## General Instructions:

1. This question paper comprises two Parts - A and B. There are 32 questions in the question paper. All questions are compulsory.
2. Part $\mathbf{A}$ is compulsory for all candidates.
3. Part B has two options i.e. (1) Analysis of Financial Statements and (2) Computerized Accounting. You have to attempt only one of the given options.
4. Question nos. $\mathbf{1}$ to $\mathbf{1 3}$ and $\mathbf{2 3}$ to $\mathbf{2 9}$ are very short answer type questions carrying 1 mark each.
5. Question nos. 14 and 30 are short answer type-I questions carrying 3 marks each.
6. Question nos. $\mathbf{1 5}$ to $\mathbf{1 8}$ and $\mathbf{3 1}$ are short answer type-ll questions carrying 4 marks each.
7. Question nos. 19, 20 and 32 are long answer type-I questions carrying 6 marks each.
8. Question nos. 21 and 22 are long answer type-ll questions carrying 8 marks each.
9. There is no overall choice. However, an internal choice has been provided in 2 questions of three marks, $\mathbf{2}$ questions of four marks and $\mathbf{2}$ questions of eight marks.

|  | Part- A <br> (Accounting for Not for Profit organizations, Partnership firms and Companies) |  |
| :---: | :---: | :---: |
| 1 | Which of the following items is not dealt through Profit and Loss Appropriation Account? <br> a. Interest on Partner's Loan <br> b. Partner's Salary <br> c. Interest on Partner's Capital <br> d. Partner's Commission | 1 |
| 2 | For which of the following situations, the old profit sharing ratio of partners is used at the time of admission of a new partner? <br> a. When new partner brings only a part of his share of goodwill. <br> b. When new partner is not able to bring his share of goodwill. <br> c. When, at the time of admission, goodwill already appears in the balance sheet. <br> d. When new partner brings his share of goodwill in cash. | 1 |
| 3 | Reserve Capital is not a part of: <br> (a) Authorized Capital <br> (b) Subscribed capital <br> (c) Unsubscribed capital <br> (d) Issued Share Capital | 1 |
| 4 | Sports Star Charitable club has income of `16,000 and 'deficit' debited to capital fund of` 4,300 for the year 201920, then expenditure for the year 2019-20 is: <br> (A) `11,700 \\ (B)` 4,300 <br> (C) `20,300 \\ (D) None of these \end{tabular} & 1 \\ \hline 5 & At the time of dissolution of partnership firm, journal entry for the settlement of loan advanced by the firm to a partner would be: & 1 \\ \hline 6 & \begin{tabular}{l} A company forfeited 4,000 shares of` 10 each on which application money of `3 has been paid. Out of these 2,000 shares were reissued as fully paid up and \({ }^{4}, 000\) has been transferred to capital reserve. Calculate the rate at which these shares were reissued. \\ a. \(\quad 10\) Per share \\ b. \(\quad 9\) Per share \\ c. \(\quad 11\) Per share \\ d. \(\quad 8\) Per share \end{tabular} & 1 \\ \hline \end{tabular} \begin{tabular}{\|c|c|c|} \hline & & \\ \hline 7 & \begin{tabular}{l} On the basis of the following data, how much final payment will be made to a partner on firm's dissolution? Credit balance of capital account of the partner was` 50,000 . Share of loss on realization amounted to ` 10,000 . Firm's liability taken over by him was for \({ }^{`} 8,000\). <br> a. $\quad 32,000$ <br> b. $\quad 48,000$ <br> c. $\quad 40,000$ <br> d. $\quad 52,000$ | 1 |
| 8 | Arun and Vijay are partners in a firm sharing profits and losses in the ratio of 5:1. <br> Balance Sheet (Extract) <br> If value of machinery in the balance sheet is undervalued by $20 \%$, then at what value will machinery be shown in new balance sheet: <br> (a) ${ }^{{f1d15b984-8856-41f2-8a93-af7c27ad869e} 48,000 \\ (c) \({f7650c4e3-7ad1-4661-bbb7-e9a26795af19} 50,000$ | 1 |
| 9 | Rex, Tex and Flex are partners in a firm in the ratio of 5:3:2. As per their partnership agreement, the share of deceased partner is to be calculated on the basis of profits and turnover of previous accounting year. <br> Tex expired on $31^{\text {st }}$ December 2019. Turnover till the date of death was ${ }^{{f9d81fe15-5513-435a-ab00-7ff082821d72} 20,00,000$ respectively. <br> An amount of ${ }^{{f7ec972d5-cb63-436c-a179-cb15092ba6d2} 12,00,000$. Which account will be debited to transfer C's share of profits: <br> a. Profit and Loss Suspense Account. <br> b. Profit and loss Appropriation Account. <br> c. Profit and loss Account. <br> d. None of the above. | 1 |
| 12 | $\mathrm{E}, \mathrm{F}$ and G are partners sharing profits in the ratio of 3:3:2. As per the partnership agreement, G is to get a minimum amount of ${ }^{{ff73de680-54c3-4bab-a093-0b96798068fe} \(3,12,000$. Calculate the amount of deficiency to be borne by E ? <br> a. $\quad 1,000$ <br> b. $\quad 4,000$ <br> c. $\quad 8,000$ | 1 |

\begin{tabular}{|c|c|c|c|}
\hline \& d. \({ }^{2}, 000\) \& \& \\
\hline 13 \& \multicolumn{2}{|l|}{\begin{tabular}{l}
Pick the odd one out: \\
a. Rent to partner. \\
b. Manager's Commission. \\
c. Interest on Partner's Loan. \\
d. Interest on Partner's capital.
\end{tabular}} \& 1 \\
\hline \multirow[t]{16}{*}{14} \& \multicolumn{2}{|l|}{From the following information, calculate the amount to be charged to Income and Expenditure Account for 'Sports material consumed' for the year 2019-20.} \& \multirow[t]{16}{*}{3} \\
\hline \& Particulars \& Amount (') \& \\
\hline \& Stock of Sports material (01-04-2019) \& 60000 \& \\
\hline \& Amount paid to creditors (during 2019-20) \& 3,00,000 \& \\
\hline \& Creditors for Sports Materials (01-04-2019) \& 1,00,000 \& \\
\hline \& Creditors for Sports Materials (31-03-2020) \& 80000 \& \\
\hline \& Sports Material sold During the year (Book Value Rs.35,000) \& 15000 \& \\
\hline \& Cash Purchases of Sports Material (During the Year 2019-20) \& 1,30,000 \& \\
\hline \& There was zero stock at the end of financial year 2019-20. \& \& \\
\hline \& \begin{tabular}{l}
Or \\
Calculate the amount of Subscription to be credited to Income and Expenditure
\end{tabular} \& count for the year 2019-20 \& \\
\hline \& Particulars \& Amount ( \({ }^{\text {( ) }}\) \& \\
\hline \& Amount received during the year (including ` 20,000 for 2018-19, ` 30,000 for 2020-21 and `10,000 for 2021-22) \& 7,80,000 \& \\
\hline \& Subscription received in advance as on 01-04-2019 (including `15,000 for 2020-21) \& 35000 \& \\
\hline \& Subscription in arrears as on 01-04-2019 \& 40000 \& \\
\hline \& Subscription in arrears as on 31-03-2020 \& 50000 \& \\
\hline \& \multicolumn{2}{|l|}{Out of subscription in arrears on 01-04-2019, \({ }^{\text {` }} 15,000\) are no longer recoverable.} \& \\
\hline 15 \& \multicolumn{2}{|l|}{\begin{tabular}{l}
Rohit, Raman and Raina are partners in a firm. Their capital accounts on 1st April, 2019, stood at \({ }^{`} 2,00,000\), \(` 1,20,000\) and \({ }^{`} 1,60,000\) respectively. Each partner withdrew \({ }^{`} 15,000\) during the financial year 2019-20. As per the provisions of their partnership deed: \\
(a) Interest on capital was to be allowed @ \(5 \%\) per annum. \\
(b) Interest on drawings was to be charged @ 4\% per annum. \\
(c) Profits and losses were to be shared in the ratio 5:4:1. \\
The net profit of \({ }^{7} 72,000\) for the year ended 31st March 2020, was divided equally amongst the partners with providing for the terms of the deed. \\
You are required to pass a single adjustment entry to rectify the error (Show workings clearly).
\end{tabular}} \& 4 \\
\hline
\end{tabular}




They agreed to admit Pranav into partnership for $1 / 5$ th share of profits on 1st April, 2020, on the following terms:
(a) All Debtors are good.
(b) Value of land and building to be increased to ${ }^{`} 1,80,000$.
(c) Value of plant and machinery to be reduced by ${ }^{`} 20,000$.
(d) The liability against Workmen's Compensation Fund is determined at ${ }^{`} 20,000$ which is to be paid later in the year.
(e) Mr. Anil, to whom `40,000 were payable (already included in above creditors), drew a bill of exchange for 3 months which was duly accepted. (f) Pranav to bring in capital of \({ }^{`} 1,00,000\) and $` 10,000$ as premium for goodwill in cash.

