic problem for an ordinary farmer remains- Organic farming is expensive. B. v. Chemical-free farming on both sides of the Ganga in five states-Uttarakhand, Uttar Pradesh, Bihar, Jharkhand and West Bengal vi. promoting chemical-free agriculture in tribal, hilly and agroforestry areas. vii. guaranteed procurement safety net viii. Price is double in comparison to conventional farming/price is much higher than conventional farming/difference in the price is Rs. 	1 1 1 1 1 1 1 1 1	4
III.	 83 per kg. (Any one) (A) Note Making Title- Artificial Intelligence (Any other suitable title) Numbering and indenting Key/glossary Notes/Content 1. Importance of AI 1.1 streamline tasks 1.2 improve <u>operal.</u> efficiencies 1.3 simplify complex procedures 2. Need of hour 	1 1 1 2	5

	2.1 human AI interface		
	2.2 knowledge handler		
	2.5 empathetic <u>commun.</u>		
	3.1 diagnose medical complication/can't take decision		
	3.2 can find new ways/can't adapt to different situan		
	A Euture of ΔI		
	4.1 accurate and reliable		
	4.7 can perform complicated tasks		
	4.3 detect minor errors-missed by humans		
	5 Disadvantages of AI		
	5.1 mechanical failure		
	5.2 can cost human life		
	5.3 threats of privacy ethic concerns		
	els uneus el privacy, <u>eun</u> concerns		
	Key to Abbreviations:		
	1. operational – operal.		
	2. situations – situan.		
	3. communicator – commun.		
	4. ethical-ethi.		
	(B) Summary:		
	The summary should include all the important points given in the	2	2
	notes.	2	3
	Content	1	
	Expression		
	SECTION – B (GRAMMAR & CREATIVE WRITING SKILLS)		
	(23 Marks)		
		1	
IV.	1) a. take over	1	
	b. though	1	
	c. could	l	4
	d. finding	1	
	e. by		
	(Attempt any four)	1	
	ii) a While opening the gate he asked for my permission to some in/	1	
	As he opened the door, he asked for my permission to come in/		
	After opening the door, he asked for my permission to come in	1	3
	b. She asked her husband if he would be home soon	1	5
	c. A movie is going to be watched by us tonight.	1	
V.	i) Advertisement (Classified)		
		1	
	Format:	-	3
	The format should include: Box, Heading, Contact details	1	
	Content	1	
	Expression		
	Value Points:		
	Heading - ACCOMMODATION WANTED		
	- required house on rent		
	- specifications- location, facilities, features		

- approximate rent		
- contact details – name telephone no		
- Any other relevant details		
UK	1	
Format:	1	
The format should include: Box, Heading, Contact details		
Content	1	
Expression	1	
Value Points		
Heading SITUATION VACANT		
required suitable condidete		
- required suitable candidate		
- for post of Store Supervisor		
 for newly opened showroom at Gurugram 		
- criteria- age, gender, qualification, experience		
- salary package		
- other requirements (if any)		
contact details name telenhone no address		
- contact details – name, telephone no., address		
- Any other relevant details		
ii) Poster		
Format:	1	3
The format should include: Box Heading/s details of issuing authority		
Content	1	
Eventent	1	
	1	
value points:		
- relevant slogans to celebrate arrival of cheetah		
- Do's and don'ts to discourage exploitation and destruction		
of beautiful grasslands, natural habitat of cheetahs.		
- Suggested steps/message for public		
- Illustration		
Icquing outhority		
- issuing autority		
- Any other relevant details		
OR		
Format:	1	
The format should include: Box, Heading/s, details of issuing authority		
Content	1	
Expression	1	
Value points:	1	
raiuc points.		
- relevant slogans for school's Golden Jubilee Celebration		
- organizing a Musical Concert by renowned artiste		
- an eminent film personality to grace as Guest of Honour		
- details of event including date, time, venue		
- Illustration		
- Issuing authority		
- Any other relevant details		
iii) Speech		
Format-salutation introduction of self and tonic	1	5
Content	2	5
Expression	$\frac{2}{2}$	
	Z	
- Grammatical accuracy, appropriate words, spellings		

- Coherence and relevance of ideas and style.		
 Value points empowering women crucial and integral role in development and prosperity of the society suppressed since centuries but now-change in societal attitude government efforts- providing conducive atmosphere, making self-reliant, ensuring safety, self-respect, dignity. govt. efforts not enough, society needs to change mindset women need to assert their dignity details of establishments setup necessary steps to be taken- education, awareness of rights/laws, reservation for women in institutions/jobs Any other relevant points 		
iv) Debate		
 Format- salutation, specification whether in favour or against, introduction of self and topic Content Expression Grammatical accuracy, appropriate words, spellings Coherence and relevance of ideas and style. 	1 2 2	5
 FOR mindset – materialistic/practical gifts shared with relatives/friends/needy/charitable organizations boost country's GDP/economy generate employment imbibe values of sharing and caring promote culture/unity/brotherhood/reason for togetherness break monotony of routine Any other relevant points 		
 AGAINST primary focus- gifts/food/shopping/extravagance-mere tools to attain short term happiness sole objective- display of affluence/financial status lack of genuine bonding/emotions/concern need to learn- real essence of values/festive spirit Any other relevant points 		
OR		
Format- salutation, specification whether in favour or against, introduction of self and topic Content Expression - Grammatical accuracy, appropriate words, spellings	1 2 2	

	- Coherence and relevance of ideas and style.		
	Value points		
	 FOR healthy aggression improves performance of team/individual generates crowd enthusiasm results in high intensity game ensuring adherence of rules and safety of players promotes healthy competition Any other relevant points 		
	AGAINST unhealthy/hostile aggression sole objective- to achieve goal/victory results in loss of sportsman spirit leads to distraction/penalties/suspensions causes harm/injury to opponent/self may lead to legal consequences/poor performance may trigger mental health issues focus should be on building stamina/finesse in technique/mental strength Any other relevant points SECTION C (LITERATURE) (31 Marks)		
VI.	Reference to the Context		
	 (i) i. Now she's been dead nearly as many years as that girl lived. ii. (d) sentimental iii. Repetition/Alliteration OR i. Hypocrisy ii. They talked of love and preached of love, But did not act so lovingly. iii. (d) Refrain 	1 1 1 1 1	3
	(ii)i. (a) Power of wordsii. (b) Trusting, strong bonding, unconditional loveiii. (d) devised	1 1 1	3
	OR		
	 i. (d) Simile ii. (c) Concern iii. (b) He walked around to the driver's side ducking his head as he folded his tall frame into the car. 	1 1 1	
	 i. (b) living room ii. (d) Paradox iii.(c) upset with Mrs. Dorling's reluctance to acknowledge her. iv. (b) scarcely 	1 1 1 1	4

	OR		
	 i. (c) Mourad skillfully riding the horse ii. (d) manipulative iii. (d) because he knew Aram's longing to ride a horse. iv. (b) Both A and R are true but R is not the correct explanation of A. 	1 1 1 1	
VII.	 a) universal issue-agree/disagree generation gap estrangement of relationships changing values and lifestyles clash of personalities every father and son cherish unique and exclusive relationship (Any two) 	Content-2 Expression- 1	3x2=6 3
	OR		
	 a simile sleek, alert/cautious, abrupt smooth and fluid (Any two) 	Content-2 Expression- 1	3
	 b) Tut's shroud adorned with- garlands of willow and olive leaves, wild celery, lotus petals and cornflowers faded evidence of burial in March or April (Any two) 	Content-2 Expression- 1	3
	 lewd-indecent in grandmother's opinion music is monopoly of beggars and harlots/ not meant for gentlefolk said nothing-silence meant disapproval (Any two) 	Content-2 Expression- 1	3
VIII.	 a) all species have a right to co-exist animals and birds-never attack unprovoked Mourad loved animals and birds stole the horse but no malicious purpose the horse named- 'My Heart!' the horse became stronger and better tempered repaired the wing of young robin enabling it to fly Aram also fond of horses (Any two) 	Content-2 Expression- 1	3
	 b) Vikram Seth lampoons the idiosyncratic and idiotic governance bureaucracy and professionals keep passing the buck in the name of rules 	Content-2 Expression- 1	3

	 lackadaisical attitude of the common people thoughtless and blind implementation of laws may spell disaster short sightedness and foolishness of the ruling class and bureaucracy king's false notion of being 'just' and 'placid' king- fanatic about dispensing justice lost his cool for trivial reason king ordering hangings to pacify his subjects lost his crown as well as his life (Any two) 		
IX.	 a) Both the stories contain action, complex plot and thrilling adventure. The Adventure-science fiction Jayant Narlikar-a historian, travels back into time and has a wishful view of Indian history Jayant Narlikar's physicist friend provides scientific explanation-his experience on the basis of Catastrophe theory and lack of Determinism in Quantum theory. Silk Road-a travelogue Nick Middleton- an academician- performs the Kailash Kora to satiate his curiosity. physically performs the Kora breathtaking beauty and picturesque phrases (Any three- at least one from each) 	Content-3 Expression- 3	6
	OR b) -Rain-universal in appeal and eternal -referred to as -'Poem of Earth' -originates from the womb of the earth -stimulates seeds to life -gives back life to its 'own origin' -cyclic movement -by drenching the earth-prepares the ground for another cycle of life for itself -enhances its beauty and purity over and over again -exudes a sense of joy and satisfaction -has the power to soothe, heal, rejuvenate, transform and thrill (Any three)	Content-3 Expression- 3	6
Х.	 a) -Dr. Andrew's relentless efforts, dogged determination, infallible will, 'never say die' attitude and humane approach succeed -miraculous revival of stillborn child-mammoth achievement -retrieved and restored two lives -contentment, satisfaction, a sense of achievement and fulfilment -great relief and exquisite joy to Morgan family -established himself as a medical practitioner/enhancement of his professional reputation (Any three) OR b) In the beginning-Mrs. Pearson-self effacing, loving, submissive, 	Content-3 Expression- 3	6

1			-
	nervous, fluttering, taken for a ride by family members	Content-3	6
	-Mrs. Fitzgerald as Mrs. Pearson-authoritative, commanding, bold,	Expression- 3	
	humiliated the family members		
	-at the end-family realized that they were rude, selfish, callous,		
	ungrateful and self-centered		
	-finally the family became humane and kind hearted		
	-Mrs. Pearson-being respected, due attention paid to her desires, family		
	members spent time with her		
	(Any three)		
	()		



हिंदी (केंद्रिक) कक्षा-ग्यारहवीं

समय : 3 घंटे

अधिकतम अंक : 80

I. अधिगम उद्देश्य का प्रभार :

उद्देश्य	ज्ञानात्मक	बोधात्मक	अनुप्रयोग	कुल अंक
% (अंकों का)	15%	50%	35%	100
अंक	12	40	28	80

II. विभिन्न प्रकार के प्रश्नों का प्रभार :

प्रश्नों के प्रकार	निबंधात्मक विस्तृत लघूत्तरात्मक प्रश्न प्रश्न प्रश्न		बहुविकल्पी प्रश्न	कुल	
	(5 अंक)	(3 अंक)	(2 अंक)	(1 अंक)	
प्रश्न संख्या	2	9	9	45	65*
अंक	10	18	12	40	80

नोट - *मुख्य प्रश्न संख्या के साथ उपभागों के प्रश्नों (*) को भी शामिल किया गया है।

III. विभिन्न प्रश्नानुसार अनुमानित शब्द सीमा और समय प्रबंधन

	प्रश्नों के प्रकार	अनुमानित शब्द-सीमा	अनुमानित समय
1.	निबंधात्मक प्रश्न	100-120	20 मिनट
2.	विस्तृत प्रश्न	50-60	70 मिनट
3.	लघुत्तरात्मक प्रश्न	30-40	50 मिनट
4.	बहुविकल्पी प्रश्न	उचित विकल्प का चयन	40 मिनट

IV. वैकल्पिक प्रश्नों की संख्या: 2, 7, 8, 9, 10, 11, 12, 13, 14

V. खंड : अ और ब

VI. कठिनाई स्तर अनुसार प्रश्नों के प्रकार

1.	कठिन प्रश्न	:	20%
2.	सामान्य प्रश्न	:	60%
3.	सरल प्रश्न	:	20%

प्रतिदर्श प्रश्न-पत्र (2022-23) कक्षा-ग्यारहवीं विषय-हिंदी (केंद्रिक) (302)

समय : 3 घंटे

अधिकतम अंक : 80

सामान्य और आवश्यक निर्देश :

- * इस प्रश्न-पत्र में दो खंड हैं—खंड 'अ' और खंड 'ब'। कुल प्रश्न 14 हैं।
- * खंड 'अ' में 45 वस्तुपरक प्रश्न पूछे गए हैं, जिनमें से केवल 40 प्रश्नों के उत्तर देने हैं।
- * खंड 'ब' में वर्णनात्मक प्रश्न पूछे गए हैं प्रश्नों के आंतरिक विकल्प दिए गए हैं।
- * प्रश्नों के उत्तर दिए गए निर्देशों का पालन करते हुए दीजिए।
- * दोनों खंडों के प्रश्नों के उत्तर देना अनिवार्य है।
- * यथासंभव दोनों खंडों के उत्तर क्रमश: लिखिए।

खंड-अ (वस्तुपरक प्रश्न)

अपठित गद्यांश

 निम्नलिखित गद्यांश को ध्यानपूर्वक पढ़कर सर्वाधिक उपयुक्त उत्तर वाले विकल्प को चुनकर लिखिए– (1×10=10)

परियोजना शिक्षा का एक बहुत ही महत्त्वपूर्ण अंग है। इसे तैयार करने में किसी खेल की तरह ही आनंद मिलता है। इस तरह की परियोजना तैयार करने का अर्थ है–खेल-खेल में बहुत कुछ सीख जाना। यदि आपको कहा जाए कि दशहरा पर निबंध लिखिए, तो आपको उतना आनंद नहीं आएगा क्योंकि प्रत्येक व्यक्ति की विषयगत अभिरुचि भिन्न होती है, जैसे आपको अपनी रुचि के अनुसार परियोजना कार्य के संबंध में तथ्य एकत्रित करने हों तो अखबारों से प्राप्त जानकारियों के अलावा भी आपको देश-दुनिया की बहुत सारी जानकारियाँ प्राप्त होती हैं। यह आपको तथ्यों को जुटाने तथा उन पर विचार करने का अवसर प्रदान करती है। इससे आप में नए–नए तथ्यों के कौशल का विकास होता है। इससे आप में एकाग्रता का विकास होता है। लेखन संबंधी नई–नई शैलियों का विकास होता है।

आप में चिंतन करने तथा किसी पूर्व घटना से वर्तमान घटना को जोड़कर देखने की शक्ति का विकास होता है। परियोजना कई प्रकार से तैयार की जा सकती है। हर व्यक्ति इसे अलग ढंग से. अपने तरीके से तैयार कर सकता है। ठीक उसी प्रकार जैसे हर व्यक्ति का बातचीत करने का, रहने का, खाने-पीने का अपना अलग तरीका होता है। ऐसा निबंध, कहानी, कविता लिखने या चित्र बनाते समय भी होता है। लेकिन ऊपर कही गई बातों के आधार पर यहाँ हम परियोजना को मोटे तौर पर दो भागों में बाँट सकते हैं–एक तो वे परियोजनाएँ, जो समस्याओं के निदान के लिए तैयार की जाती हैं और दूसरी वे, जो किसी विषय की समुचित जानकारी प्रदान करने के लिए तैयार की जाती हैं। समस्याओं के निदान के लिए तैयार की जाने वाली परियोजनाओं में संबंधित समस्या से जुड़े सभी तथ्यों पर प्रकाश डाला जाता है और उस समस्या के निदान भी दिए जाते हैं इस तरह की परियोजनाएँ प्राय: सरकार अथवा संगठनों द्वारा किसी समस्या पर कार्य-योजना तैयार करते समय बनाई जाती हैं। इससे उस समस्या के विभिन्न पहलुओं पर कार्य करने में आसानी हो जाती है, किंतु दूसरे प्रकार की परियोजना को आप आसानी से तैयार कर सकते हैं। इसे 'शैक्षिक परियोजना' भी कहा जाता है। इस तरह की परियोजनाएँ तैयार करते समय आप संबंधित विषय पर तथ्यों को जुटाते हुए बहुत सारी नई-नई बातों से अपने-आप परिचित भी होते हैं।

- (i) परियोजना को शिक्षा का महत्त्वपूर्ण अंग क्यों माना गया है?
 - (क) खेल-खेल में ज्ञानार्जन
 - (ख) बौद्धिक विकास होना
 - (ग) एकाग्रता एवं रचनात्मकता का विकास
 - (घ) अध्ययन एवं मनोरंजन का समन्वय
- (ii) किस कार्य में व्यक्ति-विशेष को आनंद प्राप्त होता है?
 - (क) लेख लिखने में (ख) निबंध लेखन में
 - (ग) रचनात्मक कार्य करने में (घ) रुचि के अनुसार कार्य करने में

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- (iii) गद्यांश के अनुसार बच्चों में नए-नए तथ्यों के कौशल-विकास का कारण है–
 - (क) मित्रों के साथ बैठकर बातें करना
 - (ख) तथ्यों को जुटाकर उन पर विचार करना
 - (ग) तर्क-वितर्क करना
 - (घ) विभिन्न प्रकार के खेल खेलना
- (iv) परियोजना तैयार करने की क्या शैली हो सकती है?
 - (क) अलग ढंग, अपने तरीके से तैयार करना
 - (ख) सबके साथ मिलकर तैयार करना
 - (ग) बातचीत करके तैयार करना
 - (घ) किसी की सलाह से तैयार करना
- (v) निबंध, कहानी, कविता लिखते या चित्र बनाते समय कैसा अनुभव होता है?
 - (क) सबका एक जैसा ही होता है
 - (ख) प्रत्येक का अनुभव अलग-अलग होता है
 - (ग) एक-दूसरे की नकल कर बना लेते हैं
 - (घ) कुछ लोगों का समान और कुछ का असमान
- (vi) परियोजना को किन दो भागों में बाँटा जा सकता है?
 - (क) समस्याओं को छोड़ देने के लिए और नई जानकारी प्राप्त करने के लिए
 - (ख) समस्याओं के निदान के लिए और समुचित जानकारी प्रदान करने के लिए
 - (ग) समस्याओं को समझकर विशेष जानकारी प्राप्त करने के लिए
 - (घ) समस्याओं को न समझना और उनका निदान खोजने का प्रयास करना
- (vii) सरकार अथवा संगठनों द्वारा किसी समस्या पर तैयार होने वाली कार्य योजना है–
 - (क) समस्याओं के निदान के लिए
 - (ख) समुचित जानकारी प्रदान करने के लिए
 - (ग) विभिन्न पहलुओं पर कार्य करने के लिए
 - (घ) विकास के लिए

(viii) गद्यांश के अनुसार कौन-सी परियोजना सहजता से तैयार की जा सकती है?

- (क) शैक्षिक परियोजना (ख) गैर-शैक्षिक परियोजना
- (ग) बहुउद्देशीय परियोजना (घ) सामाजिक सुरक्षा परियोजना
- (ix) परियोजना तैयार करने हेतु तथ्यों को जुटाने का सर्वश्रेष्ठ विकल्प है-
 - (क) खोज (ख) आविष्कार
 - (ग) शोध (घ) परिश्रम
- (x) निम्नलिखित कथन कारण को ध्यानपूर्वक पढ़िए, उसके बाद दिए गए विकल्पों में से कोई एक सही विकल्प चुनकर लिखिए–
 कथन (A): 'यदि आपको कहा जाए कि दशहरा पर निबंध लिखिए तो आपको शायद उतना आनंद नहीं आएगा।'
 कारण (R): प्रत्येक व्यक्ति की लेखन क्षेत्र में विषयगत रुचि भिन्न-भिन्न होती है।
 (क) कथन (A) तथा कारण (R) दोनों सही हैं तथा कारण कथन की सही व्याख्या करता है।
 (ख) कथन (A) गलत है लेकिन कारण (R) सही है।
 - (ग) कथन (A) तथा कारण (R) दोनों गलत हैं।
 - (घ) कथन (A) सही है लेकिन कारण (R) उसकी गलत व्याख्या करता है।
- निम्नलिखित पद्यांशों में से किसी एक पद्यांश से संबंधित प्रश्नों के उत्तर सही विकल्प-चयन द्वारा दीजिए– (1×5)

मन दीपक निष्कम्प जलो रे! सागर की उत्ताल तरंगे, आसमान को छू छू जाएँ डोल उठे डगमग भूमंडल अग्निमुखी ज्वाला बरसाए

धूमकेतु बिजली की द्युति से, धरती का अंतर हिल जाए फिर भी तुम जहरीले फन को कालजयी बन उसे दलो रे! कदम-कदम पर पत्थर, काँटे पैरों को छलनी कर जाएँ श्रांत-क्लांत करने को आतुर क्षण क्षण में जग की बाधाएँ मरण गीत गाकर आ जाए दिवस-रात, आपद-विपदाएँ फिर भी तुम हिमपात तपन में बिन आह चुपचाप जलो रे। मन की तुलना किससे की गई है?

- (क) दीपक से(ख) हवा से(ग) रात से(घ) पर्वत से
- (ii) कविता में क्या करने को कहा गया है?
 - (क) विपरीत परिस्थितियों में विजय पाने को
 - (ख) देश के लिए लड़ने को

(i)

- (ग) सर्वस्व समर्पण करने को
- (घ) खूब अध्ययन करने को
- (iii) कालजयी बनकर कवि ने कैसी बाधाओं का दलन करने को कहा है?
 - (क) श्रांत-क्लांत परिस्थितियों का (ख) अहंकार का
 - (ग) प्रतिकूल परिस्थितियों का (घ) प्रबल कामनाओं का

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- (iv) 'पत्थर और काँटे' प्रतीक हैं-
 - (क) प्रगति के
 (ख) बाधाओं के
 (ग) मजबूती के
 (घ) जड़ता के
- (v) ''फिर भी तुम हिमपात तपन में बिना आह चुपचाप जलो रे।'' का भाव है–
 (क) सुविधा भोगी बनने का
 (ख) परिस्थितियों से समझौता करने का
 (ग) शांत रहने का
 (घ) संघर्ष के साथ अग्रसर होने का

अथवा

एक दिन भी जी मगर तू ताज बन कर जी (1×5) अटल विश्वास बनकर जी. अमर युग-गान बनकर जी! आज तक तू समय के पद-चिन्ह सा खुद को मिटाकर कर रहा निर्माण जग-हित एक सुखमय स्वर्ग सुंदर स्वार्थी दुनिया मगर बदला तुझे यह दे रही है-भूलता युग-गीत तुझको ही सदा तुझसे निकलकर 'कल' न बन तू जिंदगी का 'आज' बनकर जी जगत सरताज बनकर जी! जन्म से उड़ रहा निस्सीम इस नीले गगन पर, किंतु फिर भी छांह मंजिल की पड़ती नहीं नयन पर, और जीवन लक्ष्य पर पहुँचे बिना जो मिट गया तू– जग हँसेगा खूब तेरे इस करूण असफल मरण पर ओ मनुज! मत विहग बन आकाश बनकर जी, अटल विश्वास बनकर जी।

कवि ने मनुष्य को किस प्रकार जीने की प्रेरणा दी है? (i) (क) सर्वश्रेष्ठ एवं सरताज बनकर परिश्रमी एवं सारयुक्त बनकर (ख) (ग) निस्वार्थी और संघर्षरत जीवन श्रेष्ठ और विश्वसनीय जीवन (घ) दुनिया को स्वार्थी क्यों कहा गया है? (ii) (क) वह स्वयं के लिए जीती है (ख) वह जग-हित से अपना स्वार्थ साधती है (ग) वह निज उन्नति में विश्वास रखती है (घ) वह दूसरों की क्षति में प्रसन्न रहती है 'मत विहग बन आकाश बनकर जी' में 'विहग' शब्द का अर्थ है– (iii) (क) कायर (ख) प्रखर (ग) खर (घ) खग निम्नलिखित कथनों पर विचार कीजिए-(iv)क्षणिक खणों में श्रेष्ठ बनकर जीना (i) लक्ष्यरहित कार्य सफल नहीं होते (ii) (iii) मनुष्य को पक्षी के समान आकाश में विचरण करना चाहिए उपरिलिखित कथनों में कौन-सा/कौन से सही है/हैं? (क) केवल (i) (ख) केवल (iii) (ग) (i) और (ii) (ii) और (iii) (घ) कविता में किस जीवन मूल को प्रतिपादित किया गया है? (\mathbf{v}) अहिंसा (क) (ख) दया (ग) निःस्वार्थ भाव (घ) न्याय

3. निम्नलिखित प्रश्नों के उत्तर देने के लिए उपयुक्त विकल्प का चयन कीजिए– (1×5=5)

- (i) संचार प्रक्रिया में 'डीकोडिंग' के संबंध में कौन सा कथन सही है?
 - (क) भाषा से परिचित होना (ख) संदेश में निहित अर्थ को समझना
 - (ग) शोर से संचार प्रक्रिया अवरुद्ध होना
 - (घ) संकेतिक संचार

(ii)	जनसंच	गर	माध्यमों	में	से	किस	पर	यह	आरोप	लगता	रहा	है	कि	उन्होंने	समाज	1 में
	हिंसा,	अ	श्लीलता	औ	रर	सामाजि	क	व्यवहा	र को	प्रोत्साहि	इत व	करने	में	महत्त्वपू	र्ण भूर्ा	मेका
	निभाई	है	?													

- (क) दूरदर्शन (ख) रेडियो
- (ग) समाचार-पत्र (घ) सिनेमा
- (iii) किस संचार प्रक्रिया में संचारक और प्राप्तकर्ता एक ही व्यक्ति होता है?
 - (क) अंत:वैयक्तिक (ख) समूह संचार
 - (ग) अंतरवैयक्तिक (घ) जनसंचार
- (iv) कॉलम 'क' का कॉलम 'ख' से उचित मिलान कीजिए-

कॉलम 'क'

खोजपरक पत्रकारिता

(i)

कॉलम 'ख'

- (i) सरकार के कामकाज पर निगाह रखना
- (ii) वॉचडॉग पत्रकारिता(ii) विचारधारा उद्देश्य या मुद्दे पर जनमत तैयार करना
- (iii) एडवोकेसी पत्रकारिता (iii) समाचार के महत्त्व से परिचित करवाना
- (iv) विशेषीकृत पत्रकारिता (iv) गहनता से तथ्यों की छानबीन करना
- (क) (i)-(iv), (ii)-(i), (iii)-(ii), (iv)-(iii)
- (ख) (i)-(iii), (ii)-(ii), (iii)-(i), (iv)-(iv)
- (**ग**) (i)-(iv), (ii)-(iii), (iii)-(ii), (iv)-(i)
- (되) (i)-(ii), (ii)-(i), (iii)-(iv), (iv)-(ii)
- (v) निम्नलिखित में से कौन सा कथन समाचार की परिभाषा में सम्मिलित नहीं किया जा सकता?
 - (क) प्रेरक और उत्तेजित करने वाली प्रत्येक सूचना
 - (ख) किसी घटना की रिपोर्ट
- (ग) जल्दी से लिखा गया इतिहास (घ) ऐतिहासिक घटनाओं का विवरण
 4. निम्नलिखित काव्यांश को ध्यानपूर्वक पढ़कर पूछे गए प्रश्नों के उचित विकल्प चुनिए–
 (1×5)
 - किंतु उनसे यह न कहना, उन्हें देते धीर रहना उन्हें कहना लिख रहा हूँ, उन्हें कहना पढ़ रहा हूँ

10

काम करता हूँ कि कहना, नाम करता हूँ कि कहना चाहते हैं लोग कहना, मत करो कुछ शोक कहना और कहना मस्त हूँ मैं, कातने में व्यस्त हूँ मैं वजन सत्तर सेर मेरा, और भोजन ढेर मेरा

- प्रस्तुत काव्यांश में किसे संबोधित किया गया है और किसे धीरज देने की बात की गई है?
 - (क) माता पिता सावन (ख) सावन माता पिता
 - (ग) साथियों माता पिता (घ) माता पिता साथियों
- (ii) काव्यांश के आधार पर स्पष्ट करें कि परिस्थितिवश कारावास में रहते हुए भी समय का सदुपयोग किस प्रकार किया जा सकता है?
 - (क) पढ़ने-लिखने में व्यस्त रहकर (ख) धार्मिक पुस्तकें पढ़कर
 - (ग) राजनीति पर चर्चा करके (घ) परिवार जनों से बात करके
- (iii) काव्यांश के आधार पर बताएँ कि हम अपने अभिभावकों का नाम कैसे रोशन कर सकते हैं?
 - (क) उनकी छत्रछाया में रहकर (ख) उनकी आज्ञा का पालन करके
 - (ग) उनका सम्मान करके (घ) उनके मार्गदर्शन में कार्य करके
- (iv) निम्नलिखित कथनों को ध्यानपूर्वक पढ़कर दिए गए विकल्पों में से उचित विकल्प का चयन कीजिए–
 अभिकथन (A) : चाहते हैं लोग कहना मत करो कुछ शोक कहना।
 कारण (R) : न चाहते हुए भी अपने परिवारजनों को झूठी सांत्वना देते हैं कवि।
 (क) A अनुचित है और R उसकी उचित व्याख्या है।
 (ख) A और R दोनों अनुचित हैं।
 - (ग) A उचित है और R उसकी उचित व्याख्या है।
 - (घ) A उचित है और R उसकी अनुचित व्याख्या है।

- (v) 'कातने में व्यस्त हूँ' पंक्ति के माध्यम से कवि ने किस ओर संकेत किया है?
 - (क) अपने माता-पिता के आदर्शों का अनुकरण करना
 - (ख) गाँधी जी के आदर्शों का अनुकरण करना
 - (ग) अपने साथियों के आदर्शों का अनुकरण करना
 - (घ) भगत सिंह के आदर्शों का अनुकरण करना
- निम्नलिखित गद्यांश को ध्यानपूर्वक पढ़कर पूछे गए प्रश्नों के उत्तर हेतु उचित विकल्प का चयन कीजिए– (1×5)

धनराम की मंदबुद्धि रही हो या मन में बैठा हुआ डर कि पूरे दिन घोटा लगाने पर भी उसे तेरह का पहाड़ा याद नहीं हो पाया था। छुट्टी के समय जब मास्साहब ने उससे दुबारा पहाड़ा सुनाने को कहा तो तीसरी सीढ़ी तक पहुँचते-पहुँचते वह फिर लड़खड़ा गया था। लेकिन इस बार मास्टर त्रिलोक सिंह ने उसके लाए हुए बेंत का उपयोग करने की बजाय जबान की चाबुक लगा दी थी, 'तेरे दिमाग में तो लोहा भरा है रे! विद्या का ताप कहाँ लगेगा इसमें?' अपने थैले से पाँच छ: दरातियाँ निकाल कर उन्होंने धनराम को धार लगाने के लिए पकड़ा दी थी। किताबों की विद्या का ताप लगाने की सामर्थ्य धनराम के पिता की नहीं थी। धनराम हाथ-पैर चलाने लायक हुआ ही था कि बाप ने उसे धौंकनी फूँकने या सान लगाने के कामों में उलझाना शुरू कर दिया और धीरे-धीरे हथौड़े से लेकर घन चलाने की विद्या सिखाने लगा। फर्क इतना ही था कि जहाँ मास्टर त्रिलोक सिंह उसे अपनी पसंद का बेंत चुनने की छूट दे देते थे वहाँ गंगाराम इस का चुनाव स्वयं करते थे और जरा सी गलती होने पर छड़, बेंत, हत्था जो भी हाथ लग जाता उसी से अपना प्रसाद दे देते। एक दिन गंगाराम अचानक चल बसे तो धनराम ने सहज भाव से उनकी विरासत सँभाल ली और पास-पड़ोस के गाँव वालों को याद नहीं रहा वे कब गंगाराम के आफर को धनराम का आफर कहने लगे।