Journalize.
Or

Krish, Vrish and Peter are partners sharing profits in the ratio of 3:2:1. Vrish retired from the firm. On that date the Balance Sheet of the firm was as follows:

Balance Sheet as on March 31, 2020

| Liabilities | (') | Assets | (`) \\ \hline Creditors & 15,000 & Bank & 7,600 \\ General Reserve & 12,000 & Furniture & 41,000 \\ \hline \end{tabular} \begin{tabular}{\|c|c|c|c|c|c|} \hline & \begin{tabular}{l} \begin{tabular}{|ll|} \hline \begin{tabular}{l}  Bills Payable \\ Outstanding Salary \\ Provision for Legal Damages \\ Capitals \end{tabular} \\ & Krish \\ & Vrish \\ & Peter \\ \hline \end{tabular} \\ Additional Information : \\ - Premises to be appre was to be maintained 1,200 and furniture to \\ - Goodwill of the firm is \\ - `26,000 from Vrish's bank; if required, nec |
| :--- | :--- | :--- | ---: |
| - New profit sharing ra Prepare Revaluation Account, Par |  |  |  | \& | 12,000 <br> 2,200 <br> 6,000 <br>  <br> 46,000 <br> 30,000 <br> 20,000 <br> $1,43,200$ |
| :--- |
| Stock to b tors. Furth to `45,000. ,000. t be transfe y be obtain Peter is de ccounts and \end{tabular} & \begin{tabular}{l} Stock \\ Premises \\ Debtors 6,000 \\ Less: Provision for Doubtful Debts 400 \\ e depreciated by \(10 \%\) and Provision for er, provision for legal damages is to be 0. \\ rred to his loan account and balance to be ed from bank. \\ cided to be 5:1. \\ Balance Sheet. \end{tabular} & \begin{tabular}{l} \begin{tabular}{r} 9,000 \\ 80,000 \\ \\ 5,600 \\ \\ \hline \(1,43,200\) \\ \hline \end{tabular} \\ ubtful debts creased by \\ paid through \end{tabular} & \\ \hline 22 & \begin{tabular}{l} Zocon Ltd. issued a prospectus in \(10 \%\) payable as: \\`3 on Application |
| ${f62e50ae5-eabc-4df7-ab8d-c803d33f495e} 3 on call. \\ Applications were receive \\ Allotment was made as follows: \\ (a) Applicants of \(4,00,000$ sh |
| (b) Applicants of $2,00,000$ sh |
| (c) Applicants of 60,000 shar |
| A shareholder to whom 500 share along with allotment money. Ano to pay the amount due on allotme ${fbc49891f-a48e-47bb-8d6d-f2e34eeffcb6}} 7$ paid up. Call has Journalise. |
| X Ltd. has offered 50000 equity s Application `50 Allotment ` 40 (including prem and balance on first and final The bank account of the company X Ltd. decided to allot shares to all time of allotment and first and fin forfeited and re-issued at `90 per \end{tabular} & \begin{tabular}{l} ns for 5,00, \\ shares. \\ tted in full. tted 50\% on letters of \(r\) d under cat er to whom were imm made. \\ ach at a pr \\ 35, 00,000 \\ s on Pro Ra \\ ed to`1, 00 |
| paid up. Jou | \& | , 000 equity shares of `10 each issued at \\ pro rata basis. \\ egret. \\ gory (a) paid full amount on shares allo 1,000 shares were allotted under cate diately forfeited. These shares were th \\ mium of ` 20 , payable as follows: |
| :--- |
| on account of share application money ta basis. The balance in calls in arrears 000 and ${ }^{{f9038f936-19be-45cb-a8c0-0872766cde3a} 40,000 . \\ B. Inflow \({ }^{4} 42,600$. |
| C. Outflow `61,600 . \\ D. Outflow` 64,000 | \& <br>

\hline 24 \& What will be the Current ratio of a company whose Net Working Capital is Zero? \& 1 <br>

\hline 25 \& | Which of the following is not a part of Finance Cost (in statement of profit and loss)? |
| :--- |
| (a) Bank Charges |
| (b) Interest Paid on Debentures |
| (c) Interest Paid on Public Deposits |
| (d) Loss on Issue of Debentures | \& 1 <br>

\hline 26 \& | Which of the following is not an investing cash flow? |
| :--- |
| A. Purchase of marketable securities for ${ }^{\prime} 25,000$ cash. |
| B. Sale of land for ${ }^{{fcd7ed2fc-a8d8-42c8-bcd0-250b53b186b6} 15 each. \\ D. Purchase of equipment for \({ }^{`} 500$ cash. | \& 1 <br>

\hline 27 \& Proposed dividend is a ___ liability. \& 1 <br>

\hline 28 \& | The $\qquad$ may indicate that the firm is experiencing stock outs and lost sales. |
| :--- |
| a. Average payment period |
| b. Inventory turnover ratio |
| c. Average collection period |
| d. Quick ratio | \& 1 <br>


\hline 29 \& | Current ratio of Vidur Pvt. Ltd. is 3:2. Accountant wants to maintain it at 2:1. Following options are available. |
| :--- |
| (i) He can repay Bills Payable |
| (ii) He can purchase goods on credit |
| (iii) He can take short term loan | \& 1 <br>

\hline
\end{tabular}

Choose the correct option
(a) Only (i) is correct
(b) Only (ii) is correct
(c) Only (i) and (iii) are correct
(d) Only (ii) and (iii) are correct

30 Calculate proprietary ratio, if Total assets to Debt ratio is 2:1. Debt is ${ }^{`} 5,00,000$. Equity shares capital is 0.5 times of debt. Preference Shares capital is $25 \%$ of equity share capital. Net profit before tax is ${ }^{`} 10,00,000$ and rate of tax is 40\%.

Or
From the following information, calculate 'Interest Coverage Ratio.
Profit after interest and tax
`7,50,000


|  | Total | 56 | 4,35,000 | 5,80,000 |
| :---: | :---: | :---: | :---: | :---: |
|  | II. Assets <br> 1. Non-current Assets |  |  |  |
|  | (a) Fixed Assets |  |  |  |
|  | (i) Tangible Assets |  | 1,50,000 | 2,00,000 |
|  | (ii) Intangible Assets |  | 10,000 | 2,000 |
|  | (b) Long-term Loans and Advances |  | 1,00,000 | 1,30,000 |
|  | 2. Current Assets |  |  |  |
|  | (a) Inventories |  | 70,000 | 90,000 |
|  | (b) Trade Receivables |  | 40,000 | 60,000 |
|  | (c) Cash and Cash Equivalents |  | 65,000 | 98,000 |
|  | Total |  | 4,35,000 | 5,80,000 |

Note to Accounts

| Particulars | 31st March 2019 | 31st March 2020 |
| :---: | :---: | :---: |
| 1. Reserves and Surplus General Reserve | 50,000 | 70,000 |
| 2. Long-term Borrowings 12\% Debentures | 1,00,000 | 80,000 |
| 3. Trade Payables Creditors Bills Payable | $\begin{aligned} & 40,000 \\ & 20,000 \end{aligned}$ | $\begin{array}{r} 60,000 \\ 1,00,000 \end{array}$ |
|  | 60,000 | 1,60,000 |
| 4. Other Current Liabilities Outstanding Expenses | 25,000 | 20,000 |
| 5. Tangible Fixed Assets Machinery Less: Provision for Depreciation | $\begin{array}{r} 2,00,000 \\ (50,000) \\ \hline 1,50,000 \\ \hline \end{array}$ | $\begin{array}{r} 2,60,000 \\ \underline{(60,000)} \\ \hline \mathbf{2 , 0 0 , 0 0 0} \\ \hline \end{array}$ |
| 6. Intangible Fixed Assets Goodwill | 10,000 | 2,000 |

Additional Information:

1. During the year a piece of machinery with a book value of `30,000 ; provision for depreciation on it` 10,000 was sold at a loss of $50 \%$ on book value.
2. Debentures were redeemed on $31^{\text {st }}$ March 2020.

|  | Part - B <br> (Computerised Accounting) | 1 |
| :--- | :--- | :--- |
| 23 | What is meant by 'Primary Key'? | Computerised Accounting system takes (i) <br> generate reports. |
| 25 | A cell reference that holds either row or column constant when the formula or function is copied to another <br> location is known as : <br> (A) Absolute cell reference | 1 |


|  | (B) Ranges <br> (C) Relative cell reference <br> (D) Mixed cell reference |  |
| :---: | :---: | :---: |
| 26 | The data is classified for creating groups of accounts in the heads of: <br> (A) Assets, Liabilities and Capital <br> (B) Assets, Owners' equity, Revenue and Expenses <br> (C) Assets, Capital, Liabilities, Revenue and Expenses <br> (D) Capital, Revenue and Expenses | 1 |
| 27 | A1 : E2 in Excel refers to : <br> (A) Column on Excel sheet <br> (B) Row on Excel sheet <br> (C) Column between start and end points of Excel sheet <br> (D) Alphabets between A to E on Excel sheet. | 1 |
| 28 | Name the data element in accounting transaction. | 1 |
| 29 | Which of the following is not a limitation of Computerised Accounting system? <br> (A) Data may be lost or corrupted due to power interruptions. <br> (B) Data is prone to hacking. <br> (C) Data is not made available to everybody. <br> (D) Unprogrammed and un-specified reports cannot be generated. | 1 |
| 30 | Explain ‘Null Values' and 'Complex Attributes'. <br> OR <br> Explain any three types of vouchers used for entry in Tally software with the help of examples. | 3 |
| 31 | Q. Explain 'Sequential' and 'Mnemonic' codes. <br> What is meant by a graph? Explain any three of its advantages. | 4 |
| 32 | Identify the error that appears when there are invalid numeric values in a formula or function. How can this error be rectified? Explain. | 6 |

## Sample Question Paper 2020-21

## Class XII <br> Biology (044) Theory

Time: 3 Hours
Maximum Marks: 70

## General Instructions:

(i) All questions are compulsory.
(ii) The question paper has four sections: Section A, Section B, Section C and Section D. There are 33 questions in the question paper.
(iii) Section-A has 14 questions of 1 mark each and 02 case-based questions. Section-B has 9 questions of 2 marks each. Section-C has 5 questions of 3 marks each and Section-D 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.