- (i) 'गलता लोहा' पाठ के आधार पर बताएँ कि धनराम तेरह का पहाड़ा याद क्यों नहीं कर पाता?
 - (क) वह पढ़ना नहीं जानता था
 - (ख) वह परिस्थितिवश पहाडा़ याद करने में असमर्थ था
 - (ग) वह पढ़ना नहीं चाहता था
 - (घ) वह मंदबुद्धि बालक था

- (ii) 'तेरे दिमाग में लोहा भरा है रे' दी गई टिप्पणी का क्या कारण था?
 - (क) विद्यार्थी से नाराज होना (ख) विद्यार्थी को दुविधा में डालना
 - (ग) विद्यार्थी को डाँटना (घ) विद्यार्थी पर कटाक्ष करना
- (iii) धनराम के पिता द्वारा उसे बचपन में ही परंपरागत व्यवसाय में संलग्न करना उनकी कौन-सी विवशता को दर्शाता है?
 - (क) अशिक्षा (ख) निर्धनता
 - (ग) अरुचि (घ) जागरूकता
- निम्नलिखित कथनों को ध्यानपूर्वक पढ़कर पूछे गए प्रश्न हेतु उचित उचित विकल्प (iv) का चयन कीजिए-अभिकथन (A) : पास-पडोस के गाँव वालों को याद ही नहीं रहा कि कब वे गंगाराम के आफर को धनराम का आफर कहने लगे। कारण (R) : धनराम ने सहज भाव से अपने पिता की विरासत को सँभाल लिया। (क) A उचित है R उसकी उचित व्याख्या नहीं है। (ख) A और R दोनों उचित हैं (R) (A) की उचित व्याख्या है। (ग) A और R दोनों अनुचित हैं। (घ) A उचित है और R अनुचित। 'जुबान की चाबुक' से क्या तात्पर्य है? (v) (क) सूक्तिबाण चलाना उपदेश देना (ख) (ग) ज्ञान बाँटना (घ) उल्टा सीधा कहना

6. (i) लता के गानों में कोमलता व मुग्धता है दूसरी ओर पार्श्व गायिका नूरजहाँ के गानों
 में क्या विशेषता है? (1×10)

- (क) नादमय उच्चार (ख) निर्मलता
- (ग) मादकता और उत्तान (घ) गानपन

(ii) लता मंगेशकर की लोकप्रियता का मुख्य मर्म है-

(क)	मनुष्यता	(ख)	गानपन
(ग)	अपनापन	(घ)	चपलता

- (iii) लेखक की दृष्टि में लता के गानों में कौन-सी दो मुख्य कमियाँ हैं?
 - (क) स्वरों की कोमलता और सुरीलापन न होना
 - (ख) करुण रस के गानों के साथ न्याय नहीं, समान्यत: ऊँची पट्टी में गान
 - (ग) शब्दों का उच्चारण सही न होना
 - (घ) सुलभता और लोच का न होना
- (iv) ''चित्रपट संगीत ने लोगों के कान बिगाड़ दिए हैं'' के संबंध में लेखक का क्या विचार था?
 - (क) लोगों की अभद्र संगीत में रुचि (ख) चित्रपट संगीत का गिरता स्तर
 - (ग) चित्रपट संगीत में असभ्य शब्दों का प्रयोग
 - (घ) चित्रपट संगीत से आनंदानुभूति
- (v) आच प्रथा से क्या तात्पर्य है?
 - (क) कुंई खोदने वाले मजदूर
 - (ख) मज़दूरों को रोजगार देना
 - (ग) मज़दूरों को भेंट देकर सम्मानित करना
 - (घ) मज़दूरों को भोजन देना
- (vi) कुंई की खुदाई करते समय ऊपर से मुट्ठी भर-भर कर रेत क्यों फेंका जाता है?
 - (क) ज़हरीली गैस को उड़ाने के लिए
 - (ख) हवा नीचे पहुँचाने के लिए
 - (ग) गहराई का पता करने के लिए
 - (घ) जल देवता को प्रसन्न करने के लिए

- (vii) 'राजस्थान को रजत बूँदें' पाठ में निहित संदेश है-
 - (क) जल संरक्षण (ख) कुँओं में जल एकत्रित करना
 - (ग) मजदूरों का सम्मान (घ) चेलवांजी और कुंई प्रथा
- (viii) लेखिका मकान मालिक को तातुश क्यों कहती थी?
 - (क) वे लेखिका को बेटी की तरह मानते थे
 - (ख) वे लेखिका के साथ आत्मीयपूर्ण व्यवहार करते थे
 - (ग) सभी उन्हें तातुश कहकर संबोधित करते थे
 - (घ) वे वास्तव में उसके पिता थे
- (ix) बेबी हालदार के संबंध में ऐसा क्यों कहा गया कि ''तुम आशापूर्णा देवी बन सकती हो।''
 - (क) बेबी आशापूर्णा देवी की तरह दिखती है
 - (ख) आशापूर्णा देवी ने जीवन के अभावों से हार नहीं मानी
 - (ग) संघर्षमयी जीवन के कारण आशापूर्णा देवी सफल न हो सकीं
 - (घ) नौकरानी का कार्य करते-करते आशापूर्णा देवी हताश हो गईं
- (x) 'आलो आँधारि' पाठ की मूल संवेदना क्या है?
 - (क) गरीबों को घर में शरण देना
 - (ख) भूखों को भोजन देना
 - (ग) नौकरों के प्रति सद्व्यवहार रखना
 - (घ) घरेलू महिला नौकरानी को शोषण मुक्त परिवेश प्रदान करना

खंड 'ब' (वर्णनात्मक प्रश्न)

- दिए गए चार अप्रत्याशित विषयों में से किसी एक विषय पर लगभग 120 शब्दों में रचनात्मक लेख लिखिए– (5×1=5)
 - (क) वार्षिक परीक्षा के दिन (ख) प्रातःकालीन भ्रमण
 - (ग) मेरा गाँव (घ) प्लेटफार्म का दृश्य

 हिम्नलिखित में से किसी एक विषय पर लगभग 120 शब्दों में औपचारिक पत्र लिखिए– (5×1=5)

आपके क्षेत्र में सड़कों तथा नालियों की समुचित सफाई न होने के कारण डेंगू की समस्या पैदा हो गई है। इस संबंध में स्वास्थ्य अधिकारी को पत्र लिखिए।

अथवा

विभिन्न टी.वी. चैनल द्वारा प्राय अंधविश्वासों को प्रोत्साहित करने वाले अवैज्ञानिक और तर्कहीन कार्यक्रम दिखाए जाने के विरोध में अपने विचार व्यक्त करते हुए किसी समाचार पत्र के संपादक को पत्र लिखिए।

- 9. निम्नलिखित में से किन्हीं दो प्रश्नों के उत्तर लगभग 60 शब्दों में लिखिए- (3×2=6)
 - (क) डायरी को परिभाषित करते हुए यह भी बताइए कि डायरी लेखन के समय किन महत्त्वपूर्ण तथ्यों का ध्यान रखना चाहिए?
 - (ख) 'पटकथा' से क्या तात्पर्य है? नाटक और फिल्म की पटकथा में क्या अंतर होता है?
 - (ग) पटकथा लिखते हुए किन-किन बातों का ध्यान रखना आवश्यक है और क्यों?
- 10. निम्नलिखित में से किन्हीं दो प्रश्नों के उत्तर लगभग 40 शब्दों में लिखिए- (2×2=4)
 (क) स्ववृत्त क्या है और इसके कितने पक्ष होते हैं?
 - (ख) शब्दकोश के महत्त्व पर प्रकाश डालिए।
 - (ग) 'संदर्भ ग्रंथ' के विषय में संक्षिप्त टिप्पणी लिखिए।
- 11. निम्नलिखित प्रश्नों में से किन्हीं दो प्रश्नों के उत्तर लगभग 50 से 60 शब्दों में लिखिए– (3+3=6)
 - (क) कबीर ने उस परमसत्ता को एक बताया है किन तर्कों के द्वारा उन्होंने इसकी पुष्टि की है?

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- (ख) 'दुष्यंत कुमार की गज़ल का मिजाज़ परिवर्तन के पक्ष में है'-इस कथन के आलोक
 में अपने विचार प्रकट करें।
- (ग) कवयित्री 'निर्मला पुतुल' के अनुसार आदिवासी समाज की कौन-सी तीन विशेषताएँ
 उसकी विशिष्ट पहचान हैं?

12. निम्नलिखित प्रश्नों में से किन्हीं दो प्रश्नों के उत्तर लगभग 30 से 40 शब्दों में लिखिए–
 (2+2=4)

- (क) मीरा ने 'लोक-लाज' खो दी थी-से क्या तात्पर्य है?
- (ख) चंपा के मन में अक्षरों के प्रति क्या जिज्ञासा थी?
- (ग) पहले वचन में कवयित्री अक्क महादेवी ने मनुष्य के कौन-कौन से स्वाभाविक विकारों का उल्लेख किया है?

 13. निम्नलिखित प्रश्नों में से किन्हीं दो प्रश्नों के उत्तर लगभग 50 से 60 शब्दों में लिखिए– (3+3=6)

- (क) सिद्ध कीजिए कि 'नमक का दारोगा' कहानी धन पर धर्म की विजय गाथा है।
- (ख) फिल्म निर्माण सहज कार्य नहीं है इस दृष्टि से बताएँ कि एक फिल्मकार को फ़िल्म की शूटिंग करते समय किन समस्याओं का सामना करना पड़ता है?
- (ग) 'भारत माता' पाठ के आधार पर बताएँ कि भारत के विकास को लेकर आप क्या सपने देखते हैं?

14. निम्नलिखित प्रश्नों में से किन्हीं दो प्रश्नों के उत्तर लगभग 30 से 40 शब्दों में लिखिए– (2+2=4)

- (क) मियाँ नसीरुद्दीन का शब्द चित्र लेखिका ने कैसे खींचा है?
- (ख) लार्ड कर्जन को इस्तीफा क्यों देना पड़ा?
- (ग) 'जामुन का पेड़' पाठ के भीतर छिपे व्यंग्य को स्पष्ट कीजिए।

कक्षा-ग्यारहवीं

विषय-हिंदी (केंद्रिक) अंक विभाजन तथा उत्तर संकेत

निर्देश : यदि ऐसा कोई सही उत्तर जो परीक्षार्थी ने लिखा हो, परन्तु निम्नलिखित उत्तर संकेत में सम्मिलित न हो तो उसके भी यथासंभव अंक दिए जाएँ।

प्रश्न संख्या		निर्धारित अंक	कुल अंक	
1.	(i)	(ग) एकाग्रता एवं रचनात्मकता का विकास	1	
	(ii)	(घ) रुचि के अनुसार कार्य करने में	1	
	(iii)	(ख) तथ्यों को जुटाकर उन पर विचार करना	1	
	(iv)	(क) अलग ढंग, अपने तरीके से तैयार करना	1	
	(v)	(ख) प्रत्येक का अनुभव अलग-अलग होता है	1	
	(vi)	(ख) समस्याओं के निदान के लिए और समुचित जानकारी प्रदान करने के लिए	1	
	(vii)	(क) समस्याओं के निदान के लिए	1	
	(viii))(क) शैक्षिक परियोजना	1	
	(ix)	(ग) शोध	1	
	(x)	(क) कथन (A) तथा कारण (R) दोनों सही हैं तथा कारण कथन की सही व्याख्या करता है	1	10
2.	(i)	(क) दीपक से	1	
	(ii)	(क) विपरीत परिस्थितियों में विजय पाने को	1	
	(iii)	(ग) प्रतिकूल परिस्थितियों का	1	
		18		

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	(iv) (ख) बाधाओं के	1	
	(v) (घ) संघर्ष के साथ अग्रसर होने का	1	
	अथवा		
	(i) (क) सर्वश्रेष्ठ एवं सरताज बनकर	1	
	(ii) (ख) वह जग-हित में अपना स्वार्थ साधती है	1	
	(iii) (घ) खग	1	
	(iv) (ग) क्षणिक क्षणों में श्रेष्ठ बनकर जीना		
	लक्ष्यरहित कार्य सफल नहीं होते	1	
	(v) (ग) नि:स्वार्थ भाव	1	5
3.	(i) (ख) संदेश में निहित अर्थ को समझना	1	
	(ii) (घ) सिनेमा	1	
	(iii) (क) अंत:वैयक्तिक	1	
	(iv) (क) (i)-(iv), (ii)-(i), (iii)-(ii), (iv)-(iii)	1	
	(v) (घ) ऐतिहासिक घटनाओं का विवरण	1	5
4.	(i) (ख) सावन – माता पिता	1	
	(ii) (क) पढ़ने-लिखने में व्यस्त रहकर	1	
	(iii) (घ) उनके मार्गदर्शन में कार्य करके	1	
	(iv) (ग) A उचित है और R उसकी उचित व्याख्या है	1	
	(v) (ख) गाँधी जी के आदर्शों का अनुकरण करना	1	5
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5.	(i)	(ख)	वह परिस्थितिवश पहाड़ा याद करने में असमर्थ था	1	
	(ii)	(घ)	विद्यार्थी पर कटाक्ष करना	1	
	(iii)	(ख)	निर्धनता	1	
	(iv)	(ख)	(A) और (R) दोनेां उचित हैं (R) A की उचित व्याख्या है	1	
	(v)	(क)	सूक्ति बाण चलाना	1	5
6.	(i)	(क)	नादमय उच्चार	1	
	(ii)	(ख)	गानपन	1	
	(iii)	(ख)	करुण रस के गानों के साथ न्याय नहीं, ऊँची पट्टी में गाना	1	
	(iv)	(घ)	चित्रपट संगीत में आनंदानुभूति	1	
	(v)	(ग)	मजदूरों को भेंट देकर सम्मानित करना	1	
	(vi)	(ख)	हवा नीचे पहुँचाने के लिए	1	
	(vii)	(क)	जल संरक्षण	1	
	(viii)	(क)	वे लेखिका को बेटी की तरह मानते थे	1	
	(ix)	(ख)	आशापूर्णा देवी ने जीवन के अभावों से हार नहीं मानी	1	
	(x)	(घ)	घरेलू महिला नौकरानी को शोषणमुक्त परिवेश प्रदान करना	1	10
7.	विषयव	ास्तु		3	
	प्रस्तुति			1	
	भाषा			1	5
			20		

8.	प्रारूप		2	
	विषयव	त्रस्तु	2	
	भाषा		1	5
9.	(ख)	 डायरी की परिभाषा-हम दिन भर जिन घटनाओं, गतिविधियों और विचारों से गुजरते रहे हैं, उन्हें डायरी के पृष्ठों में शब्दबद्ध करना ही डायरी लेखन कहलाता है। ध्यान देने योग्य आवश्यक तथ्य- वह डायरी प्रयोग से बचना चाहिए जिसमें पहले से ही तिथि अंकित हो। बाहरी दबावों से मुक्त होकर लिखना। दिनभर की मुख्य घटनाओं या गतिविधि का चयन करके लिखना। डायरी की भाषा-शैली में स्वाभाविकता रहनी चाहिए। 'पटकथा' दो शब्दों के योग से बना है-'पट'-परदा, 'कथा'-कहानी। ऐसी कहानी जो पर्दे पर दिखाई जाए, वही पटकथा है। जांतर- नाटक के दूश्य लंबे होते हैं। घटनास्थल सीमित सजीव कला माध्यम कथा का विकास एक-रेखीय 	2	

		फिल्म		
		• दृश्य छोटे		
		 घटनास्थल को कोई सीमा नहीं 		
		• पूर्व रिकार्डेड छवियाँ व ध्वनियाँ	2	
		• कथा का विकास कई प्रकार से—फ्लैशबैक, फ्लैशबैक फॉरवर्ड		
	(ग)	 प्रत्येक दृश्य के साथ घटित होने वाली घटना के समय का संकेत देना। 		
		 दृश्य के प्रारंभ में पात्रों की गतिविधियों के संकेत देना। 		
		• किसी आधार को लेकर दृश्यों का विभाजन होना।		
		• प्रत्येक विषय के साथ घटनास्थल का उल्लेख।		
		• पात्रों के हाव-भाव का उल्लेख।		
		• घटना कहाँ घट रही है–अंदर या बाहर।	2	
		क्यों —क्योंकि इनके अभाव में पटकथा अपनी पहचान खो देगी, कथा को पर्दे तक पहुँचाना कठिन हो जाएगा।		6
10.	(क)	एक विशेष प्रकार का लेखन जिसमें किसी व्यक्ति विशेष के बारे में विशेष प्रयोजन को ध्यान में रखकर क्रमबद्ध तरीके से सूचनाएँ संकलित की जाती हैं, स्ववृत्त (बायोडाटा) कहलाता है। स्ववृत्त उम्मीदवार के प्रतिनिधि के रूप में कार्य करता है। स्ववृत्त नियोक्ता के मन में उम्मीदवार के प्रति एक सकारात्मक धारणा प्रस्तुत करता है। इसलिए एक अच्छे स्ववृत्त को एक चुंबक की तरह माना जाता है। स्ववृत्त के दो पक्ष होते हैं–		
		1. उम्मीदवार—जिसको केंद्र में रखकर सूचनाएँ संकलित की जाती हैं।		
		2. नियोक्ता या संस्था–जिसके प्रयोजन को ध्यान में रखकर	2	
		सूचनाएँ एकत्रित की जाती हैं।		
	I	22		

	(ख)	शब्दकोश का महत्त्व		
		 शब्दों के अर्थ, सरलता से ज्ञात हो जाते हैं। 		
		 शब्द के विषय में सम्पूर्ण जानकारी प्रदान करते हैं। 		
		 सभी शब्द एक ही कोश में उपलब्ध, हमें भटकना 		
		नहीं पड़ता।		
		 शब्दों की वर्तनी, व्युत्पति, व्याकरण निर्देश, अर्थ, 	2	
		परिभाषा और प्रयोग आदि की जानकारी।		
	(ग)	 जिस प्रकार शब्दकोश में शब्दों के अर्थ दिए होते हैं, 		
		उसी प्रकार संदर्भ ग्रंथ में मानव द्वारा संचित ज्ञान को		
		संक्षिप्त रूप से प्रस्तुत किया जाता है।		
		 किसी भी विषय की जानकारी शीघ्रता से प्राप्त 		
		इसमें जानकारियों का क्रम भी 'शब्दकोश' के नियमों		
		के अनुसार		
		• इसका विशद रूप 'विश्व ज्ञान कोष' है। इसमें मानव		
		द्वारा संचित प्रत्येक प्रकार को जानकारी और सूचना	2	4
		का संक्षिप्त संकलन		
11.	(क)	1. संसार में सर्वत्र एक पवन व जल है।		
		2. इस सृष्टि में एक ही ज्योति समाई हुई है।		
		3. वह कुम्हार (ईश्वर) एक ही है, उसने एक ही		
		मिट्टी से सबको बनाया है।		
		4. सभी प्राणियों में आत्मा के रूप में उस परमात्मा की		
		ही दिव्य ज्योति है।	3	
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	(ख)	1.	कवि वर्तमान स्थिति से असंतुष्ट है।		
		2.	मानव-मूल्यों के पतनोन्मुख होने से चिंतित है।		
		3.	आज पूरी राजनीतिक व्यवस्था भ्रष्टाचार से ओतप्रोत है।		
		4.	आम व्यक्ति निराश और हताश है परंतु अभावग्रस्त जीवन		
			निर्वहन करने को विवश है।		
		5.	कवि अपनी आवाज से लोगों को जागरूक करने एवं		
			परिवर्तन तथा क्रांति का आह्वान करता है।	3	
	(ग)	1.	'दिल का भोलापन', 'अक्खड़पन', 'जुझारूपन'।		
		2.	दिल के भोलेपन में सहजता का भाव है, मन पर शहर		
			कलुष का साया नहीं पड़ा है। अक्खड़पन से तात्पर्य है		
			अपनी बात पर दृढ़ रहने का भाव। जुझारूपन में		
			संघर्षशीलता की झलक।		
		3.	कवयित्री, समाज में आ रही आलस्य की प्रवृत्ति और		
			जीवन में उत्साहीनता को समाप्त करने के लिए उनके		
			विशिष्ट गुणों का बखान करती है।	3	6
		(क	ोई दो अपेक्षित)		
12.	(क)	1.	समस्त राजस्थान में पर्दा प्रथा, राजसी राजपूत समाज में		
			अधिक बंदिशें।		
		2.	ऐसे समाज में बंधनों को तोड़ कर मीरा का भजन-		
			कीर्तन करते हुए गली-गली घूमना।		
		3.	उन्होंने समाज की लाज-मर्यादा का उल्लंघन किया, उसे		
			त्याग दिया।	2	

	(ख)	1. चंपा अनपढ़ ग्रामीण लड़की थी, जब वह कवि को		
		पढ़ते-लिखते हुए देखती तो उसे यह बात अजूबा सी लगती।		
		2. वह सोचती इन काले-काले अक्षरों में से स्वर कैसे		
		निकलते हैं।	2	
		3. फिर सोचती क्या यह पढ़ने-लिखने का काम बहुत अच्छा है पर खुद पहुने लिखने से सफह दावरा बन देनी।		
	(T)	ह पर खुद पढ़न-लिखन स साफ इनफार फर दता।		
	(4)	1. प्रत्यक मनुष्य म स्यामायक रूप स लाम, माह, फ्राय, मद, ईर्ष्या, नींद आदि विकार होते हैं।		
		2. भूख मचलाती है, प्यास तड़पाती है, नींद सताती है,		
		लोभ ललचाता है, ईर्ष्या जलाती है और नशा व्यक्ति पर		
		हावी हो जाता है।	2	
		3. इन विकारों में फसकर व्यक्ति का कोई भला नहीं होता है।		4
		(कोई दो अपेक्षित)		
13.	(क)	1. पंडित अलोपीदीन धन का उपासक था उसे लक्ष्मी पर		
		अखंड विश्वास था।		
		2. उसके अनुसार धन की शक्ति से असंभव कार्य को भी		
		सभव किया जा सकता हा		
		3. इसके लिए वह रिश्वत दकर गरकानूना काथ करता था।		
		4. दारांगा वर्शाधर द्वारा गरकानूना ढग स नमक ल जा रहा		
		गाड़िया का पकड़ने पर भा उसने रिश्वत दकर अपना जन्म पिन्द जन्म जन्म		
		फाम सिद्ध करना पाहा।		

	5.	वंशीधर ने उसकी हर पेशकश ठुकराकर उसे गिरफ्तार कर लिया।	
	6.	अलोपीदीन के अब तक के जीवन में यह पहली बार घटित हुआ था जब धन की शक्ति धर्म के समक्ष पराजित हो गई थी, धर्म ने धन पर विजय पाई थी।	3
(ख)	1.	फिल्मकार के लिए फ़िल्म निर्माण एक अबूझ पहेली की तरह होती है, अनेक प्रकार के रोमांच शंकाओं और आशंकाओं से गुजरता हुआ वह निर्माण कार्य सम्पन्न करता है।	
	2.	फ़िल्म सृजन के साथ फ़िल्म की शूटिंग करते समय उसे अनेक समस्याओं का सामना करना पड़ता है जिसमें सर्वोपरि धन का अभाव है।	
	3.	कलाकारों का चयन करना, कलाकारों के स्वास्थ्य, मृत्यु आदि की स्थिति पर विकल्प की खोज करना।	
	4.	पशु-पात्रों के दृश्य फिल्मांकन की समस्या।	
	5.	बाहरी दृश्यों हेतु लोकेशन ढूँढना, प्राकृतिक दृश्यों के लिए मौसम पर निर्भरता।	3
	6.	दृश्यों की निरंतरता हेतु भटकना, स्थानीय लोगों का हस्तक्षेप व असहयोग।	
	7.	संगीत एवं साउंड की उत्तम गुणवत्ता की चिंता।	
(ग)	1.	समस्त भारतीयों की मूलभूत आवश्यकताएँ पूर्ण हों।	
	2.	सभी भारतीयों को रोटी, कपड़ा और मकान सहजता से प्राप्त हो।	
	3.	शिक्षा का अधिकार सबको मिले व सबको रोजगार मिले।	
	4.	देश के कृषि व औद्योगिक क्षेत्रों में विकास हो।	3
	5.	देश में तकनीकी क्रांति आए।	
	6.	देश में शांति का वातावरण रहे।	
	(को	ई दो अपेक्षित)	

14.	(क)	1. मौसमों की मार से पका चेहरा		
		2. आँखों में काइयाँ भोलापन		
		3. पेशानी पर मॅंजे हुए कारीगर के तेवर	2	
	(ख)	1. सरकारी निरंकुशता के पक्षधर।		
		2. ब्रिटिश कौंसिल में अपने मनपसंद अंग्रेज सदस्य को		
		नियुक्त करवाने का प्रयास।		
		3. नियुक्ति न होने पर अपमान, इस्तीफे की धमकी,		
		इस्तीफा मंजूर होने पर भारत से जाना पड़ा।	2	
	(ग)	कार्यालयी तौर-तरीकों में विस्तार की निरर्थकता और पदों		
		की क्रम संख्या की हास्यास्पद दशा।		
		1. मानवीय संवेदना की उपेक्षा।		
		2. आरोप-प्रत्यारोप, जिम्मेदारी से पलायन, काम के प्रति		
		उदासीनता।	2	4
		(कोई दो अपेक्षित)		

SAMPLE QUESTIONPAPER

CLASS XI (2022-23)

MATHEMATICS

Time allowed: 3 hours

Maximum marks:80

General instructions:

- 1. The Question paper contains- five sections A,B, C, D and E. Each section is compulsory. However, there are internal choices in some questions.
- 2. Section A has 18 MCQ's and 02 Assertion-Reason based questions of 1 mark each.
- 3. Section B has 5 very short (VSA)- type questions of 2 marks each.
- 4. Section C has 6 short (SA)- type questions of 3 marks each.
- 5. Section D has 4 long (LA)- type questions of 5 marks each.
- 6. Section E has 3 source based/case-based questions of 4 marks each.

SECTION A

Q1. If (x, 3y, 4) = (4, -3, 2z), then the value of x + 2y + 2z is

(a) 6 (b) 1 (c) -1 (d) -2

Q2. The value of: $i^{49} + i^{50} + i^{51} + i^{52}$ where i = $\sqrt{-1}$ (a) 1 (b) 0 (c) i (d) -i

Q3. The intercept form of the equation of line 7x + 4y - 28 = 0 is

a)
$$\frac{x}{4} + \frac{y}{7} = 1$$
 b) $\frac{x}{-4} + \frac{y}{-7} = 1$ c) $\frac{x}{4} + \frac{y}{-7} = 1$ d) $\frac{x}{7} + \frac{y}{4} = 1$

Q4. If
$$\lim_{x \to 1} \frac{x^4 - 1}{x - 1} = \lim_{x \to k} \frac{x^3 - k^3}{x^2 - k^2}$$
 then k is_____
(a) $\frac{2}{3}$ (b) $\frac{8}{3}$ (c) $\frac{4}{3}$ (d) 3

Q5. Five marbles are drawn from a bag which contains 7 blue marbles and 4 black marbles. What is the probability that all drawn marbles are blue?

(a)
$$\frac{5}{11}$$
 (b) $\frac{2}{11}$ (c) $\frac{1}{22}$ (d) $\frac{5}{7}$

Q6. An arc of circle of length $\frac{330}{7}$ cm makes an angle of $\frac{3\pi}{4}$ at the center of the circle. The radius of the circle is

(a) 10 cm (b) 20 cm (c) $11\frac{1}{4}$ cm (d) $22\frac{1}{2}$ cm

Q7.Solve:4x + 7 < 6x + 3 for real values of x.

(a) $x \in (2, \infty)$ (b) $x \in (-\infty, 2)$ (c) $x \in (-2, \infty)$ (d) $x \in (-\infty, -2)$

Q8 If $\frac{1}{9!} + \frac{1}{10!} = \frac{x}{11!}$, find x.

(a) 100 (b) 90 (c) 110 (d) 121 Q9. The coordinates of centre of a circle $x^2 + y^2 + 4x - 6y + 8 = 0$ is

a) (-2,-3) b) (2,3) c) (-2,3) d) (2,-3)

Q10. $\lim_{x \to 0} \frac{10^{x} - 5^{x} - 2^{x} + 1}{x^{2}}$ is _____ (a) log 5 (b)log 2 (c) $log \frac{5}{2}$ (d)log 5log 2

Q11. If A lies in second quadrant and $3 \tan A + 4 = 0$, then the value of $2 \cot A - 5 \cos A + \sin A$ is equal to

(b) $\frac{23}{10}$ (c) $\frac{37}{10}$ (a) $\frac{-53}{10}$ (d) $\frac{-37}{10}$ Q12. The coefficient of x^2 in the expansion of $(1 - 2x)^5$ is: (a) -80 (b) -40 (c) 40 (d) 80 Q13. Equation of the directrix of the parabola y^2 = 16x is b) x = -4 c) y = 4 d) y = -4a) x = 4 Q14. Derivative of sin2x at $x = \frac{\pi}{6}$ is_____ $(b)\frac{\sqrt{3}}{2}$ (a) −1 (c)0 (d)1 Q15. Find $n(S \cap P)$ where S = {x: x is a multiple of 3 less than 20} and $P = \{x: x \text{ is a prime number less than } 20\}$ (a) 0 (b) 1 (C) 2 (d) 3 Q16. Given that the general term of a sequence is represented by $T_n = \begin{cases} n(n+2), \text{ if n is even number} \\ \frac{4n}{n^2+1}, \text{ if n is odd number} \end{cases}$ Find 15th term b) 255 c) $\frac{10}{113}$ d) $\frac{30}{113}$ a) 240

Q17. Image of the point (4,-7,6) in xy plane is

a) (4,-7,-6) b) (-4,7,-6) c) (4,-7,6) d) (-4,7,6) Q18. Distance of the point (4,6,-8) from x - axis is

a) 10 units b) $\sqrt{116}$ units c) 4 units d) $\sqrt{52}$ units

ASSERTION-REASON BASED QUESTIONS

In the following questions, a statement of assertion (A) is followed by a statement of Reason

(R). Choose the correct answer out of the following choices.

- (a) Both A and R are true and R is the correct explanation of A.
- (b) Both A and R are true and R is not the correct explanation of A.
- (c) A is true but R is false.
- (d) A is false but R is true.

Q19.Assertion (A): The number of permutations of the letters of the word

INDEPENDENCE is $\frac{12!}{3!4!2!}$

Reason (R): The number of permutations of n different objects taken r at a time, where $0 < r \le n$ and the objects do not repeat is ${}^{n}P_{r}$.

Q20. Assertion (A): $A = \{x \in R : 3 < x < 4\}$ is an infinite set.

Reason(R): Between two Real numbers there are infinite Real numbers.