| SECTION A |  |  |
| :--- | :--- | :---: |
|  | Questions | Marks |
| 1. | Why does endosperm development precede embryo development? | 1 |
| 2. | How many meiotic divisions are required to produce 76 seeds in a Guava fruit? | 1 |
| 3. | How does pollination take place in water hyacinth and water lily? | 1 |
| 4. | Name the glands that contribute to human seminal plasma. | 1 |
| 5. | A snapdragon plant with violet flowers was crossed with another such plant with <br> white flowers. The F1 progeny obtained had pink flowers. Explain, in brief, the <br> inheritance pattern seen in offsprings of F1 generation? | 1 |
| 6. | Differentiate between aneuploidy and polyploidy. | 1 |
| 7. | Predict the effect if, the codon UAU coding for an amino acid at the $25^{\text {th }}$ position <br> of a polypeptide of 50 amino acids, is mutated to UAA. | 1 |
| 8. | Differentiate between pro-insulin and mature insulin. | 1 |
| 9. | Name the commonly used vector for cloning genes into higher organisms. | 1 |
| 10. | Which of the three forests- Temperate, Mangroves and Tropical Evergreen is <br> more vulnerable to invasion by outside animals and plants? | 1 |


| 11. | Assertion: Primary transcripts in eukaryotes are nonfunctional. <br> Reason: Methyl guanosine triphosphate is attached to $5^{\prime}$ - end of hnRNA. <br> a. Both assertion and reason are true, and reason is the correct explanation of assertion. <br> b. Both assertion and reason are true, but reason is not the correct explanation of assertion. <br> c. Assertion is true but reason is false. <br> d. Both assertion and reason are false. <br> OR <br> Assertion: An organism with lethal mutation may not even develop beyond the zygote stage. <br> Reason: All types of gene mutations are lethal. <br> a. Both assertion and reason are true, and the reason is the correct explanation of the assertion. <br> b. Both assertion and reason are true, but the reason is not the correct explanation of the assertion. <br> c. Assertion is true but reason is false. <br> d. Both assertion and reason are false | 1 |
| :---: | :---: | :---: |
| 12. | Assertion: E. coli having pBR322 with DNA insert at BamHI site cannot grow in medium containing tetracycline. <br> Reason: Recognition site for Bam HI is present in tet ${ }^{\mathrm{R}}$ region of pBR 322 . <br> a. Both assertion and reason are true, and the reason is the correct explanation of the assertion. <br> b. Both assertion and reason are true, but the reason is not the correct explanation of the assertion. <br> c. Assertion is true but reason is false. <br> d. Both assertion and reason are false | 1 |
| 13. | Assertion: A community with more species is more stable than that with less species. <br> Reason: More the number of species, lesser the variation in the total biomass production year after year. <br> a. Both assertion and reason are true, and the reason is the correct explanation of the assertion. <br> b. Both assertion and reason are true, but the reason is not the correct explanation of the assertion. <br> c. Assertion is true but reason is false. <br> d. Both assertion and reason are false | 1 |


| 14. | Assertion: In Ophrys one petal of the flower bears an uncanny resemblance to the female bee. <br> Reason: Two closely related species competing for the same resource can coexist simultaneously. <br> a. Both assertion and reason are true, and the reason is the correct explanation of the assertion. <br> b. Both assertion and reason are true, but the reason is not the correct explanation of the assertion. <br> c. Assertion is true but reason is false. <br> d. Both assertion and reason are false | 1 |
| :---: | :---: | :---: |
| 15. | Read the following and answer any four questions from 15(i) to 15(v) given below: <br> Ecological Indicators <br> The presence of dragonflies can reveal changes in the water ecosystems more quickly than studying other animals or plants. In fact, from the nymph to the adult stage, the dragonfly has a significant, positive ecological impact. Dragonfly eggs are laid and hatched in or near water, so their lives impact both water and land ecosystems. Once hatched, dragonfly nymphs can breathe underwater which enables them to eat mosquito larvae, other aquatic insects and worms, and even small aquatic vertebrates like tadpoles and small fish and in the air. Adult dragonflies capture and eat adult mosquitoes. <br> Community wide mosquito control programs that spray insecticides to kill adult mosquitoes also kill dragonflies. | 4 |
| i. | The approach to biological control includes: <br> a. Import and release of an insect pest to a new area to provide hosts for natural enemies <br> b. Import and release of natural enemies from the native home of an alien insect pest that has invaded a new area <br> c. Preservation of natural enemies (predators \& parasitoids) that are already established in an area <br> d. Use of insecticides to reduce alien insect pests to establish new equilibrium position. |  |
| ii. | Two diseases less likely to occur in a region with plenty of dragonflies are $\qquad$ <br> a. Yellow fever and amoebic dysentery <br> b. Malaria and Yellow fever <br> c. Anthrax and typhoid <br> d. Cholera and typhoid |  |


| iii. | Dragonflies indicate positive ecological impact as- <br> a. The presence of dragonflies indicates polluted water. <br> b. Dragonfly nymphs selectively eat mosquito larvae. <br> c. They help to decrease the probability of diseases spread by vectors. <br> d. Dragonfly do not cause any harm to beneficial species. |  |
| :---: | :--- | :--- |
| iv. | The most effective stages in the life cycle of dragonfly that eradicate mosquitoes <br> are- <br> a. Larvae and Adult <br> b. Caterpillar and Adult <br> c. Nymph and Adult <br> d. Pupa and Adult |  |
| v. | Assertion: Releasing dragonflies in areas where there is an outbreak of <br> malarial diseases can be an environment friendly method of control. <br> Reason: Dragon flies are dominant species and will not allow mosquitoes to <br> reproduce <br> a. Both assertion and reason are true, and the reason is the correct explanation of <br> the assertion. <br> b. Both assertion and reason are true, but the reason is not the correct explanation <br> of the assertion. <br> c. Assertion is true but reason is false. <br> d. Both assertion and reason are false |  |
| 16. | Read the following and answer any four questions from l6(i) to l6(v) given |  |
| Relow: <br> bickle cell anemia is a genetic disorder where the body produces an abnormal <br> hemoglobin called hemoglobin S. Red blood cells are normally flexible and <br> round, but when the hemoglobin is defective, blood cells take on a "sickle" or <br> crescent shape. Sickle cell anemia is caused by mutations in a gene called HBB <br> It is an inherited blood disorder that occurs if both the maternal and paternal <br> copies of the HBB gene are defective. In other words, if an individual receives <br> just one copy of the defective HBB gene, either from mother or father, then the <br> individual has no sickle cell anemia but has what is called "sickle cell trait". <br> People with sickle cell trait usually do not have any symptoms or problems but <br> they can pass the mutated gene onto their children. There are three inheritance <br> scenarios that can lead to a child having sickle cell anemia: <br> $-\quad$Both parents have sickle cell trait <br> One parent has sickle cell anemia and the other has sickle cell trait anemia |  |  |


| i. | Sickle cell anemia is a/ an $\qquad$ disease. <br> a. X linked <br> b. autosomal dominant <br> c. autosomal recessive <br> d. Y linked |  |
| :---: | :---: | :---: |
| ii. | If both parents have sickle cell trait, then there is $\qquad$ of the child having sickle cell anemia. <br> a. $25 \%$ risk <br> b. $50 \%$ risk <br> c. $75 \%$ risk <br> d. No risk |  |
| iii. | If both parents have sickle cell trait, then there is $\qquad$ of the child having sickle cell trait. <br> a. $25 \%$ risk <br> b. $50 \%$ risk <br> c. $75 \%$ risk <br> d. No risk |  |
| iv. | If one parent has sickle cell anemia and the other has sickle cell trait, there is $\qquad$ that their children will have sickle cell anemia and $\qquad$ will have sickle cell trait. <br> a. $25 \%$ risk, $75 \%$ risk <br> b. 50 \% risk, $50 \%$ risk <br> c. $75 \%$ risk, $25 \%$ risk <br> d. No risk |  |
| v. |  <br> The following statements are drawn as conclusions from the above data (Kenya). <br> I. Patients with SCD (Sickle Cell Disease) are less likely to be infected with malaria. |  |


|  | II. Patients with SCD (Sickle Cell Disease) are more likely to be infected with malaria. <br> III. Over the years the percentage of people infected with malaria has been decreasing. <br> IV. Year 2000 saw the largest percentage difference between malaria patients with and without SCD. <br> Choose from below the correct alternative. <br> a. only I is true <br> b. I and IV are true <br> c. III and II are true <br> d. I and III are true |  |
| :---: | :---: | :---: |
| SECTION - B |  |  |
| 17. | State the composition and principle of oral pills as a contraceptive measure taking the example of Saheli. | 2 |
| 18. | Karyotype of a child shows trisomy of chromosome number 21. Identify the disorder and state the symptoms which are likely to be exhibited in this case. | 2 |
| 19. | Explain four advantages of mycorrhizal association to plants. | 2 |
| 20. | Explain the method to increase the competency of the bacterial cell membrane to take up recombinant DNA? <br> OR <br> What are bioreactors? How are large volumes of cultures maintained and processed in them? | 2 |
| 21. | Explain the role of enzymes in the extraction of DNA from Rhizopus in its purest form. | 2 |
| 22. | What are sticky ends? State their significance in recombination DNA technology. <br> OR <br> Explain the procedure by which PCR aids in early detection of cancer. | 2 |
| 23. | Explain how advanced ex-situ conservation techniques assist in preserving threatened species of plants and animals. | 2 |
| 24. | Define interference competition. Give one example that supports competitive exclusion occurring in nature. | 2 |
| 25. | The Tropical regions are likely to have more biological diversity than the Temperate ones. Give two reasons to justify the statement. | 2 |
| Page 6 of 9 |  |  |


| SECTION - C |  |  |
| :---: | :---: | :---: |
| 26. | A fully developed foetus initiates its delivery from the mother's womb. Justify the statement. | 3 |
| 27. | How would you find out the genotype of a pea plant with violet flowers? Explain with the help of Punnets' square showing crosses. | 3 |
| 28. | Define flocs and state their importance in biological treatment of waste water. | 3 |
| 29. | A farmer noticed that nematode infection in tobacco plants has resulted in the reduction in the yield. Suggest a strategy which provides cellular defense for providing resistance to this pest. Explain the technique. | 3 |
| 30. | The graph given below represents three categories of organismic responses - L, M and N to cope with stressful conditions. Identify the categories L and M . <br> Given below are examples of some of the activities performed by animals. Categorise these activities into the appropriate kind of the organismic response ( $\mathrm{L}, \mathrm{M}$ or N ) as shown in the graph with reasons. <br> i. In summers we sweat profusely. <br> ii. Sometimes desert lizards bask in the sun and sometimes they move into shade. <br> OR <br> Give reasons for the following: <br> a. Very small animals are rarely found in polar regions. <br> b. Mammals from colder climate generally have shorter ear and limbs. <br> c. Initially we feel nausea and fatigue when we reach a high altitude such as Rohtang Pass and then, gradually, we feel normal. | 3 |