SECTION B

Q21. If $U = \{1, 2, 3, 4, 5, 6, 7, 8, 9\}, A = \{1, 2, 3, 4\}, B = \{2, 4, 6, 8\}, C = \{3, 4, 5, 6\}, \text{ find:}$

(i) $(A \cup B)'$ (ii) (B - C)'

Q22 Find the real values of x and y if $\frac{x+iy}{1+i}$ is the conjugate of 5-i.

Q23 Find the term independent of x in the expansion of $\left(x - \frac{1}{3x^2}\right)^{12}$, $x \neq 0$.

Q24. Find the variance of all factors of 6.

Or

The mean of 50 observations is 20 and their standard deviation is 2. Find the sum of squares of all the observations.

Q25 Define Greatest integer function. Draw its graph for -2 < x < 2. Hence, write the value of

[-1.9] and **[1.2]**.

Or

Let the relation R be defined on N such that R= $\{(x, y): y = 2x; x, y \in N\}$. What is the Domain, Codomain and Range of R? Is this relation a function?

SECTION C

Q26. Show that for any two sets A and $B, A \cup B = A \cap B$ implies A = B.

Q27. Solve the system of inequalities in R

 $\frac{7x-1}{2} < -3, \qquad \frac{3x+8}{5} + 11 < 0$

and hence, represent its solution on the real number line.

Or

How many litres of water will have to be added to 600 litres of the 45% solution of acid so that the resulting mixture will contain more than 20% but less than 30% acid content

Q28. Find the equation of hyperbola having the foci $(0, \pm \sqrt{10})$ and passing through the point (2,3).

Find the equation of the ellipse whose centre is at the origin, length of major axis is $\frac{9}{2}$ and $e = \frac{1}{\sqrt{3}}$, where the major axis is the horizontal axis.

Q29 Find the Domain of $f(x) = \frac{1}{\sqrt{x+|x|}}$

Q30. Find the ratio of two positive numbers a and b such that AM: GM = 2:1

Q31. Find $\sin \frac{x}{2}$, $\cos \frac{x}{2}$ and $\tan \frac{x}{2}$ when $\tan x = \frac{-4}{3}$, x is in quadrant II.

Or

Prove that: $\frac{\sec 8x - 1}{\sec 4x - 1} = \frac{\tan 8x}{\tan 2x}$

SECTION D

Q32 For the function f, given by $f(x) = \sin x$, complete the following table:

x	-2π	$\frac{-3\pi}{2}$	$-\pi$	$\frac{-\pi}{2}$	0	$\frac{\pi}{2}$	π	$\frac{3\pi}{2}$	2π
f(x)			0		0	1			

Hence, draw the graph using appropriate scale. Also find the maximum and minimum value of y.

Q33. Aman saw his younger brother playing with building blocks. He observed that he is playing in a pattern by making a tower of 32 blocks and then dividing into half a tower of 16 blocks and so on till he got a tower of 1 block.

a) What kind of pattern is brother making? Also, how many towers did the boymake? (2)

b) How many total blocks does the boy carry with him? (3)

Or

On a Sunday, Sunil and his friend went to see a circus show and observed that thearrangement of chairs in a row has a peculiar arrangement. The number of chairs in his row, which is the third row, are 125 and the number of chairs in the first row are 75. The number of chairs is increasing by a fixed number. There are 12 rows of chairs in all.

a) How many chairs are there in the 7th row, where his friend is seated? (2)

b) If all the chairs are occupied, how many people saw that show? Also, find the

arithmetic mean of the number of chairs in the row Sunil and his friend were seated? (3)

Q34. Find the derivative of *xsinx* using first principle.

Or

If for $f(x) = ax^2 + bx + 12$, f'(4) = 15 and f'(2) = 11, then find a and b.

Q35. The mean and variance of 7 observations are 8 and 16 respectively. If five of the observations are 2, 4, 10, 12 and 14, find the remaining two observations.

SECTION E

Q.36 A student has 4 library tickets and, in the library, there are 2 language books, 4 subject specific books and 3 fictional books of his interest. Of these 9 books, he chooses exactly 2 subject specific books and 2 other books.



Based on the above information, answer the following questions:

- (i) In how many ways can he borrow the four books?
- (ii) Once selected, in how many ways, can he now arrange the borrowed books in his bookshelf so that the subject specific books are always kept together?
- Q37 Ram and Rahim are cousins living in the same colony. The lanes of their houses

are represented by the lines 4x - 3y + 6=0 and 4x - 3y - 9=0, respectively.



Based on the above information, answer the following questions:

(i)Find the slope of the lane where Rahim lives?

(ii)Find the angle between the two lanes?

(iii) What is the distance of the point (0,2) in Ram's lane to Rahim's lane?

Q38.Two Students A and B appeared in an examination. The Probability that A will qualify the examination is 0.05 and that B will qualify the examination is 0.10. The probability that both will qualify the examination is 0.02.



Based on the above information, answer the following questions:

- (i) What is the probability that both A and B will not qualify the examination?
- (ii) What is the probability that at least one of them will not qualify the examination?
- (iii) What is the probability that only one of them will qualify the examination?

CLASS-XI

Marking Scheme

SUBJECT-MATHEMATICS

MAXIMUM MARKS: 80

NOTE: Any other relevant answer, not given herein but given by the candidate, be suitably awarded.

Q.No.	Answer/Solutions/Value points	Step Marks	Total Marks
1.	a)6	1	1
2.		1	1
3.	$a)\frac{x}{4} + \frac{y}{7} = 1$	1	1
4.	$b)\frac{8}{3}$	1	1
5.	$(C)\frac{1}{22}$	1	1
6.	(b)20 cm	1	1
7.	a) $x \in (2, \infty)$	1	1
8.	d)121	1	1
9.	c) (-2,3)	1	1
10.	d)log5log2	1	1
11.	$b)\frac{23}{10}$	1	1
12.	c) 40	1	1
13.	b)x = -4	1	1
14.	d)1	1	1
15.	b)1	1	1
16.	$d)\frac{30}{112}$	1	1
17.	a)(4,-7,-6)	1	1
18.	a)10 units	1	1
19	b) Both A and R are true and R is not the correct explanation of A	1	1
20	a)Both A and R are true and R is the correct explanation of A	1	1
20.	(i) $(A \sqcup B) = \{1, 2, 3, 4, 6, 8\}$	1	•
21.	(i) $(A \cup B)' = \{5,7,9\}$ (ii) $(B - C) = \{2,8\}$ $(B - C)' = \{1,3,4,5,6,7,9\}$	1 1 2 1 2 1 2 1 2	2
22.	We are given, $\frac{x+iy}{z} = \overline{5-i}$		
	(x+iy)(1-i)		
	$\Rightarrow \frac{1}{2} = 5 + i$	1	
	$\Rightarrow (x + y) + \iota(-x + y) = 10 + 2i$		
	$\Rightarrow x + y = 10 \ ana - x + y = 2$ On solving, $x = 4 \ and \ y = 6$	1	2
23.	$T_{r+1} = {}^{12}C_r(x)^{12-r} \left(-\frac{1}{3r^2}\right)^r$		
L		1	1

	$={}^{12}C_r\left(-\frac{1}{3}\right)^r(x)^{12-r-2r}$		
	For term independent of x, we must have $12 - 3r = 0$	1	
	r = 4		
	$T_5 = {}^{12}C_4 \left(-\frac{1}{3}\right)^4 = \frac{55}{9}$		
	Hence 5 th term is independent of x and is given by ${}^{12}C_4\left(-\frac{1}{3}\right)^4=\frac{55}{9}$.	1	2
24.	Factors of 6=1,2,3,6		
	Mean $\bar{x} = \frac{121316}{4} = \frac{12}{4} = 3$	1	
	$\sum (x_i - \bar{x})^2 = (1 - 3)^2 + (2 - 3)^2 + (3 - 3)^2 + (6 - 3)^2 = 14$	$\frac{1}{2} \times 4$	2
	Variance= $\frac{\Sigma(x_i - x)^2}{4} = \frac{14}{4} = 3.5$		
24.(OR)	$\sum x_i^2$		
	$\sqrt{\frac{-1}{n} - (\bar{x})^2} = \sigma$		
	$\sum x_i^2 (20)^2 - 2^2$	1	
	$\frac{50}{50} = (20)^{-1} = 2$	1	2
	$\sum x_i^2 = (4 + 400) \times 50 = 20200$	•	2
25	Definition. The greatest integer function is the function defined as	1	
25.	$f(x) = [x]$ for all $x \in R$, where $[x]$ denotes the greatest integer less	$\frac{1}{2}$	
	than or equal to x.	_	
	· · · · · · · · · · · · · · · · · · ·		
	2		
	•	1	
	-3	2	2
	[-1.9] = -2	$\frac{1}{2}$	
		Z	
	[1.2] = 1	1	
		2	
	Domain=N		
	Codomain=N	1	
	Range=Set of all even natural Numbers	$\frac{1}{2} \times 4$	2
	one image $2x$ in N	2	



31.	$tanx = \frac{-4}{3}, \therefore cosx = -\frac{3}{5}$	1 1	
	$\frac{\pi}{2} < x < \pi, \qquad \therefore \frac{\pi}{4} < \frac{x}{2} < \frac{\pi}{2}$	$\frac{1}{2}$	
	$\cos\frac{x}{2} = \sqrt{\frac{1+\cos x}{2}} = \sqrt{\frac{1+\left(\frac{-3}{5}\right)}{2}} = +\sqrt{\frac{1}{5}}(first \ quadrant)$	$\frac{1}{2}$	
	$\sin\frac{x}{2} = \sqrt{\frac{1-\cos x}{2}} = \sqrt{\frac{1+\frac{3}{5}}{2}} = \sqrt{\frac{4}{5}} = +\frac{2\sqrt{5}}{5} (first \ quadrant)$	$\frac{1}{2}$	
	$\tan\frac{x}{2} = \frac{\sin\frac{2}{2}}{\cos\frac{x}{2}} = \frac{5}{\frac{1}{\sqrt{5}}} = 2$	$\frac{1}{2}$	3
31 .OR	$LHS = \frac{\frac{1}{\cos 8x} - 1}{\frac{1}{\cos 4x} - 1} = \frac{1 - \cos 8x}{\cos 8x} \times \frac{\cos 4x}{1 - \cos 4x} = \frac{2\sin^2 4x}{2\sin^2 2x} \times \frac{\cos 4x}{\cos 8x}$ $\frac{(2\sin 4x\cos 4x)\sin 4x}{\cos 4x} = \frac{\sin 8x(2\sin 2x\cos 2x)}{\cos 4x}$	$1\frac{1}{2}$	
	2sin ² 2xcos8x 2sin ² 2xcos8x sin8xcos2x tan8x	1	
	$\frac{1}{\sin 2x \cos 8x} = \frac{1}{\tan 2x} = RHS$	$\frac{1}{2}$	3
32.	$\begin{array}{ c c c c c c c c c c c c c c c c c c c$	3	
	f(x) 0 1 0 -1 0 1 0 -1 0		
	Maximum Value of $f(x) = 1$	1	
	Minimum Value of $f(x) = -1$	1	
	2 γ 2 γ 1 1 7 γ 1 7 7 7 7 7 7 7 7 7 7 7 7 7		
		1	5
33.	a)Towers of blocks: 32,16,8,4,2,1 It is a G.P.	$\frac{1}{2}$	
	Boy made 6 towers	$\frac{1}{2}$	2
	b) a = 32, n = 6, r = $\frac{1}{2}$	$\frac{1}{2}$	
	$S_n = \mathbf{a} \left(\frac{1 - r^n}{1 - r} \right)$	$\frac{1}{2}$	
	$\Rightarrow S_n = 32 \left(\frac{1 - \left(\frac{1}{2}\right)}{1 - \frac{1}{2}} \right)$	$\frac{1}{2}$	
	$\Rightarrow S_n = 32(\frac{1-\frac{1}{64}}{\frac{1}{2}})$ $\Rightarrow S_n = 63$	2 1	3
	$\rightarrow S_n - OS$		

	Or a)a= 75, $a_3 = 125$ d= 25 $\Rightarrow a_7 = 75 + 6(25) = 225$ b) $S_n = \frac{12}{2} [2 \times 75 + 11 \times 25]$ $= 6 \times 425$	$\begin{array}{c} \frac{1}{2} \\ \frac{1}{2} \\ 1 \\ 1 \\ 1 \\ 1 \end{array}$	2
	= 6 x 425 = 2550 Also, A.M. of 125 and 225 is 175	1	3
34.(OR)	f'(x) = 2ax + b $f'(4) = 15 \therefore 2a(4) + b = 15, 8a + b = 15 \dots \dots \dots (i)$ $f'(2) = 11 \therefore 2a(2) + b = 11, 4a + b = 11 \dots \dots \dots (ii)$ Subtracting (<i>ii</i>) from (<i>i</i>) 8a + b = 15 4a + b = 11	1 1 1	
	4a = 4 a = 1 Putting value of a in equation (<i>ii</i>)	1	
	4(1) + b = 11 b = 11 - 4 b = 7	1	5
34.	f(x) = xsinx f(x+h) = (x+h)sin (x+h) f(x+h) - f(x)		
	$f'(x) = \lim_{h \to 0} \frac{h}{h}$ $= \lim_{h \to 0} \frac{(x+h)\sin(x+h) - x\sin x}{h}$	1	
	$= \lim_{h \to 0} \frac{x[\sin(x+h) - \sin x]}{h} + \lim_{h \to 0} \frac{h\sin(x+h)}{h}$ $= \lim_{h \to 0} \frac{x[2\cos\frac{(x+h+x)}{2}\sin\frac{(x+h-x)}{2}]}{h} + \lim_{h \to 0} \frac{h\sin(x+h)}{h}$	1	
	$= \lim_{h \to 0} \frac{1}{h} + \lim_{h \to 0} \frac{1}{h}$	1	
	$= \lim_{h/2 \to 0} \frac{x[2\cos(x+\frac{1}{2})\sin\frac{1}{2}]}{2 \times \frac{h}{2}} + \lim_{h \to 0} \sin(x+h)$	1	
	= xcosx + sinx	1	5
35.	Let other two observations be x and y $\frac{2+4+10+12+14+x+y}{7} = 8$	1	
	42 + x + y = 56 x + y = 14 (i) Variance $\frac{\sum x_i^2}{1 - (x_i)^2} = \sigma^2$	1	
	$\frac{2^2 + 4^2 + 10^2 + 12^2 + 14^2 + x^2 + y^2}{x^2 + y^2} - 8^2 = 4^2$		

	From (i) and (ii)	1	
	F[0][1](l)ana(ll)	1	
	$x^{2} + (14 - x)^{2} = 100$		
	$x^2 - 14x + 48 = 0$		
	(x-8)(x-6) = 0		
	x = 6,8	1	
	When $x = 6, y = 8$		
	When $x = 8, y = 6$		
	∴other two numbers are 6 and 8	1	5
36.	(i) ${}^{4}C_{2} \times {}^{5}C_{2}$	1	
	= 60	1	
	(ii) 2! × 3!	1	
	= 12	1	4
37.	(i) slope = $\frac{4}{2}$	1	
	(ii) As the lines are parallel, therefore angle is zero	1	
	0-23-9		
	$(iii)d = \frac{1}{\sqrt{4^2 + (-3)^2}}$	1	
	$\begin{vmatrix} -15 \end{vmatrix}$ 4E/E Queito		
	$= \left \frac{1}{\sqrt{25}} \right = 15/5 = 3$ units	1	4
38.	Let E and F denote event that A and B will respectively qualify the		
	examination		
	$\therefore P(E) = 0.05, P(F) = 0.10, P(E \cap F) = 0.02, P(E \cup F) = 0.13$		
	(1) $P(Both A and B will not Qualify) = P(E' \cap F')$		
	$= P(E \cup F)' = 1 - P(E \cup F) = 1 - 0.13 = 0.87$	1	
	(ii) $P(At a a st one will not qualify) = 1 - P(both will qualify)$		
	(1) (1) (1) (1) (1) (1) (1) (1) (1) (1)	1	
	(iii) $P(only one will qualify) = P(F \cap F') + P(F' \cap F)$	•	
	$P(F) = P(F \cap f) + P(F) = P(F \cap F)$	1	
	1(L) - 1(L) + 1(L) - 1(L) +	•	
	$0.03 - 0.02 \pm 0.10 - 0.02 - 0.11$	1	4
		-	-

Class: XI PHYSICAL EDUCATION

Time: 03 Hours	2022- 2023	Maximum Marks: 70

General instructions:

- The questions paper consists of 5 sections and 37 questions.
- Section A consists of question 1-18 carrying 1 mark each and is multiple choice questions. All questions are compulsory.
- Section B consists of questions 19-24 carrying 2 marks each and are very short answer types and should not exceed 60-90 words. Attempt any 5.
- Section C consists of questions 25-30 carrying 3 marks each and are short answer types and should not exceed 100-150 words. Attempt any 5.
- Section D consists of questions 31-33 carrying 4 marks each and are case studies. There are internal choices available.
- Section E consists of questions 34-37 carrying 5 marks each and are long answer types and should not exceed 200-300 words. Attempt any 3.