## SECTION - D

31. Study the graph given below related with menstrual cycle in females:
a. Identify ovarian hormones X and Y mentioned in the graph and specify their source.

b. Corelate and describe the uterine events that take place according to the ovarian hormone levels X and Y mentioned in the graph on -
i. $6-15$ days
ii. $16-25$ days
iii. $26-28$ days (when ovum is not fertilized)

## OR

The following figure shows a foetus within the uterus. On the basis of the given figure, answer the questions that follow:

(a) In the above figure, choose and name the correct part (A, B, C or D) that act as a temporary endocrine gland and substantiate your answer. Why is it also called the functional junction?
(b) Mention the role of B in the development of the embryo.
(c) Name the fluid surrounding the developing embryo. How is it misused for sex-determination?

|  |  |  |
| :--- | :--- | :---: |
| 32. | Evaluate the suitability of DNA and RNA as genetic material and justify the <br> suitability of the one that is preferred as an ideal genetic material. <br> OR | 5 |
| 33. | Explain the mechanism of DNA replication as suggested by Watson and Crick. <br> Identify and name the disease in which the patient's cells lose the property of <br> contact inhibition. State its possible causes and explain any three methods to <br> accurately detect the pathological and physiological changes that take place due <br> to the disease in living tissues. $\quad$ OR <br> A patient had tested positive to ELISA Test. Identify the disease and the <br> pathogen responsible, give reasons for the reduced/weak immunity of the patient <br> and trace the path, spread and effects of this pathogen in the human body. |  |


|  | CLASS XII <br> BUSINESS STUDIES <br> SAMPLE QUESTION PAPER 2020-21 $\text { ММ - } \mathbf{8 0}$ <br> TIME: 3 HOURS |  |
| :---: | :---: | :---: |
|  | General instructions: <br> 1 This question paper contains 34 questions. <br> 2. Marks are indicated against each question. <br> 3. Answer should be brief and to the point. <br> 4. Answers to the questions carrying $\mathbf{3}$ marks may be from 50 to $\mathbf{7 5}$ worlds. <br> 5. Answers to the questions carrying 4 marks may be about 150 worlds. <br> 6. Answers to the questions carrying 6 marks may be about 200 worlds. <br> 7. Attempt all parts of the questions together. |  |
| 1. | $\qquad$ is the process of dividing work into manageable activities and then grouping the activities which are similar in nature. <br> A. Coordination <br> B. Departmentalisation <br> C. Organisation Structure <br> D. Delegation of authority | 1 |
| 2. | Even Though the political conditions vary from country to country, they impact the sentiment of an investor in the business, if the instability of the political conditions cause uncertainty and make it difficult for him to predict the future. Which feature of the Business environment is being highlighted in the above statement? <br> A. Specific and general forces <br> B. Dynamic nature <br> C. Relativity <br> D. All the above. | 1 |


| 3. | "Any one can be called a manager irrespective of the educational qualification possessed." <br> Identify the characteristic of the profession that Management does not fulfil in the statement being discussed above. <br> A. Ethical code of Conduct <br> B. Professional Association <br> C. Restricted Entry <br> D. Service Motive | 1 |
| :---: | :---: | :---: |
| 4. | "Even after opening up of the Indian economy in 1991 foreign companies found it extremely difficult to cut through the bureaucratic red tape to get permits for doing business in India, which created a negative impact on business." <br> Identify the dimension of the business environment which led to creation of the negative impact on business. <br> A. Social Environment <br> B. Technological <br> C. Political Environment <br> D. Legal Environment | 1 |
| 5. | Name the process of working with and through others to effectively achieve organisational objectives by efficiently using limited resources in a changing environment. <br> A. Management <br> B. Planning <br> C. Organising <br> D. Controlling. | 1 |
| 6. | "The increase in the demand for many Ayurvedic medicines, Health products and services in the past few months, is related to the need for building immunity and an increased awareness for health care due to the spread of Corona virus." Identify the feature of business environment being described above. <br> A. Specific and general forces <br> B. Interrelatedness <br> C. Relativity <br> D. None of the above | 1 |

7. Which of the following is not an element of social environment?
A. Birth and Death rate
B. Constitution of the country
C. Population Shifts
D. Life expectancy
8. 'Even where members of a department willingly cooperate and work, a manager has to coordinate the efforts of different people in a conscious manner.' Identify the characteristic of coordination discussed above.
A. Coordination ensures unity of action
B. Coordination is a deliberate function
C. Coordination is a continuous process
D. Coordination is an all-pervasive function
9. Name the function of management which helps in the formulation of future plans, in the light of the problems that were identified and thus, helps in better planning in the future period.
A. Planning
B. Organising
C. Directing
D. Controlling
10. Identify an important principle of management control in which only significant deviations which go beyond the permissible limit should be brought to the notice of management.
A. Management by control
B. Control by exception
C. Critical point control
D. $(\mathrm{a}) \&(\mathrm{~b})$
11. chaos, removes conflict among people over work or responsibility sharing and creates an environment suitable for teamwork.
A. Planning
B. Organising
C. Staffing
D. Controlling
OR
ensures that the heads of separate business units in the organisation are responsible for profit or loss of their unit and have authority over it.
A. Span of management
B. Divisional Structure
C. Functional structure
D. Hierarchy of Authority.
12. 

Match the concept of marketing in Column I with their respective definition in Column II

| COLUMN-I |  | COLUMN - II |  |
| :--- | :--- | :--- | :--- |
| A) | Product Concept | i. | relates to maintaining high quality of the product |
| B) | Selling <br> Concept | ii | relates to satisfying customer needs |
| C) | Marketing <br> Concept | iii. | relates to aggressively persuading buyer to purchase the <br> product |

A. i,ii,iii
B. $\mathrm{ii}, \mathrm{i}, \mathrm{iii}$
B. iii,ii,i
D. $\mathrm{i}, \mathrm{iii}, \mathrm{ii}$

OR

In order to get feedback about its recently launched immunity boosting ayurvedic medicine, Atulya limited conducted an online survey using a questionnaire, to gather customer views and opinions. Identify the marketing function being used by Atulya

|  | Limited: <br> A. Standardisation <br> B. Product Designing <br> C. Customer support service <br> D. Gathering and analyzing market information |  |
| :---: | :---: | :---: |
|  | Read the following text and answer question No.13-16 on the basis of the same: <br> ISQAA SOLAR limited is searching options to raise ₹ 20,000 crores from the primary market for diversification and modernisation of existing projects. It hired the services of a renowned financial consultancy firm, DHAN LAXMI PVT. LTD. for suggesting options for the same. DHAN LAXMI PVT. LTD. suggested a list of options to the Board of Directors of the company. It was decided that for the immediate requirement of ₹ 1500 crores the company will give a privilege to existing shareholders to subscribe to a new issue of shares according to the terms and conditions of the company. ₹ 4500 crores would be raised by allotment of securities to a consortium of financial institutions, instead of inviting subscription from the public by making a direct appeal to investors to raise capital. It was further decided to raise capital to the tune of ₹ 6000 crores through an issuing house. All these options were accepted by the Board of Directors. The Board further decided to raise ₹ 8,000 crores through the on-line system of the stock exchange by entering into an agreement with the exchange. | 1 |
| 13. | Identify the method of floatation of new issues in the primary market, not taken up by ISQAA SOLAR LTD. <br> A. Offer for sale <br> B. Rights issue <br> C. E-IPO <br> D. Offer through prospectus | 1 |
| 14. | "₹ 4500 crores would be raised by allotment of securities to a consortium of financial institutions, instead of inviting subscription from the public by making a direct appeal to investors to raise capital." Identify the method of floatation of new issues in the primary market being discussed above, which the company has decided to use. <br> A. Offer for sale <br> B. Private placement <br> C. Right Issue <br> D. Offer through Prospectus | 1 |
| 15. | Identify the reason which has made the firm raise funds from the institutional investors. <br> A. It helps to raise funds quickly <br> B. It is not expensive <br> C. Both a \& b <br> D. None of the above. | 1 |


| 16. | How much money was raised by the company through E-IPO's <br> A.₹8000 crores <br> B. ₹ 4500 crores <br> C. ₹20,000 crores <br> D. ₹ 6000 crores | 1 |
| :---: | :---: | :---: |
|  | Read the following text and answer question No.17-20 on the basis of the same: <br> Yamuna Prasad, a small shopkeeper in Bikaner, Rajasthan used to sell the famous 'Bhujia-Sev'. It was a quick selling product for locals and foreign tourists. His second generation expanded the business and got 'Yamuna Ki Bhujia' registered with concerned authorities. Gradually the brand offered a wide range of products to its customers like namkeen, sweets, bakery items etc. However, 'Bhujia-Sev' remained the most popular product of the brand creating maximum revenue. <br> 'Yamuna Ki Bhujia' offered its products at competitive prices even while offering customer services like gift packaging and free home delivery to become a household name. Now it has virtually become a synonym for bhujia-sev in the market, so much so, that people ask for 'Yamuna Ki Bhujia' instead of bhujia-sev. 'Yamuna Ki Bhujia' has developed a strong distribution network in India and abroad by setting up retail outlets and reaching out to the customer through internet selling. <br> Promotion of the brand had always been low profile, till the increase in competition pushed it to hire the services of a professional advertising agency, VIGYAPAN PVT.LTD for promoting the product. On the advice of VIGYAPAN PVT.LTD, 'Yamuna Ki Bhujia' has also worked upon managing public opinion by developing relations with the masses through sponsoring cultural and sporting events, maintenance of public parks etc. |  |
| 17. | 'His second generation expanded the business and got 'Yamuna Ki Bhujia' registered with concerned authorities.' <br> With reference to the given text 'Yamuna ki Bhujia' is a $\qquad$ giving it a legal protection against its use by anyone else. <br> A. Brand value <br> B. Trademark <br> C. Trait mark <br> D. Brand mark | 1 |
| 18. | 'Yamuna Ki Bhujia' offered its products at competitive prices even while offering customer services like gift packaging and free home delivery to become a household name. <br> Identify the factor affecting the element of marketing mix being discussed above. <br> A. Marketing methods used <br> B. Objectives | 1 |


|  | C. Extent of competition in the market | $\quad$ D. product cost |
| :--- | :--- | :--- |
| 19. | 'Yamuna Ki Bhujia' has developed a strong distribution network in India and abroad by <br> setting up retail outlets and reaching out to the customer through internet selling. <br> Identify the decision related to the element of marketing mix being discussed above. <br> A. Storing and assorting products in order to create time utility <br> B. Regarding the channels or using intermediaries <br> C. Both a \& b <br> D. One regarding branding, packaging and labelling | $\mathbf{1}$ |
| 20. | On the advice of VIGYAPAN PVT.LTD, 'Yamuna Ki Bhujia' has also worked upon managing <br> public opinion by developing relation with the masses through sponsoring cultural and <br> sporting events, maintenance of public parks etc. Name the department in the <br> organisation which is generally responsible for performing the above important task of <br> managing public opinion. | $\mathbf{1}$ |
| A. Marketing Department | B. A separate department created in the firm for the purpose <br> C. An outside agency <br> D. Any of the above. | $\mathbf{3}$ |
| 21. | Identify the level of management whose basic task is to integrate diverse elements and <br> coordinate the activities of different departments according to the overall objectives of <br> the organisation. State any two functions of the level of management identified. | $\mathbf{3}$ |
| 22. | Explain 'Internship training' and 'vestibule training' and classify them as on-the-job and <br> off-the-job methods of training. | $\mathbf{3}$ |


| 23. | "Controlling is an indispensable function of management. Without controlling the best of plans can go awry ". Do you agree? Explain any two reasons in support of your answer. <br> OR <br> "It is generally believed that measurement of performence should be done after the task is completed." Identify and explain the step in the process of the function of management being discussed above and the step followed by the same in the process. | 3 |
| :---: | :---: | :---: |
| 24. | State the development functions of the Securities Exchange Board of India. OR State any three money market instruments. | 3 |
| 25. | 'In an interview with a leading news channel, Mr. Rakesh Kwatra, CEO of 'Get My Job' has suggested that the Companies which want more and more people to apply for jobs in their organisation should make the process for applying for jobs easier and candidate friendly.' <br> Name and explain the next two steps which follow the step, in the process of the function of management being discussed above. | 4 |
| 26. | Pramod is a supervisor at 'Shyam Breads and Biscuits Factory'. The factory produces 20,000 packets of bread and biscuits every day. As a supervisor Promod ensures that work goes on smoothly and there is no interruption in production. He is a good leader who gives orders only after consulting his subordinates, working out the policies with the acceptance of the group. Identify and explain the leadership style being adopted by Pramod | 4 |
| 27 | Briefly explain the positive and negative aspects of the type of communication which arises out of the need of employees to exchange their views. <br> OR <br> Identity and explain the elements of directing mentioned below <br> A. Astha, a manager, has the ability to influence others to bring about a change in their behaviour. <br> B. Neeraj, a managing director, declares share in the profits to the manager for their contribution to increase profits of the company. | 4 |


| 28. | Explain any four factors that can affect the working capital requirement of a company. OR <br> Explain any four factors that affect the choice of capital structure of a company. | 4 |
| :---: | :---: | :---: |
| 29. | Dheeraj wants to start a business of selling $N-95$ masks after the outbreak of the global pandemic of COVID-19. Due to the uncertain market conditions he wants to make a low investment in fixed capital. Suggest how the decisions related to the choice of technique and financing alternatives can help Dheeraj in ensuring a low investment in fixed capital requirements. | 4 |
| 30. | Explain the following rights of consumers provided by Consumer Protection Act, 1986:- <br> (a) Right to Safety <br> (b) Right to Consumer Education | 4 |
| 31. | Explain 'Science, not rule of thumb', 'Harmony, not discord', and 'Development of each and every person to his or her greatest efficiency and prosperity' as principles of Scientific Management given by F.W.Taylor. | 6 |
| 32. | "Planning is worth the huge costs involved?" Do you agree? Explain any four reasons in support of your answer. <br> OR <br> "If the project is important then more alternatives should be generated and thoroughly discussed amongst the members of the organisation." Identify and explain the step in the process of planning being discussed above. Also explain the remaining steps which will have to be carried out to complete the process. | 6 |
| 33. | An important difference between S\&M Ltd and most other companies is that instead of operating as one large corporation it operates as 180 smaller companies each focused on a specific product and area, implying selective dispersal of authority, recognising the decision makers need for autonomy, as decision making authority is pushed down the chain of command. It enables the company to maintain short lines of communication with customers and employees, and accelerate the development of talent. Identify the philosophy that is being followed by $S \& M$ Ltd. through which it is dividing the decision- | 6 |


|  | making responsibilities among the hierarchical levels. State any five points of importance <br> of the philosophy identified. |  |
| :--- | :--- | :--- |
| $34 .$'Advertising' and 'Personal selling' both are communication tools used by the marketers <br> to promote their products. Yet they differ in their approach. Differentiate between the <br> two by giving any six points. | 6 |  |
| "The elements of marketing mix are popularly known as 4 P's of marketing." Briefly <br> explain these elements. |  |  |

## SAMPLE PAPER 1 CHEMISTRY THEORY (043)

MM:70
Time: 3 Hours

## General Instructions:

## Read the following instructions carefully.

a) There are 33 questions in this question paper. All questions are compulsory.
b) Section A: Q. No. 1 to 16 are objective type questions. Q. No. 1 and 2 are passage based questions carrying 4 marks each while Q . No. 3 to 16 carry 1 mark each.
c) Section B: Q. No. 17 to 25 are short answer questions and carry 2 marks each.
d) Section C: Q. No. 26 to 30 are short answer questions and carry 3 marks each.
e) Section D: Q. No. 31 to 33 are long answer questions carrying 5 marks each.
f) There is no overall choice. However, internal choices have been provided.
g) Use of calculators and log tables is not permitted.

## SECTION A (OBJECTIVE TYPE)

## 1. Read the passage given below and answer the following questions:

An efficient, aerobic catalytic system for the transformation of alcohols into carbonyl compounds under mild conditions, copper-based catalyst has been discovered. This copper-based catalytic system utilizes oxygen or air as the ultimate, stoichiometric oxidant, producing water as the only by-product


A wide range of primary, secondary, allylic, and benzylic alcohols can be smoothly oxidized to the corresponding aldehydes or ketones in good to excellent yields. Air can be conveniently used instead of oxygen without affecting the efficiency of the process. However, the use of air requires slightly longer reaction times.
This process is not only economically viable and applicable to large-scale reactions, but it is also environmentally friendly.
(Reference:Ohkuma, T., Ooka, H., Ikariya, T., \& Noyori, R. (1995). Preferential hydrogenation of aldehydes and ketones. Journal of the American Chemical Society, 117(41), 10417-10418.)
The following questions are multiple choice questions. Choose the most appropriate answer:
(i)The Copper based catalyst mention in the study above can be used to convert:
a) propanol to propanonic acid
b) propanone to propanoic acid
c) propanone to propan-2-ol
d) propan-2-ol to propanone
(ii)The carbonyl compound formed when ethanol gets oxidised using this copper-based catalyst can also be obtained by ozonolysis of:
a) But-1-ene
b) But-2-ene
c) Ethene
d) Pent-1-ene

## OR

Which of the following is a secondary allylic alcohol?
a) But-3-en-2-ol
b) But-2-en-2-ol
c) Prop-2-enol
d) Butan-2-ol
(iii) Benzyl alcohol on treatment with this copper-based catalyst gives a compound ' A ' which on reaction with KOH gives compounds ' B ' and ' C '. Compound ' B ' on oxidation with $\mathrm{KMnO}_{4}-\mathrm{KOH}$ gives compound ' C '. Compounds ' A ', ' B ' and ' C ' respectively are :
a) Benzaldehyde, Benzyl alcohol, potassium salt of Benzoic acid
b) Benzaldehyde, potassium salt of Benzoic acid, Benzyl alcohol
c) Benzaldehyde, Benzoic acid, Benzyl alcohol
d) Benzoic acid, Benzyl alcohol, Benzaldehyde
(iv) An organic compound ' X ' with molecular formula $\mathrm{C}_{3} \mathrm{H}_{8} \mathrm{O}$ on reaction with this copper based catalyst gives compound ' Y ' which reduces Tollen's reagent. ' X ' on reaction with sodium metal gives ' $Z$ '. What is the product of reaction of ' $Z$ ' with 2-chloro-2-methylpropane?
a) $\mathrm{CH}_{3} \mathrm{CH}_{2} \mathrm{CH}_{2} \mathrm{OC}\left(\mathrm{CH}_{3}\right)_{3}$
b) $\mathrm{CH}_{3} \mathrm{CH}_{2} \mathrm{OC}\left(\mathrm{CH}_{3}\right)_{3}$
c) $\mathrm{CH}_{2}=\mathrm{C}\left(\mathrm{CH}_{3}\right)_{2}$
d) $\mathrm{CH}_{3} \mathrm{CH}_{2} \mathrm{CH}=\mathrm{C}\left(\mathrm{CH}_{3}\right)_{2}$

## Read the passage given below and answer the following questions:

The amount of moisture that leather adsorbs or loses is determined by temperature, relative humidity, degree of porosity, and the size of the pores. Moisture has great practical significance because its amount affects the durability of leather, and in articles such as shoes, gloves and other garments, the comfort of the wearer. High moisture content accelerates deterioration and promotes
mildew action. On the other hand, a minimum amount of moisture is required to keep leather properly lubricated and thus prevent cracking.