Section A

- 1) As per the international standards, which of the following surfaces is used for field hockey?
 - a) Astro turf
 - b) Grass
 - c) PVC
 - d) Wooden
- 2) To check the fine noise or snick, as the ball passes the bat in cricket, which of the following technologies is used?
 - a) Hawk-eye
 - b) Snickometer
 - c) Photo Finish
 - d) Speed gun
 - 3) The idea of reviving the olympic games came from_____
 - a) Eunice Kennedy Shriver
 - b) Dion Nash
 - c) Ludwig Guttmann
 - d) Pierre De Coubertin
 - 4) Analyze the option given below and select the correct pair of the following statement. The new motto added in the 2020 Olympic and the city where this motto adopted:
 - a) Doping Free Tokyo
 - b) Heavier Paris
 - c) Together Tokyo
 - d) Closer Rio

- 5) As per elements of yoga, the pre stage of samadhi is known as
 - a) Yama
 - b) Pranayam
 - c) Dhyana
 - d) Dharna
- 6) Identify the professional who handles the issue with the CWSN's disability and movement disorder.
 - a) Physical Education teacher
 - b) Physiotherapist
 - c) Special Educator
 - d) Speech Therapist
- 7) Sports activities for adaptive physical education program should be designed as per:
 - a) Fix Norms
 - b) Rules of Federation
 - c) Modified as Required
 - d) Availability of Finance
- 8) Given below are the two statements labeled Assertion (A) and Reason (R): Assertion (A): Locomotor speed means maintaining top speed. Reason (R): Locomotor depends upon white muscle fibers.

Which one of the following statements is correct?

- (a) Both (A) and (R) are true and (R) is the correct explanation of (A)
- (b) Both (A) and (R) are true but (R) is not the correct explanation of (A)
- (c) (A) is true, but (R) is false
- (d) (A) is false but (R) is true

9) Match List – I with List – II and select the correct answer from the code given below:

	List - I List - II		List - II
(i)	Movement Time	1	to attain maximum speed from a stationary
			position.
(ii)	Acceleration Ability	2	Respond to a stimulus or signal.
(iii)	Reaction Speed	3	Maintaining speed under the conditions of fatigue.
(iv)	Speed Endurance	4	time taken to complete a single movement.

	CODES					
	i	ii	iii	iv		
a)	2	3	1	4		
b)	3	2	1	4		
C)	2	3	4	1		
d)	4	1	2	3		

- 10) It is used to identify students strength and weakness in past and present learning
 - a) Proficiency Test
 - b) Aptitude Test
 - c) Diagnostic Test
 - d) Personality Test
- 11) Geeta's height is 3 feet 6 inch, this is an example of :
 - a) Test
 - b) Measurement
 - c) Evaluation
 - d) Assessment
- 12) Frontal bone is an example of
 - a) Flat bone
 - b) Short bone
 - c) Irregular bone
 - d) Sesamoid bone
- 13) The science that deals with the structure of the human body is known as:
 - a) Physiology
 - b) Anatomy
 - c) Kinesiology
 - d) Psychology
- 14) A vertical plane divides the body into left and right sides is known as:
 - a) Frontal plane
 - b) Transverse plane
 - c) Sagittal plane
 - d) Circumduction plane
- 15) In sumo wrestling the wrestler stand knee down and with the legs wide open to:
 - a) lower the center of mass and to increase the stability.
 - b) increase the center of mass and to increase the stability.
 - c) decrease stability and gain momentum.
 - d) lower the center of mass and decrease the stability.
- 16) Rebellious behaviour due to high expectation can be seen in:
 - a) Infancy
 - b) Childhood
 - c) Adolescents
 - d) Adulthood

17) Due to systematic training the resting heart rate of a marathon player will:

- a) Remain normal
- b) Increase
- c) Become critical
- d) Decrease
- 18) In which Olympic games was the doping test first done by the IOC under the antidoping agency campaign and why? Analyze the options given below and select the correct answer:
 - a) 1960 summer olympic games, to identify the culprit
 - b) 1960 winter olympics games, to increase the standard of sports and to protect the athletes
 - c) 1968 summer olympic games, to promote fair play.
 - d) 1968 winter olympics games, to protect athletes and preserve the spirit of sport internationally.

Section B (2 marks)

- 19) Wearable gears are revolutionising the sports world today. Justify the assertion.
- 20) Describe the olympic oath.
- 21) Enlist two yogic kriyas. Write the benefit of any one of the kriyas.
- 22) State two basic differences between disability and disorder.
- 23) Define the term flexibility. Mention its types.
- 24) Covid-19 increased the psycho-social problems in adolescents. Explain

Section C (3 marks)

- 25) Explain the second element of yoga.
- 26) Distinguish between test, measurement and evaluation.
- 27) Highlight the key content of the aptitude test.
- 28) "True success comes from being in a cohesive team", consider the above statement and create the various stages of team cohesion.
- 29) Dealing with an aggressive crowd during a tournament is an art, as a psychologist how will you train your team to cope up with an aggressive crowd?
- 30) Why is systematic sports training required for an athlete?

Section D (4 marks)

31) Sports competitions provide several benefits for identifying exceptional athletes and assembling school, university, state, or even national teams to represent the different institutions. These provide opportunities to represent the country and bring honour to one's country, as well as to improve leadership skills. In light of this, the government has introduced numerous programmes to increase interest in sports and physical activity. Encourage students to consider a full-time profession in sports. "Khelo India" is the most well-known of these programmes.

- (a) When were the 'Khelo India' school games launched?
- (b) Why has it been introduced?
- (c) What are the financial benefits of this program?
- (d) where the first khelo india games were held?

Or

What was the mascot of the first Khelo India school game?

- 32) The Olympics have had a fascinating history since the beginning of time. king Theodosius banned the ancient olympics. These sports now represent the highest honour that a competitor in a sport may attain.Being head boy of the school Saket was asked to speak about the history of the Olympics and how they evolve in current form. Additionally, Saket addressed the assembly and also discussed how it has grown to be the most important "international athletic event", attracting thousands of athletes from around the world. He also spoke about how the host nation starts planning for this sporting event years in advance. The next olympic is scheduled in the capital of France.
 - a) In which city will 2024 Olympics take place?
 - b) In which year the women started participating in the modern olympics games?
 - c) When were the ancient olympics games banned?
 - d) When was the Olympic flag raised at an Olympic event for the first time?

Or

Name two values of olympism.

- 33) A teenage athlete from India, Anil, is competing on an international stage. He saw a couple of senior athletes injecting stuff with a syringe behind closed doors during the competitions. When he approached them, they explained that the substance is a performance-enhancing drug, which is often used in such tournaments, and that he should use it as well. He decided to approach his coach in order to talk about the incident which he witnessed. He learnt that however the athletes were taking the substance on the coach's personal recommendation but this is illegal and called doping. The senior mentor explained this in detail also making him remember the olympic oath.
 - a) Name any two performance enhancing substances.
 - b) Name the global organization in charge of anti-doping measures.
 - c) What do you mean by doping?
 - d) When was the international anti-doping agency formed?

Section E (5 marks)

- 34) The development of the adaptive physical education programme is well supported by CWSN. What could the main objectives of adaptive physical education be, bearing in mind the aforementioned statement?
- 35) Describe how traditional sports and regional games contribute to the overall wellness of an individual.
- 36) What are the freely moveable joints in the human body? Explain all its types with suitable examples.

37) Knowing human movement for the sake of skill development requires an understanding of axis and plane. Explain.

MARKING SCHEME Physical Education class XI (2022-23)

Note: Any other relevant answer, not given here but given by the candidates, should be awarded accordingly.

		ALLOTTED	TOTAL	
Q.NO:	KEY POINT / VALUE POINTS	MARKS	MARKS	COMPETENCY
		- minuto	MANNS	
1	a) Astro turf	1	1	Remembering
2	b) Snickometer	1	1	Analysis
3	d) Pierre De Coubertin	1	1	Remembering
4	c) Together - Tokyo	1	1	Analysis
5	c) Dhyana	1	1	Remembering
6	b) Physiotherapist	1	1	Understanding
7	c) modified as required	1	1	Understanding
8	a) Both (A) and (R) are true and (R) is the	1	1	Analycia
0	correct explanation of (A)		I	Analysis
9	d) 4-1-2-3	1	1	Analysis
10	c) Diagnostic test	1	1	Remembering
11	b) Measurement	1	1	Analysis
12	a) Flat bone	1	1	Remembering
13	b) Anatomy	1	1	Remembering
14	c) Sagittal plane	1	1	Remembering
15	a) lower the center of mass and to increase the	1	1	Analysis
15	stability	•	Ι	Analysis
16	c) Adolescents	1	1	Understanding
17	d) Decrease	1	1	Analysis
	d) 1968 winter olympics games, to protect athletes			
18	and preserve the spirit of sport	1	1	Analysis
	internationally.			
19	 Benefits of wearable technology in sports Increased Productivity. Wearables have a wide range of features that deliver increased production by 15%. Enhanced Speed. Every second counts in operation workflows Superior Task Accuracy Outstanding Wireless Readability Increased Worker Awareness. Monitoring the heart rate and other physiological data Reduces the chances of injuries (any two) 	1 x 2	2	Analysis
20	The Oath is as," In the name of all the competitors, I promise that we shall take part in these olympic games, respecting and abiding by the rules which governs them, committing ourselves to a sport without doping and without drugs, in the true spirit of sportsmanship, for the glory of sports and the honour of our teams.	2	2	Understanding

		ALLOTTED	TOTAL	
Q.NO:	KEY POINT / VALUE POINTS	MADKC	MADIZO	COMPETENCY
		маккэ	MAKKS	
	Types of krivas	0.5 x 2		
	1. Neti Kriya			
	2. Dhauti Kriva			
	3. Nauli Kriva		-	
21	4. Basti Kriva		2	Remembering
	5. Kapalbhati Kriya			
	6. Tratak Kriva (Any two from the above)			
	Benefits of any one krivas	1		
	Disability:			
	1. Physical impairment, activity limitations, and			
	participation restriction.			
	2. Example: Physical disability			
22		1+1	2	Analysis
	Disorder:			, and yold
	1. Disorder is an illness that disrupts normal			
	physical and mental functions.			
	2. Example: Behaviour disorders			
	Flexibility:			
	flexibility is the range of movement from the particular			
	ioint.	1		
23)		2	Remembering
	Types of flexibility			5
	1. Passive	0.5 x 2		
	2. Active			
	Impact Of Covid-19 on Adolescents:			
	1. Poor Relationship With Parents			
	2. Development Of Stress			
24	3. Aggressive Behaviour	2	2	Understanding
	4. Low Self-Esteem			•
	5. Most Of The Time Lonely			
	6. Impatient			
	NIYAMA: Niyama are related to individual's body			
	and senses. Niyamas are also ethical practices as			
	to yamas. There are five niyamas such as:			
	a. Saucha: Saucha means purity. We must be clean			
	physically as well as mentally.			
	b. Santosh: Santosh means developing a feeling of			
25	satisfaction in all situations of life.			
	c. Tapa: To endure the difficulties, obstacles and	2	2	Understanding
	complex situations easily in the way of attaining the	3	3	Understanding
	objectives and to go ahead continuously towards			
	the goal is called tapa.			
	d. Swadhyaya: Swadhyaya means self-assessment.			
	Who am I? What should I do? What am I doing?			
	And what is the aim of my life?			
	e. Ishwara Pranidhana: To dedicate all the deeds to			
	God is called Iswara Pranidhana.			

		ALLOTTED	TOTAL	
Q.NO:	KEY POINT / VALUE POINTS	MARKS	MVDKC	COMPETENCY
			MARKS	
	explain any three			
	Test: Test refers to any specific instrument, procedure or technique used by administrator to elicit from the test			
26	taker. For e.g.: AAPHERD youth fitness test, Harvard step test. Measurement: It refers to the process of administrating a test to obtain a quantitative data. It can be said that measurement aids evaluation process in which various tools and technique are used in the collection of data. Evaluation Evaluation is a mean of organized assessment done to	1 x 3	3	Analysis
	appraise the value of something. The most important aspect of evaluation is to determine the applicability, capability and achievement of the said objective, its efficiency, effectiveness, impact, and sustainability.			
27	 key content of aptitude test 1. Numerical reasoning 2. Verbal reasoning 3. Speed 4. Accuracy ability and more 	3	3	Application
28	 Various stages of team cohesion forming: Establishing clear objective storming: Resolve conflict as it occurs norming: Continue to build team building activities performing: Celebrate the victories 	3	3	Application
29	 Role of psychologist in help the team to deal with aggressive crowd: Keeping the Smile on their faces When Dealing With Crowd No Negative Gestures Towards The Crowd. Building Confidence To Handle Negative Remarks Training On Development Of Patiences Focus On Performance Be Assertive Counseling And meditation Accept The Result In Positive Way Team Building Exercise 	3	3	Application
30	 Importance Of Systematic Sports Training 1. To Achieve High Performance Of A Player 2. To Compare A Performance 3. It Builds Motivation And Confidence 4. To Provide A Variation Of Training As Per Individual Level 	3	3	Application

O NO.	VEV DOINT / VALUE DOINTS	ALLOTTED	TOTAL	COMPETENCY
Q.NO:	REFFORM / VALUE FORMIS	MARKS	MARKS	COMPETENCE
	5. To Prevent Sports Injuries			
	6. To known the Psychological State Of A Player			
	7. To increase the Competitive Longevity			
	8. Development Of Physical Fitness			
	9. Acquisition Of Sports Skills			
	b) To revive sports culture from the grass root			
	level	1		
31	 c) The selected athlete gets 5 lakhs per annum 	1	4	Remembering
	for 8 years.	1	-	rtemembering
	d) New Delhi	1		
	Java the blackbuck and Vijav the tiger			
	a) Paris			
	b) 1900	1		
32	c) 393 A.D	1	4	Remembering
	d) 1920	1		0
	Excellence Friendship And Respect	1		
	a) stimulants, human growth hormone, peptide			
	hormone, anabolic steroid, beta blockers, beta-			
	2 agonist, blockers, glucocorticosteroid,			
	narotices cannabinoid. (ANY TWO)	½ X 2		
	b) WORLD ANTI DOPING AGENCY (WADA)	1		
33	c) According to International Olympic	1	4	Understanding
	<u>committee</u> , "Doping is the use of any method	1		
	or substance that might harm the athlete, in a			
	quest to gain an unfair advantage, over his/her			
	fellow competition."			
	d) 10th November 1999			
	Delectives of adaptive physical education			
	2. The programmes must be based on interests of			
	2. The programmes must be based on interests of students			
	3 Equipments should be according to the needs			
34	4 Specific environment should be provided	1 x 5	5	Understanding
•••	5. A variety of different instructional strategies should		•	Gindorotanianig
	be used			
	6. Rules should be modified according to the needs of			
	students			
	(Any five with explanation)			
	Importance of traditional and regional sports for the			
35	promotion of wellness:			
	1. Traditional sports promote mutual respect for	_	_	
	different cultures of various societies.	5	5	Understanding
	2. I raditional games give benefits to physical health,			
	i.e., increase neart rate, oxygen consumption,			
	and blood pressure.			

		ALLOTTED	TOTAL	
Q.NO:	KEY POINT / VALUE POINTS	MARKS	MARKS	COMPETENCY
			Mining	
	3. Most traditional games require agility and			
	movement such as swinging of arms and jumping.			
	4. It helps children to think, work on strategies and			
	tactics.			
	5. These games help in sharpening critical thinking,			
	improving ability to analyze situations and make			
	effective decisions.			
	6. Team games like kabaddi and kho-kho require			
	kids to come up with tactics to defeat their			
	opponent, in turn helping them to strategize and			
	resolve their differences, which in turn promote			
	7. These games create harmony between the inner			
	Sell and the outside world.			
	freely movable and are also called synovial joints	1		
	These joints include most of the joints in the body			
	These freely moveable joints are further classified in			
	six categories:			
	a) Gliding joints : These joints permit gliding			
	movements only, as in the joints between tarsal			
	bones of the ankle.			
	b) Hinge joints: These joints permit angular			
	movement in one direction, like a door on its			
	hinges. The movement of these joints are called			
	flexion and extension e.g. humerus and ulna, in			
	the knee and ankle joints, and in the joints of		_	
36	phalanges.	4	5	Remembering
	c) Condyloid joint: These joints allow an angular			
	Movementa of these joints include flexion			
	extension adduction abduction and			
	circumduction, but no rotation			
	d) Saddle joints: These joints permit a great			
	freedom of movements' e.g. joint of thumb.			
	e) Ball and socket joint: These joints have an			
	angular movement in all directions and a pivot			
	movement. Shoulder joint and hip joint are the			
	example of ball and socket joint.			
	f) Pivot joint: These are joints with a rotary			
	movement in one axis.(Any 4)			
	Knowing the different body axis and planes can be			
	usetul			
37	In designing your workout program	5	5	Application
	 Surengulering your body in all directions. Establishing and maintaining a halanced fitness. 			
	nlan			
		1	1	1

Q.NO:	KEY POINT / VALUE POINTS	ALLOTTED MARKS	TOTAL MARKS	COMPETENCY
	4. Promotes muscular balance.			
	5. Helps in understanding biomechanical analysis.			
	6. Helps in customizing sports equipment.			
	7. It helps in reducing the chances of sports injuries			
	8. Improvement in technique			
	9. Helps in research work.			
	10. Create confidence in players			

Class: XI SESSION : 2022-23 DAV SAMPLE QUESTION PAPER (THEORY) SUBJECT: PHYSICS (042)

Maximum Marks: 70 Marks

Time Allowed: 3 hours

General Instructions:

(1) There are 35 questions in all. All questions are compulsory.

(2) This question paper has five sections: Section A, Section B, Section C, Section D and Section E. All the sections are compulsory.

(3) Section A contains eighteen MCQ of 1 mark each, Section B contains seven questions of two marks each, Section C contains five questions of three marks each, section D contains three long questions of five marks each and Section E contains two case study based questions of 4 marks each.

(4) There is no overall choice. However, an internal choice has been provided in section B, C, D and E. You have to attempt only one of the choices in such questions.

(5) Use of calculators is not allowed.

(6) **i**,**j** and **k** represent unit vectors along the x,y and z axis respectively.

SECTION - A

Q1. The number of significant figures in 0.0020 kg is

- a) 1
- b) 2
- c) 3
- d) 4

Q 2. Four x-t graphs for particles moving along x- axis are shown in the figure. For which one average velocity over the time interval (0,T) can vanish for a suitably chosen T?



a) i) b) ii)
- c) iii)
- d) iv)

Q 3 The angle between vector $\mathbf{A} = (\mathbf{i} + \mathbf{j})$ and vector $\mathbf{B} = (\mathbf{i} - \mathbf{j})$ is

- a) 30°
- b) 45°
- c) 90°
- d) 180°

.Q 4 Vikas is driving a car of mass m along a circular path of radius R . The coefficient of static friction between the path and tyres of the car is μs . The

maximum speed with which he can drive the car without slipping is (g is acceleration due to gravity) $% \left({\left[{{{\rm{sc}}} \right]_{{\rm{sc}}}} \right)_{{\rm{sc}}} \right)$

a)
$$\sqrt{(\mu s \ g/R)}$$

b) $\sqrt{(\mu s \ /Rg)}$
c) $\sqrt{(\mu s \ gR)}$
d) $\sqrt{(Rg/\mu s)}$

Q 5 The maximum heights reached by a ball projected with speed u are h_1 and h_2 when it makes an angle of 30° and 60° with the horizontal respectively. The ratio $(\frac{h_1}{h_2})$ is

a) $\frac{1}{3}$ b) $\frac{1}{2}$ c) $\frac{1}{4}$ d) $\frac{1}{8}$

Q 6 Three blocks A (3 kg), B (2 kg) and C (1 kg) are placed in contact with each other on a smooth horizontal surface as shown in figure. A force of 12 N is applied on block A .The net force acting on block B is



- a) 4 N
- b) 6 N
- c) 8 N
- d) 12 N

Q 7 A particle of mass m is moving in a vertical circle of radius R . Let K₁ and K₂ be the minimum kinetic energies of the particle at the lowest point and the highest point of the circle respectively. The ratio of K₁ and K₂ , ($\frac{K_1}{K_2}$) is

- a) $\frac{1}{5}$ b) $\frac{2}{5}$ c) 2
- d) 5

Q.8 A ball of mass 100 g is thrown vertically upward from x=0, y=0 with energy of 20 J. It reaches the height of 20 m and falls back into a pit of 20 m depth. After striking the bottom of the pit, the ball comes to rest. The total energy of the ball at its highest point and at the bottom of the pit are respectively (g = 10 m/s²)

- a) 20J, 0J
- b) 20J, 20J
- c) 20J, -20J
- d) 0J, -20J

Q9. Beats are produced by two waves

 $Y_1 = a \sin (2000 \pi t)$

Y₂ = a sin (2008 πt)

The number of beats heard per second is

- a) zero b) one
- c) four d) eight

Q10. The radius of one arm of a hydraulic lift is four times the radius of the other arm. What force should be applied on the narrow arm to lift a body of 200 kg?

a) 100 N	b) 125 N
c) 115 N	d) 120 N

Q11. The total energy of a particle executing SHM (x = a sin ω t) is

a) independent of x b) proportional to x^2 c) proportional to x d) proportional to \sqrt{x}

Q12. A thermodynamic system is taken through a cycle ABCD as shown in the figure. Heat rejected by the gas during the cycle is



- a) 2 PV
- b) 4 PV
- c) $\frac{1}{2}$ PV
- d) PV

Q13. A pressure cooker reduces cooking time for food because

a) heat is more evenly distributed in the cooking vessel.

b) the boiling point of water involved in cooking is increased.

c) cooking involves mainly chemical changes helped by rise in temperature.

d) the boiling point of water involved in cooking is decreased.

Q14. Oxygen and hydrogen gases are at the same temperature T. The average kinetic energy of an oxygen molecule will be —----- the average kinetic energy of a hydrogen molecule.

a) 16 times b) 4 times c) Equal to d) $\frac{1}{4}$ times

Q15. V versus T curves of an ideal gas for three pressures P_1 , P_2 and P_3 are shown in figure. Which of the following relations between P_1 , P_2 and P_3 is correct?



a) P1>P2>P3	b) P1 <p2<p3< th=""></p2<p3<>
c) P ₃ >P ₁ >P ₂	d) P ₂ >P ₁ >P ₃

Q16 to 18 are Assertion Reason Questions

Two statements are given-one labelled Assertion (A) and the other labelled Reason (R). Select the correct answer to these questions from the codes (a), (b), (c) and (d) as given below:

a) Both A and R are true and R is the correct explanation of A.

- b Both A and R are true and R is NOT the correct explanation of A.
- c) A is true but R is false.
- d) A is false and R is also false.

Q16. Assertion (A): Work done by a conservative force around a closed path is zero.

Reason (R): Work done by a conservative force depends only on initial position and final position.

Q17. Assertion (A): In a pure translational motion all particles of the body move with the same velocity at any instant of time.

Reason (R): In a rotating rigid body all particles have the same angular velocity at any instant of time.

Q18. Assertion (A) : Heat transfer always involves temperature difference between two systems or parts of the same system.

Reason (R): Any energy transfer that does not involve temperature difference in some way is not heat.

SECTION - B

Q19. Consider the following equation

$$X = \frac{E}{(b+t)}$$

where E denotes energy and t time. Find the dimensions of X and b. Also identify X.

Q20. Explain the following statements for objects moving along a straight line.

a)The zero velocity of a particle at any instant does not necessarily imply zero acceleration at that instant.

b)The average speed of an object is greater than or equal to the magnitude of the average velocity over a given time interval.

Q21. A ball is thrown vertically upward with a speed of 30 m/s. What is its distance and magnitude of displacement after 4s? ($g = 10 \text{ m/s}^2$)

OR

A particle starts from the origin at t = 0 s with the velocity of 4 j m/s and moves in x-y plane with a constant acceleration of (2i + 6j) m/s². At what time is the x-coordinate of the particle 32m?

Q22 An object is thrown vertically upward with speed v from the surface of earth. Find the minimum value of v for which the object will not return to earth.

Q23.A body of mass 100 g moves along a straight line and experiences a frictional force given by

F $_r = -\frac{1}{x}$, (x is in metre and F is in newton) between x₁ = 1.0 m to x₂ = 2.0 m. Find the change in kinetic energy of the body.

Q24. The velocity of a small ball of mass M and density d₁ when dropped in a container filled with glycerine becomes constant after sometime. The density of glycerine is d₂. Find the expression of the viscous force acting on the ball.

OR A spinning ball deviates from its parabolic trajectory as it moves through air. Explain.

Q25. Two wires of length 1 m each and diameter 0.2 cm, one made of steel and other made of copper are loaded as shown in figure. Calculate the ratio of the elongation of the steel and copper wires. Young's modulus of steel = 200 × 10^{9} N/m², Young's modulus of copper= 120×10^{9} N/m².



SECTION - C

Q26.Three particles of masses m, 2m and m are kept at the vertices of an equilateral triangle of side L. Calculate the potential energy of the system. OR

A satellite of mass m is moving in a circular orbit of radius R. The satellite is made to transfer in another orbit of radius (3R/4). Find the change in its kinetic energy and its potential energy.

Q27. An object of mass 200 g changes its position from rest at $\mathbf{r}_1 = (\mathbf{i} + 2\mathbf{j} + \mathbf{k})$ m to $\mathbf{r}_2 = (2\mathbf{i} + 5\mathbf{j} + 3\mathbf{k})$ m under the action of a force $\mathbf{F} = (2\mathbf{i} + 2\mathbf{j} - \mathbf{k})$ N. Calculate work done by the force and the final velocity of the object.

Q28.The displacement of a particle executing SHM is given by the equation $x = a \sin \omega t$. The following figure shows three plots A,B and C of the particle. Identify x- t, v - t, and a - t plots and give reason. Mention the phase difference between displacement and acceleration.



Q29. a) State first law of thermodynamics. Write its mathematical form.

b) show that

i) in a cyclic process, the total heat absorbed by the system is equal to the work done by the system.

ii) in an isochoric process, the entire heat given to the system goes in increasing the temperature of the system

OR

Using kinetic theory of gases, prove that the pressure exerted on the wall of a container by an ideal gas is directly proportional to the square of the root mean square speed of the molecules of the gas.

Q30. Three identical rods A, B and C of equal lengths and equal diameters are joined as shown in the figure. Their thermal conductivities are 2K, K and 2K respectively. Calculate the temperatures at the junction of A and B (T_1) and at the junction of B and C (T_2).



SECTION - D

Q31. a) A ball is projected in the x-y plane from position (0,0) at t = 0 with speed v making an angle θ with x axis under earth's gravity. Derive an expression for its trajectory. Also write the nature of the trajectory. b) A ball is projected at time t = 0 from point x = 0, y = 0 in x- y plane with velocity (**U** = Ux**i** + Uy**j**) m/s. Show that the angle θ (t) the ball makes with x axis at any time t is given by

$$\Theta(t) = \tan^{-1} \frac{(Uy - gt)}{Ux}$$

OR

- a) An object is moving along a circular path of radius r with uniform speed
 v. Derive an expression for centripetal acceleration of the object.
- b) A small steel ball trapped in a circular groove of radius 25 cm moves along the groove steadily and completes $\frac{20}{\pi}$ revolutions in 50 seconds. Calculate angular speed and centripetal acceleration of the ball.

Q32. a) i) State law of conservation of angular momentum.

ii) Establish the relation between angular momentum (L) and angular velocity (ω) for a body of moment of inertia I.

b) Two bodies, a ring of radius R and a solid cylinder of radius $(\frac{R}{2})$ start rolling down from rest from the top of an inclined plane at the same time. Which of the bodies reaches the ground with maximum velocity?

OR

- a) i) Three particles of masses m₁, m₂ and m₃ are lying at points (x₁, y₁), (x₂, y₂) and (x₃, y₃) respectively. Determine centre of mass of the system. If the masses are equal, what is the centre of mass of the system?
 - ii) Consider a hollow sphere of radius R. It is now half filled with water. Explain qualitatively how the centre of mass shifts?
- b) Two spheres of mass $m_1 = 10$ kg and $m_2 = 20$ kg have position vectors

 $\mathbf{r}_1 = 2t\mathbf{i} + t^2\mathbf{j} + 2\mathbf{k}$, $\mathbf{r}_2 = \mathbf{i} + 2t^2\mathbf{j} + 5t\mathbf{k}$ respectively, where \mathbf{r}_1 and \mathbf{r}_2 are in metres, time is in second. Calculate velocity of the centre of mass of this two particle system.

Q33. A transverse wave moving in a string along the positive x axis is described by the equation

 $y(x,t) = A \sin(\omega t - kx)$

The wave gets reflected by a rigid boundary. Then incident and the reflected wave gets superimposed.

- a) Show that the resultant wave formed does not travel on either side of the string.
- b) Prove that the distance between any two consecutive antinodes is $\frac{\lambda}{2}$.
- c) An organ pipe open at one end is vibrating in first overtone (third harmonic) and is in resonance with another pipe open at both ends and vibrating in third harmonic. Find the ratio of the lengths of the two pipes.

OR

Two identical springs of spring constant K are attached to a block of mass M and two fixed supports as shown in figure.



a) Show that when the mass is displaced from its equilibrium position on either side, it executes SHM. Find the frequency of oscillations.

b) The displacement of a particle varies according to the relation

 $x = 4 (\cos \pi t + \sin \pi t)$

where x is in metres and t is in seconds.

What is the amplitude of the particle?

SECTION - E



Friction plays an important role in many daily- life situations. Consider the case of a block being held against a wall. It would be impossible to hold the block, if there were no friction between the wall and the block, even if we push the block against the wall with a larger force. Now do the physics of the following case.

A block of mass (m) is held against a vertical wall by pressing it with force (F) as shown in the figure. The coefficient of static friction and kinetic friction

between the block and the wall are μs and μk respectively and acceleration

due to gravity is g.

a)What is the normal force acting on the block, if the block is not sliding? b)What is the value of force of friction acting on the block when the block is not sliding? Give reason.

c)Explain the condition under which the given block does not slide down.

OR

c) Find the magnitude of the net force exerted on the block by the wall, when the block is stationary.

Q35. The property of surface tension of liquids is exhibited in many situations, like capillary action, formation of spherical drops and bubbles, etc.