The study indicates that adsorption of moisture by leather is a multi-molecular process and is accompanied by low enthalpies of adsorption. Further at 75 -percent relative humidity, the adsorption is a function of surface area alone.

Hide is tanned to harden leather. This process of tanning occurs due to mutual coagulation of positively charged hide with negatively charged tanning material. Untanned hide and chrometanned leathers have the largest surface areas. The leathers tanned with vegetable tanning materials have smaller surface areas since they are composed of less hide substance and the capillaries are reduced to smaller diameters, in some cases probably completely filled by tanning materials. The result of the study indicated that untanned hide and chrome-tanned leather adsorb the most water vapour.
(Source:Kanagy, J. R. (1947). Adsorption of water vapor by untanned hide and various leathers at 100 F. Journal of Research of the National Bureau of Standards, 38(1), 119-128.)
2. In these questions ( $\mathbf{Q}$. No 5-8 , a statement of assertion followed by a statement of reason is given. Choose the correct answer out of the following choices.
a) Assertion and reason both are correct statements and reason is correct explanation for assertion.
b) Assertion and reason both are correct statements but reason is not correct explanation for assertion.
c) Assertion is correct statement but reason is wrong statement.
d) Assertion is wrong statement but reason is correct statement.
(i) Assertion: Vegetable tanned leather cannot adsorb a large amount of moisture. Reason: Porous materials have higher surface area.
(ii) Assertion: Animal hide soaked in tannin results in hardening of leather. Reason: Tanning occurs due to mutual coagulation.
(iii) Assertion: Adsorption of moisture by leather is physisorption.

Reason: It is a multimolecular process and is accompanied by low enthalpies of adsorption
(iv) Assertion: Leathers tanned with vegetable tanning materials have smaller surface areas Reason: The capillaries present in leather are reduced to smaller diameters

## OR

Assertion: Leather absorbs different amount of moisture.
Reason: Some moisture is necessary to prevent cracking of leather.

Following questions (No. 3-11) are multiple choice questions carrying 1 mark each:

3 Which of the following option will be the limiting molar conductivity of $\mathrm{CH}_{3} \mathrm{COOH}$ if the limiting molar conductivity of $\mathrm{CH}_{3} \mathrm{COONa}$ is $91 \mathrm{Scm}^{2} \mathrm{~mol}^{-1}$ ? Limiting molar conductivity for individual ions are given in the following table.

| S.No | Ions | limiting molar conductivity $/$ Scm $^{\mathbf{2}} \mathbf{m o l}^{-1}$ |
| :--- | :--- | :---: |
| 1 | $\mathrm{H}+$ | 349.6 |
| 2 | $\mathrm{Na}+$ | 50.1 |
| 3 | $\mathrm{~K}+$ | 73.5 |
| 4 | $\mathrm{OH}^{-}$ | 199.1 |

a) $350 \mathrm{Scm}^{2} \mathrm{~mol}^{-1}$
b) $375.3 \mathrm{Scm}^{2} \mathrm{~mol}^{-1}$
c) $390.5 \mathrm{Scm}^{2} \mathrm{~mol}^{-1}$
d) $340.4 \mathrm{Scm}^{2} \mathrm{~mol}^{-1}$
4. Curdling of milk is an example of:
a) breaking of peptide linkage
b) hydrolysis of lactose
c) breaking of protein into amino acids
d) denauration of proetin

## OR

Dissachrides that are reducing in nature are:
a) sucrose and lactose
b) sucrose and maltose
c) lactose and maltose
d) sucrose, lactose and maltose
5. When 1 mole of benzene is mixed with 1 mole of toluene The vapour will contain: (Given : vapour of benzene $=12.8 \mathrm{kPa}$ and vapour pressure of toluene $=3.85 \mathrm{kPa}$ ).
a) equal amount of benzene and toluene as it forms an ideal solution
b) unequal amount of benzene and toluene as it forms a non ideal solution
c) higher percentage of benzene
d) higher percentage of toluene
6. Which of the following is the reason for Zinc not exhibiting variable oxidation state
a) inert pair effect
b) completely filled 3d subshell
c) completely filled 4 s subshell
d) common ion effect

## OR

Which of the following is a diamagnetic ion: (Atomic numbers of $\mathrm{Sc}, \mathrm{V}, \mathrm{Mn}$ and Cu are 21, 23, 25 and 29 respectively)
a) $\mathrm{V}^{2+}$
b) $\mathrm{Sc}^{3+}$
c) $\mathrm{Cu}^{2+}$
d) $\mathrm{Mn}^{3+}$
7. Propanamide on reaction with bromine in aqueous NaOH gives:
a) Propanamine
b) Ethanamine
c) N-Methyl ethanamine
d) Propanenitrile

## OR

IUPAC name of product formed by reaction of methyl amine with two moles of ethyl chloride
a) $\mathrm{N}, \mathrm{N}$-Dimethylethanamine
b) N,N-Diethylmethanamine
c) N-Methyl ethanamine
d) N-Ethyl - N-methylethanamine
8.Ambidentate ligands like $\mathrm{NO}_{2}{ }^{-}$and $\mathrm{SCN}^{-}$are :
a) unidentate
b) didentate
c) polydentate
d) has variable denticity

## OR

The formula of the coordination compound Tetraammineaquachloridocobalt(III) chloride is
a) $\left[\mathrm{Co}\left(\mathrm{NH}_{3}\right)_{4}\left(\mathrm{H}_{2} \mathrm{O}\right) \mathrm{Cl}\right] \mathrm{Cl}_{2}$
b) $\left[\mathrm{Co}\left(\mathrm{NH}_{3}\right)_{4}\left(\mathrm{H}_{2} \mathrm{O}\right) \mathrm{Cl}\right] \mathrm{Cl}_{3}$
c) $\left[\mathrm{Co}\left(\mathrm{NH}_{3}\right)_{2}\left(\mathrm{H}_{2} \mathrm{O}\right) \mathrm{Cl}\right] \mathrm{Cl}_{2}$
d) $\left[\mathrm{Co}\left(\mathrm{NH}_{3}\right)_{4}\left(\mathrm{H}_{2} \mathrm{O}\right) \mathrm{Cl}\right] \mathrm{Cl}$
9. Which set of ions exhibit specific colours? (Atomic number of $\mathrm{Sc}=21, \mathrm{Ti}=22, \mathrm{~V}=23, \mathrm{Mn}=$ $25, \mathrm{Fe}=26, \mathrm{Ni}=28 \mathrm{Cu}=29$ and $\mathrm{Zn}=30$ )
a) $\mathrm{Sc}^{3+}, \mathrm{Ti}^{4+}, \mathrm{Mn}^{3+}$
b) $\mathrm{Sc}^{3+}, \mathrm{Zn}^{2+}, \mathrm{Ni}^{2+}$
c) $\mathrm{V}^{3+}, \mathrm{V}^{2+}, \mathrm{Fe}^{3+}$
d) $\mathrm{Ti}^{3+}, \mathrm{Ti}^{4+}, \mathrm{Ni}^{2+}$
10. Identify $\mathrm{A}, \mathrm{B}, \mathrm{C}$ and D :

a) $\mathrm{A}=\mathrm{C}_{2} \mathrm{H}_{4}, \mathrm{~B}=\mathrm{C}_{2} \mathrm{H}_{5} \mathrm{OH}, \mathrm{C}=\mathrm{C}_{2} \mathrm{H}_{5} \mathrm{NC}, \mathrm{D}=\mathrm{C}_{2} \mathrm{H}_{5} \mathrm{CN}$
b) $\mathrm{A}=\mathrm{C}_{2} \mathrm{H}_{5} \mathrm{OH}, \mathrm{B}=\mathrm{C}_{2} \mathrm{H}_{4}, \mathrm{C}=\mathrm{C}_{2} \mathrm{H}_{5} \mathrm{CN}, \mathrm{D}=\mathrm{C}_{2} \mathrm{H}_{5} \mathrm{NC}$
c) $\mathrm{A}=\mathrm{C}_{2} \mathrm{H}_{4}, \mathrm{~B}=\mathrm{C}_{2} \mathrm{H}_{5} \mathrm{OH}, \mathrm{C}=\mathrm{C}_{2} \mathrm{H}_{5} \mathrm{CN}, \mathrm{D}=\mathrm{C}_{2} \mathrm{H}_{5} \mathrm{NC}$
d) $\mathrm{A}=\mathrm{C}_{2} \mathrm{H}_{5} \mathrm{OH}, \mathrm{B}=\mathrm{C}_{2} \mathrm{H}_{4}, \mathrm{C}=\mathrm{C}_{2} \mathrm{H}_{5} \mathrm{NC}, \mathrm{D}=\mathrm{C}_{2} \mathrm{H}_{5} \mathrm{CN}$
11.The crystal showing Frenkel defect is :
a)

b)

c)

d)


In the following questions (Q. No. 12-16) a statement of assertion followed by a statement of reason is given. Choose the correct answer out of the following choices.
a) Assertion and reason both are correct statements and reason is correct explanation for assertion.
b) Assertion and reason both are correct statements but reason is not correct explanation for assertion.
c) Assertion is correct statement but reason is wrong statement.
d) Assertion is wrong statement but reason is correct statement.
12.Assertion: The two strands of DNA are complementary to each other

Reason: The hydrogen bonds are formed between specific pairs of bases.
13.Assertion: Ozone is thermodynamically stable with respect to oxygen.

Reason:Decomposition of ozone into oxygen results in the liberation of heat
14.Assertion: Aquatic species are more comfortable in cold waters rather than in warm waters. Reason:Different gases have different $K_{\mathrm{H}}$ values at the same temperature

OR
Assertion: Nitric acid and water form maximum boiling azeotrope.
Reason: Azeotropes are binary mixtures having the same composition in liquid and vapour phase.
15. Assertion: Carboxylic acids are more acidic than phenols.