Consider a liquid of density 0.8×10³ kg/ m³ and surface tension 2.8×10⁻² N/m.

- a) A capillary tube of radius 0.1mm is dipped in a vessel filled with the above liquid. The angle of contact between the liquid and the surface of the tube is zero. Find out the height up to which the liquid will rise in the capillary.
- b) If some detergent is added to the above liquid and the same capillary is dipped in the solution, what change will you observe in the height?
- c) A drop of the above liquid of diameter 4mm breaks into 1000 droplets of equal size. Calculate the resultant change in its surface energy.

OR

c) Calculate the work done in blowing a bubble of the given liquid from diameter 4mm to 6mm.

Class: XI SESSION : 2022-2023 MARKING SCHEME PHYSICS DAV SAMPLE QUESTION PAPER (THEORY)

Q. No. Value Marks points **SECTION - A** b b с С а а d С С b а а b С С а b

18	b	1	1
	SECTION - B		
19	b = t = [T]	1/2 + 1/2	
	$X = \frac{\omega}{T} = ML^2T^{-3}$	1⁄2	
	X = Power	1/2	2
20	(i) Consider, for example, a ball thrown upward under gravity. At its highest point the velocity becomes zero but acceleration remains the same that is, acceleration due to gravity g.	1	
	(ii) The magnitude of displacement of an object is always equal to or less than the distance travelled by the object in given time interval. Therefor the magnitude of average velocity is equal to or less than the average speed.	1	2
21	Distance = 50m	1	
	Magnitude of displacement = 40 m	1	2
	OR	17	
	r = u t + (1/2) a t ²	1/2	
	r = 4 i t + (1/2) (2 i + 6 j) t ²	17	
	$x i + y j = 4 i t + (1/2) (2 i + 6 j) t^{2}$	1/2	
	$x = 4 t + t^2 = 36$	1/2	
	t= -8s, t = 4s		
		1/2	2
22	NCERT page 193		
	Equation (8.29)	1⁄2	
	Equation (8.30)	1⁄2	
	Equation (8.31)	1/2	
		1/2	2

	Equation (8.32)		
23	dW = F . dx		
		1/2	
	dVV = (-1/x) dx	17	
	integrating it from $x = 1m$ to $x = 2m$, we get the work done by frictional	/2	
	force.	1/2	
		1/2	2
	$W = \int_{1}^{1} 2(-1/x) dx$	/2	-
	= - ln 2 = - 0.693 J		
	F O	1/	
24	$F = 6\pi\eta rv - eq. 1$ $v = \frac{2r^2 (d_1 - d_2)g}{d_1 - d_2}$	1/2 1/2	
	Putting in eq. 1		
	$F = 6\pi\eta r \; (\frac{2r^2 \; (d_1 - d_2)g}{9\eta})$	1/2	
	$F = \frac{4\pi r^3 (d_1 - d_2)g}{3}$	/2	
	$= V ((d_1 - d_2)g = M \frac{(d_1 - d_2)g}{d_1}$	1/2	2
	$= M (1 - \frac{d_2}{d_1})g$		
	OR	1/2	
	It is based on Bernouilli's Principle Explanation NCERT pg. 207	1 ¼	2
	Diagram	,2	-
25	Length $I_1 = I_2 = 1m$		
	Diameter $d_1 = d_2 = 0.2$ cm $Y = \frac{4mgl}{2}$	1/2	
	As I and d are same		
	$\triangle l \alpha m/Y$	1/2	
	$\frac{1}{\Delta lc} = \frac{mc}{mc} \times \frac{Y_s}{Y_s}$	$\frac{1}{2}$	0
	$=\frac{1}{6} \times \frac{120 \times 10^{9}}{200 \times 10^{9}} = 1 : 1$	/2	2
	SECTION - C		
26			
	Diagram	1/2	

	Gravitational potential energy between mass m_1 and mass m_2 = -		
	Gm ₁ m ₂ / I Gravitational potential energy between mass m and	1/2	
	mass m = - G mm/l Gravitational potential energy between mass	1⁄2	
	m and mass 2m = - G 2mm/l Gravitational potential energy	1/2	
	between mass m and mass 2m = - G2 mm/l Total Gravitational	1/2	
	potential energy between mass m and mass 2m =	1/2	
	- 5G mm/l		3
	OR		
	For redius Dr		
	For facius R.		
	Potential energy = -GMm/R		
	Kinetic energy = GMm/2R	1/2	
		1/2	
	For radius (3R/4):	/-	
	Potential energy = -4GMm/3R		
		1/2	
	Kinetic energy = 2GMm/3R	1/2	
	Change in potential energy = -GMm/3R	1⁄2	
	Change in kinetic energy = GMm/6R	1⁄2	3
27	W = F S	1/2	
	$S = r_2 - r_1$		
	S = i + 3 j + 2 k	1/2	
	W= (2 i + 2 j - k). (i + 3 j + 2 k)		

	= 6 J		
	So change in kinetic energy= work done	1/2	
	= 6 J $\frac{1}{2} mv^2 = 6$	1/2	
	$v = \sqrt{60}$ m/s	1/2	
		1/2	3
28	$x = a \sin \omega t$ eq.1		
	Differentiating eq. 1 w.r.t time $\frac{dx}{dx} = \frac{dx}{dx} = \frac{dx}{d$		
	$\frac{dt}{dt} = \omega a \cos \omega t \qquad \text{eq. } 2$	1/2	
	Differentiating eq. 2 w.r.t. time		
	$\frac{dv}{dt} = -\omega^2 a \sin \omega t$	1/2	
	acc. = $-\omega^2 a \sin \omega t$ eq. 3	1/2	
	Plot A represents v-t graph	1/2 1/2	
	Plot C represents a-t graph	/2	
		1/2	3
	The phase between displacement and acceleration is π		
29	a) Correct Statement	1/2	
	NCERT pg. 202 AQ = AU + AW	1/2	
		/2	
	b) i) In cyclic process	17	
	$U = \text{constant}$, $\Delta U = U$ From first law of Thermodynamics	/2	
	$\Delta Q = \Delta W$	1/2	
	ii) In isoshoric process		
	V = constant	1/2	
	$\Delta V = 0$		
	Work Done = 0 From first low $AO = AU$		
	As heat is given to the system $\Delta 0 = +ve$		
	then $\Delta U = +ve$	17	•
	Increase in internal energy means increase in temperature.	1/2	3
	OR		
	Refer NCERT pg. 323	1	
	calculation of total momentum transferred to the wall by molecules calculation of Pressure exerted on the wall	1	
	calculation of Average Pressure	1	3

30	Under steady condition	1/	
	$\frac{Q}{t} = \frac{Q}{t} = \frac{Q}{t} = \frac{Q}{t}$	/2	
	$\frac{2kA(100 - T_1)}{d} = \frac{kAT_1 - T_2}{d} = \frac{2kA(T_2 - 0)}{d}$	1/2	
	$200 - 2T_1 = T_1 - T_2 = 2 T_2$	1	
	$200 = 8 T_2$ $T_2 = 25^{\circ}C$	1/2	
	$T_1 = 75^{\circ}C$	1/2	3
	SECTION - D		
31	(a) NCERT PAGE (75)		
	Diagram figure number (4.17)	1/2	
	Equation (4.36)	1/2	
	Equation (4.37)	1/2	
	Equation (4.38)	1/2	
	eliminating the time between the expression for x and y in above equation,	1/2	
	we get the equation of the trajectory:	72	
	Equation (4.40)	1/2	
	(b) Diagram	1/2	
	tan _θ = Vy/Vx	1/2	
	$\tan_{\theta} = (Vy - gt)/(Ux)$	1/2	
	θ = tan -1(Vy - g t)/(Ux)	1/2	(3+2=5)
	OR		
	(a) Diagram from ncert page 80	1/2+1/2	
	$ \mathbf{a} = \lim_{l \to \infty} \frac{I \Delta v I}{I}$	1/2	
	$\Delta t \to 0 \ I \ \Delta t \ I$	1/2	

	$\frac{1 \Delta V I}{L + L} = \frac{1 \Delta V I}{L + L}$		
		1/2	
	$ \mathbf{a} = \frac{v}{R} \lim_{\Delta t \to 0} \frac{I\Delta r I}{I \Delta t I}$		
	$-\mathcal{V}^2$ and is directed towards the control	1/2	
	$c = \frac{1}{R}$ and is directed towards the centre.		
	${\scriptstyle {\scriptstyle \Delta} {\cal V}}$ and ${\scriptstyle {\scriptstyle {\scriptstyle \Delta}} {\cal T}}$ represent vector quantities		
		1/2	
	$^{(0)}\omega = 2\pi\nu$		
	$\omega = 4/5$ rad/s	1⁄2	
	-	17	
	centripetal acceleration = $\omega^{2.S}$	1/2	
	= 0.16 m/s ₂	1/2	(3+2=5)
		/-	(* _ *)
32	(a) (i) Statement	1/2	
	Diagram NCERT pg. 153 Fig. 7.17(b)	1/2	
	$I = (OC \times mv) + (CP \times mv)$	$\frac{1}{2}$	
	$\mathbf{L}_{i} = \sum_{\mathbf{z}} \mathbf{OC}_{i} + \mathbf{m}_{i} \mathbf{v}_{i}$	72	
	$L_z = \lim_{z \to ab} \mathbf{k}$	1/2	
	(b) $V^2 = \frac{2g_1}{1 + \frac{k^2}{B^2}}$	1/2	
	For ring $k = R$	1/2	
	Therefore $V_{\text{ring}} = \sqrt{gh}$	1/	
	$V_{\text{evinder}} = \frac{4}{\sqrt{ah}}$	/2	
	Therefore the velocity of the solid cylinder is more than the velocity of the	1/2	
	ring.	1⁄2	
	OR		(3+2=5)
	a) i) X = $\frac{m_1 + m_2 + m_3 + m_3}{m_1 + m_2 + m_3}$		

	$Y = \frac{m_1 y_1 + m_2 y_2 + m_3 y_3}{m_1 + m_2 + m_3}$ $X = \frac{x_1 + x_2 + x_3}{3}$ $Y = \frac{y_1 + y_2 + y_3}{3}$ ii) Centre of mass of a hollow sphere lies at its geometrical centre. When it is half filled with water, the centre of mass shifts below the geometrical centre because of the mass of the water filled. b) $\frac{dr_1}{dt} = v_1 = 2i + 2tj$	1/2 1/2 1/2 1/2 1/2 1/2 1/2	
	$\frac{dr_2}{dt} = v_2 = 4tj + 5k$ $V \text{ cm} = \frac{m_1 v_1 + m_2 v_2}{m_1 + m_2}$ $V \text{ cm} = \left(\frac{2}{3}i + \frac{10}{3}tj + \frac{10}{3}k\right) \text{ m/s}$	1/2 1 1/2	(3+2=5)
33	a) Let the two waves be represented as Incident wave $y_1(x,t) = A \sin(\omega t - kx)$ moving along +ve x axis Reflected wave $y_2(x,t) = -A \sin(\omega t + kx)$ moving along -ve x axis and is reflected from rigid support By the principle of superposition, the resultant wave is given by $y = y_1 + y_2$ = A[sin ($\omega t - kx$) - sin ($\omega_6 + kx$)] Using the principle of superposition	1/2 1/2	
	Using trigonometric identity sin(A+B) - sin(A-B) = 2 cosA sinB $y = -2A cos \omega_6 sin kx$ This is not the equation of the travelling wave. Here amplitude varies from	1/2 1/2	
	point to point. This is an equation of a standing wave which is neither moving to the right nor to the left. b) For the positions of antinodes, (where the amplitude is maximum) ISinkxI = 1 $Kx = (n + \frac{1}{2}) \pi$ $x = \frac{n\pi}{k}$ Since $k = \frac{2\pi}{\lambda}$	72 1/2	
	$x = (n + \frac{1}{2})\frac{\lambda}{2}$ $n = 0, 1, 2, 3$ Clearly the distance between two consecutive antinodes is $\frac{\lambda}{2}$ c) For closed organ pipe	1/2	
	First overtone or Third harmonic $v_1 = \frac{3V}{4l_1}$ For open organ pipe	1/2	
	Third harmonic $v_2 = \frac{3V}{2l_2}$	1/2	
	$v_1 = v_2$	1/2	

$\frac{3V}{4l_1} = \frac{3V}{2l_2}$ $4l_1 = 2l_2$ $\frac{l_1}{l_2} = \frac{2}{4} = \frac{1}{2}$	1/2	(2+1+2 = 5)
OR a)Let the mass be displaced by a small distance x to the right side of the equilibrium position.		
E E	1/2	
The forces acting on the mass are $F_1 = -kx$ directed towards the mean position $F_2 = -kx$ directed towards the mean position The net force F, acting on the mass is given by F = -2kx From Newton's second law, $F = ma$ $a = \frac{F}{m} = \frac{-2kx}{m}$ Comparing with standard SHM eq. $a = -\omega^2 x$	1/2 1/2	
$\omega = \sqrt{\frac{2k}{m}}$ $2\pi\nu = \sqrt{\frac{2k}{m}}$ $\omega = \frac{1}{\sqrt{\frac{2k}{m}}}$	1/2 1/2	
	1/2	
$= 4\sqrt{2} (\sin \pi_6 \cos \frac{\pi}{4} + \cos \pi_6 \sin \frac{\pi}{4})$ = $4\sqrt{2} \sin (\pi_6 + \frac{\pi}{4})$ On comparing it with x = A sin($\omega_6 + \phi$) A = $4\sqrt{2}$ m	1⁄2	
	1/2	(3+2 =5)
SECTION - E		

34	a)Using Newton's second law of motion along x axis, N - F = 0 Thjerefore N = F	1/2 1/2	
	b)Using Newton's second law of motion along y axis, f - mg =0 Therefore f = mg	1/2 1/2	
	c) Maximum frictional force between the wall and the block = μ_s N = μ_s F	1	
	The block will not slide if mg is less than the $\mu_{-s}F$.	1	
	OR c) The wall exerts two forces on the block : 1) The normal force N = F 2) The force of friction f = mg, when the block is not sliding. These forces are perpendicular to each other. Therefore the magnitude of the net force = $\sqrt{F^2 + (mg)^2}$	1	(1+1+2= 4)
35	Given $\rho = 0.8 \times 10^3 \text{ Kg/m}^3$ R = 0.1mm = 0.1 × 10 ⁻³ m T = 2.8 × 10 ⁻² N/m g = 10 m/s ² $\theta = 0^0$		
	a) $h = \frac{2T\cos\theta}{R\rho g}$ = $\frac{2 \times 2.8 \times 10^{-2} \times \cos 0}{0.1 \times 10^{-3} \times 0.8 \times 10^{3} \times 10}$	1/2	
	$= 7 \times 10^{-2} \text{ m}$	1/2	
	b) As on adding impurity, surface Tension decreases and h α T Therefore the height of the liquid will decrease.	1	
	c) Volume of 1000 droplets = Volume of a big drop $1000 \frac{4}{3}\pi r^3 = \frac{4}{3}\pi R^3$	1/2	
	10r = K $r = \frac{R}{10} = \frac{D}{20}$ Change in surface energy = increase in surface area × surface Tension	1/2	
	$[1000 \times 4\pi \left(\frac{D}{20}\right)^2 - 4\pi \left(\frac{D}{2}\right)^2] \times T$	1/2	
	$= \pi D^{-1} (\frac{1}{100} - 1) \times 1$ = 1.26 × 10 ⁻⁵ J	1/2	
	OR		

	c) W = increase in surface area × T = $2 \times 4\pi (r_2^2 - r_1^2) T$ = $8\pi (20 \times 10^{-6}) \times 2.8 \times 10^{-2}$ = $448 \pi \times 10^{-8} J$	¹ / ₂ 1/ ₂ 1	(1+1+2 = 4)
--	--	---	----------------