Reason: Phenols are ortho and para directing.
16.Assertion: Methoxy ethane reacts with HI to give ethanol and iodomethane

Reason: Reaction of ether with HI follows $\mathrm{S}_{\mathrm{N}}{ }^{2}$ mechanism

## SECTION B

## The following questions, Q.No 17 - $\mathbf{2 5}$ are short answer type and carry 2 marks each.

17. With the help of resonating structures explain the effect of presence of nitro group at ortho position in chlorobenzene.

## OR

Carry out the following conversions in not more than 2 steps:
(i)Aniline to chlorobenzene
(ii)2-bromopropane to 1-bromopropane
18. A glucose solution which boils at $101.04^{\circ} \mathrm{C}$ at 1 atm . What will be relative lowering of vapour pressure of an aqueous solution of urea which is equimolal to given glucose solution? (Given: $K_{\mathrm{b}}$ for water is $0.52 \mathrm{~K} \mathrm{~kg} \mathrm{~mol}^{-1}$ )
19. (i) Using crystal field theory, write the electronic configuration of iron ion in the following complex ion. Also predict its magnetic behaviour :

$$
\left[\mathrm{Fe}\left(\mathrm{H}_{2} \mathrm{O}\right)_{6}\right]^{2+}
$$

(ii)Write the IUPAC name of the coordination complex: $\left[\mathrm{CoCl}_{2}(\mathrm{en})_{2}\right] \mathrm{NO}_{3}$

## OR

(i)Predict the geometry of $\left[\mathrm{Ni}(\mathrm{CN})_{4}\right]^{2-}$
(ii)Calculate the spin only magnetic moment of $\left[\mathrm{Cu}\left(\mathrm{NH}_{3}\right)_{4}\right]^{2+}$ ion.
20. For a reaction the rate law expression is represented as follows:

$$
\text { Rate }=\mathrm{k}[\mathrm{~A}][\mathrm{B}]^{1 / 2}
$$

i. Interpret whether the reaction is elementary or complex. Give reason to support your answer.
ii. Write the units of rate constant for this reaction if concentration of $A$ and $B$ is expressed in moles/L.

## OR

The following results have been obtained during the kinetic studies of the reaction:

$$
\mathrm{P}+2 \mathrm{Q} \rightarrow \mathrm{R}+2 \mathrm{~S}
$$

| Exp. | Initial P(mol/L) | Initial Q (mol/L) | Init. Rate of Formation <br> of R (M min |
| :--- | :--- | :--- | :--- |
| 1 | 0.10 | 0.10 | $3.0 \times 10^{-4}$ |
| 2 | 0.30 | 0.30 | $9.0 \times 10^{-4}$ |
| 3 | 0.10 | 0.30 | $3.0 \times 10^{-4}$ |
| 4 | 0.20 | 0.40 | $6.0 \times 10^{-4}$ |

## Determine the rate law expression for the reaction.

21. The C-14 content of an ancient piece of wood was found to have three tenths of that in living trees. How old is that piece of wood? $(\log 3=0.4771, \log 7=0.8540$, Half-life of $\mathrm{C}-14=5730$ years )
22. When 3-methylbutan-2-ol is treated with HBr , the following reaction takes place:


Give a mechanism for this reaction.
23. Give the formula and describe the structure of a noble gas species which is isostructural with $\mathrm{IF}_{6}{ }^{-}$.
24. The following haloalkanes are hydrolysed in presence of aq KOH .
(i) 2-Chlorobutane
(ii) 2-chloro-2-methylpropane

Which of the above is most likely to give a racemic mixture? Justify your answer.
25.Atoms of element P form $c c p$ lattice and those of the element Q occupy $1 / 3$ rd of tetrahedral voids and all octahedral voids. What is the formula of the compound formed by the elements $P$ and Q ?

## SECTION C

## Q.No 26-30 are Short Answer Type II carrying 3 mark each.

26. Give reasons for the following:
i. Transition elements act as catalysts
ii. It is difficult to obtain oxidation state greater than two for Copper.
iii. $\mathrm{Cr}_{2} \mathrm{O}_{7}{ }^{2-}$ is a strong oxidising agent in acidic medium whereas $\mathrm{WO}_{3}$ and $\mathrm{MoO}_{3}$ are not.

## OR

Observed and calculated values for the standard electrode potentials of elements from Ti to Zn in the first reactivity series are depicted in figure (1):


FIGURE 1 (source NCERT)
Explain the following observations:
i. The general trend towards less negative $\mathrm{E}^{\mathrm{o}}$ values across the series
ii. The unique behaviour of Copper
iii. More negative $\mathrm{E}^{\mathrm{o}}$ values of Mn and Zn
27. Arrange the following in increasing order of property specified:
i. Aniline, ethanamine, 2-ethylethanamine (solubility in water)
ii. Ethanoic acid, ethanamine, ethanol (boiling point)
iii. Methanamine, $\mathrm{N}, \mathrm{N}$ - dimethylmethanamine and N - methylmethanamine (basic strength in aqueous phase)

## OR

i. Give a chemical test to distinguish between N-methylethanamine and N,N-dimethyl ethanamine.
ii. Write the reaction for catalytic reduction of nitrobenzene followed by reaction of product so formed with bromine water.
iii. Out of butan-1-ol and butan-1-amine, which will be more soluble in water and why?
28. A metal crystallizes into two cubic system-face centred cubic (fcc) and body centred cubic (bcc) whose unit cell lengths are 3.5 and $3.0 \AA$ respectively. Calculate the ratio of densities of fcc and bcc.
29. Three amino acids are given below:

Alanine $\mathrm{CH}_{3} \mathrm{CH}(\mathrm{COOH})\left(\mathrm{NH}_{2}\right)$ Aspartic acid $\mathrm{HOOC}-\mathrm{CH}_{2} \mathrm{CH}(\mathrm{COOH})\left(\mathrm{NH}_{2}\right)$ and Lysine $\mathrm{H}_{2} \mathrm{~N}$ -$\left(\mathrm{CH}_{2}\right)_{4}-\mathrm{CH}(\mathrm{COOH})\left(\mathrm{NH}_{2}\right)$
i. Make two tripeptides using these amino acids and mark the peptide linkage in both cases.
ii. Represent Alanine in the zwitter ionic form.
30. i. Arrange the following in decreasing order of bond dissociation enthalpy $\mathrm{F}_{2}, \mathrm{Cl}_{2}, \mathrm{Br}_{2}, \mathrm{I}_{2}$
ii. Bi does not form $\mathrm{p} \pi$ - $\mathrm{p} \pi$ bonds. Give reason for the observation.
iii.Electron gain enthalpy of oxygen is less negative than sulphur. Justify

## SECTION D

## Q.No 31 to 33 are long answer type carrying 5 marks each.

31. (i) Answer the following questions:
a) Write the balanced chemical reaction for reaction of Cu with dilute $\mathrm{HNO}_{3}$.
b) Draw the shape of $\mathrm{ClF}_{3}$
(ii) ' X ' has a boiling point of 4.2 K , lowest for any known substance. It is used as a diluent for oxygen in modern diving apparatus. Identify the gas ' X '. Which property of this gas makes it usable as diluent? Why is the boiling point of the gas ' X ' so low?

## OR

(i) Answer the following questions:
a) Arrange the following in the increasing order of thermal stability:

$$
\mathrm{H}_{2} \mathrm{O}, \mathrm{H}_{2} \mathrm{~S}, \mathrm{H}_{2} \mathrm{Se}, \mathrm{H}_{2} \mathrm{Te}
$$

b) Give the formula of the brown ring formed at the interface during the ring test for nitrate.
(ii) A greenish yellow gas ' A ' with pungent and suffocating odour, is a powerful bleaching agent. 'A' on treatment with dry slaked lime it gives bleaching powder. Identify 'A' and explain the reason for its bleaching action. Write the balanced chemical equation for the reaction of ' A ' with hot and concentrated NaOH .
32. An organic compound ' A ' $\mathrm{C}_{8} \mathrm{H}_{6}$ on treatment with dilute $\mathrm{H}_{2} \mathrm{SO}_{4}$ containing mercuric sulphate gives compound ' B '. This compound ' B ' can also be obtained from a reaction of benzene with acetyl chloride in presence of anhy $\mathrm{AlCl}_{3}$. ' B ' on treatment with $\mathrm{I}_{2}$ in aq. KOH gives ' C ' and a yellow compound ' D '. Identify $\mathrm{A}, \mathrm{B}, \mathrm{C}$ and D . Give the chemical reactions involved.

## OR

(i) Write the reaction for cross aldol condensation of acetone and ethanal.
(ii) How will you carry out the following conversions:
a) Benzyl alcohol to phenyl ethanoic acid
b) Propanone to propene
c) Benzene to $m$-Nitroacetophenone
33. (i) State Kohlrausch law.
(ii) Calculate the emf of the following cell at 298 K :
$\mathrm{Al}(\mathrm{s}) / \mathrm{Al}^{3+}(0.15 \mathrm{M}) / / \mathrm{Cu}^{2+}(0.025 \mathrm{M}) / \mathrm{Cu}(\mathrm{s})$
$\left(\right.$ Given $\mathrm{E}^{\circ}\left(\mathrm{Al}^{3+} / \mathrm{Al}\right)=-1.66 \mathrm{~V}, \mathrm{E}^{0}\left(\mathrm{Cu}^{2+} / \mathrm{Cu}\right)=0.34 \mathrm{~V}, \log 0.15=-0.8239, \log 0.025=-$ 1.6020)
(i) On the basis of $\mathrm{E}^{0}$ values identify which amongst the following is the strongest oxidising agent

$$
\begin{aligned}
& \mathrm{Cl}_{2}(\mathrm{~g})+2 \mathrm{e}^{-} \rightarrow 2 \mathrm{Cl}^{-} \quad \mathrm{E}^{0}=+1.36 \mathrm{~V}, \\
& \mathrm{MnO}_{4}^{-}+8 \mathrm{H}^{+}+5 \mathrm{e}^{-} \rightarrow \mathrm{Mn}^{2+}+4 \mathrm{H}_{2} \mathrm{O} \quad \mathrm{E}^{\mathrm{o}}=+1.51 \mathrm{~V} \\
& \mathrm{Cr}_{2} \mathrm{O}_{7^{2-}}{ }^{-}+14 \mathrm{H}^{+}+6 \mathrm{e}^{-} \rightarrow 2 \mathrm{Cr}^{3+}+7 \mathrm{H}_{2} \mathrm{O} \quad \mathrm{E}^{0}=+1.33 \mathrm{~V}
\end{aligned}
$$

(ii) The following figure 2, represents variation of $\left(\Lambda_{m}\right)$ vs $\sqrt{ } \mathrm{c}$ for an electrolyte. Here $\Lambda_{\mathrm{m}}$ is the molar conductivity and c is the concentration of the electrolyte.


Figure 2
a) Define molar conductivity
b) Identify the nature of electrolyte on the basis of the above plot. Justify your answer.
c) Determine the value of $\Lambda_{\mathrm{m}}{ }^{\circ}$ for the electrolyte.
d) Show how to calculate the value of A for the electrolyte using the above graph.

## Class: XII Session: 2020-21

Computer Science (083)
Sample Question Paper (Theory)
Maximum Marks: 70
Time Allowed: 3 hours

## General Instructions:

1. This question paper contains two parts $A$ and $B$. Each part is compulsory.
2. Both Part A and Part B have choices.
3. Part-A has 2 sections:
a. Section - I is short answer questions, to be answered in one word or one line.
b. Section - II has two case studies questions. Each case study has 4 case-based subparts. An examinee is to attempt any 4 out of the 5 subparts.
4. Part- $B$ is Descriptive Paper.
5. Part- $B$ has three sections
a. Section-I is short answer questions of 2 marks each in which two question have internal options.
b. Section-II is long answer questions of 3 marks each in which two questions have internal options.
c. Section-III is very long answer questions of 5 marks each in which one question has internal option.
6. All programming questions are to be answered using Python Language only

| Question No. | Part-A | Marks allocated |
| :---: | :---: | :---: |
|  | Section-I <br> Select the most appropriate option out of the options given for each question. Attempt any 15 questions from question no 1 to 21. |  |
| 1 | Find the invalid identifier from the following <br> a) MyName <br> b) True <br> c) $2 n d N a m e$ <br> d) My_Name | 1 |
| 2 | Given the lists $\mathrm{L}=[1,3,6,82,5,7,11,92]$, write the output of print(L[2:5]) | 1 |
| 3 | Write the full form of CSV. | 1 |
| 4 | Identify the valid arithmetic operator in Python from the following. <br> a) ? <br> b) < <br> c) ** <br> d) and | 1 |


|  |  |  |
| :---: | :---: | :---: |
| 5 | Suppose a tuple T is declared as $\mathrm{T}=(10,12,43,39)$, which of the following is incorrect? <br> a) $\operatorname{print}(\mathrm{T}[1])$ <br> b) $T[2]=-29$ <br> c) $\operatorname{print}(\max (\mathrm{T}))$ <br> d) $\operatorname{print}(\operatorname{len}(T))$ | 1 |
| 6 | Write a statement in Python to declare a dictionary whose keys are 1, 2, 3 and values are Monday, Tuesday and Wednesday respectively. | 1 |
| 7 | A tuple is declared as $\mathrm{T}=(2,5,6,9,8)$ <br> What will be the value of sum $(\mathrm{T})$ ? | 1 |
| 8 | Name the built-in mathematical function / method that is used to return an absolute value of a number. | 1 |
| 9 | Name the protocol that is used to send emails. | 1 |
| 10 | Your friend Ranjana complaints that somebody has created a fake profile on Facebook and defaming her character with abusive comments and pictures. Identify the type of cybercrime for these situations. | 1 |
| 11 | In SQL, name the clause that is used to display the tuples in ascending order of an attribute. | 1 |
| 12 | In SQL, what is the use of IS NULL operator? | 1 |
| 13 | Write any one aggregate function used in SQL. | 1 |
| 14 | Which of the following is a DDL command? <br> a) SELECT <br> b) ALTER <br> c) INSERT <br> d) UPDATE | 1 |
| 15 | Name The transmission media best suitable for connecting to hilly areas. | 1 |
| 16 | Identify the valid declaration of $L$ : L = ['Mon', '23', ‘hello', '60.5'] | 1 |


|  | a. dictionary b. string c.tuple d. list |  |
| :---: | :---: | :---: |
| 17 | If the following code is executed, what will be the output of the following code? <br> name="ComputerSciencewithPython" <br> print(name[3:10]) | 1 |
| 18 | In SQL, write the query to display the list of tables stored in a database. | 1 |
| 19 | Write the expanded form of Wi-Fi. | 1 |
| 20 | Which of the following types of table constraints will prevent the entry of duplicate rows? <br> a) Unique <br> b) Distinct <br> c) Primary Key <br> d) NULL | 1 |
| 21 | Rearrange the following terms in increasing order of data transfer rates. Gbps, Mbps, Tbps, Kbps, bps | 1 |
|  | Section-II <br> Both the Case study based questions are compulsory. Attempt any 4 sub parts from each question. Each question carries 1 mark |  |
| 22 | A departmental store MyStore is considering to maintain their inventory using SQL to store the data. As a database administer, Abhay has decided that : <br> - Name of the database - mystore <br> - Name of the table - STORE <br> - The attributes of STORE are as follows: <br> ItemNo - numeric <br> ItemName - character of size 20 <br> Scode - numeric <br> Quantity - numeric |  |


|  | Table : | ORE |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | ItemNo | ItemName | Scode | Quantity |  |
|  | 2005 | Sharpener Classic | 23 | 60 |  |
|  | 2003 | Ball Pen 0.25 | 22 | 50 |  |
|  | 2002 | Get Pen Premium | 21 | 150 |  |
|  | 2006 | Get Pen Classic | 21 | 250 |  |
|  | 2001 | Eraser Small | 22 | 220 |  |
|  | 2004 | Eraser Big | 22 | 110 |  |
|  | 2009 | Ball Pen 0.5 | 21 | 180 |  |
|  | (a) Identify the a | bute best suitable to | eclared | as a primary key, | 1 |
|  | (b) Write the deg | e and cardinality of ther | ble STO |  | 1 |
|  | (c) Insert the foll SCode respe ItemNo $=20$ | ing data into the attri vely in the given table ItemName = "Note | s ItemN ORE. and S | ItemName and $\text { ode }=25$ | 1 |
|  | (d) Abhay want <br> Which comm <br> a) DELE <br> b) DROP <br> c) DRO <br> d) DELE | remove the table STO <br> d will he use from th <br> FROM store; <br> TABLE store; <br> DATABASE mystore <br> store FROM mysto | from th owing: | database MyStore. | 1 |
|  | (e) Now Abhay name of the used in the $t$ | ts to display the stru ibutes and their resp <br> . Write the query to | of the e data lay the | able STORE, i.e, pes that he has ame. | 1 |
| 23 | Ranjan Kumar of cla which will contain us the following code. given task. <br> import $\qquad$ <br> def addCsvFile(Use CSV file $\mathrm{f}=$ open(' user.csv | 12 is writing a progra name and password a programmer, help me,PassWord): $\qquad$ ') | create some en o succe <br> o write | CSV file "user.csv" ies. He has written sfully execute the <br> \# Line 1 <br> add data into the <br> \# Line 2 |  |


|  | ```newFileWriter = csv.writer(f) newFileWriter.writerow([UserName,PassWord]) f.close() #csv file reading code def readCsvFile(): # to read data from CSV file with open(' user.csv','r') as newFile: newFileReader = csv.``` $\qquad$ <br> ```(newFile) \\ for row in newFileReader: print (row[0], row[1]) \\ newFile.``` $\qquad$ ```None \\ addCsvFile("Arjun","123@456") \\ addCsvFile("Arunima","aru@nima") \\ addCsvFile("Frieda","myname@FRD") \\ readCsvFile() \\ \#Line 5 ``` |  |
| :---: | :---: | :---: |
|  | (a) Name the module he should import in Line 1. | 1 |
|  | (b) In which mode, Ranjan should open the file to add data into the file | 1 |
|  | (c) Fill in the blank in Line 3 to read the data from a csv file. | 1 |
|  | (d) Fill in the blank in Line 4 to close the file. | 1 |
|  | (e) Write the output he will obtain while executing Line 5. | 1 |
|  | Part - B |  |
|  | Section-I |  |
| 24 | Evaluate the following expressions: <br> a) 6 * $3+4^{* *} 2 / / 5-8$ <br> b) $10>5$ and $7>12$ or not $18>3$ | 2 |
| 25 | Differentiate between Viruses and Worms in context of networking and data communication threats. <br> OR <br> Differentiate between Web server and web browser. Write any two popular web browsers. | 2 |
| 26 | Expand the following terms: <br> a. SMTP <br> b. XML <br> c. LAN <br> d. IPR | 2 |


| 27 | Differentiate between actual parameter(s) and a formal parameter(s) with a <br> suitable example for each. <br> Explain the use of global key word used in a function with the help of a <br> suitable example. | 2 |
| :--- | :--- | :--- |
| 28 | Rewrite the following code in Python after removing all syntax error(s). <br> Underline each correction done in the code. | 2 |
| Value=30 |  |  |
| for VAL in range(0,Value) |  |  |
| If val\%4==0: |  |  |
| print (VAL*4) |  |  |
| Elseif val\%5==0: |  |  |
| print (VAL+3) |  |  |
| else |  |  |
| print(VAL+10) |  |  |$\quad$| (iv) |
| :--- |


| 31 | Differentiate between fetchone() and fetchall() methods with suitable examples for each. | 2 |
| :---: | :---: | :---: |
| 32 | Write the full forms of DDL and DML. Write any two commands of DML in SQL. | 2 |
| 33 | Find and write the output of the following Python code: ```def Display(str): m="" for i in range(0,len(str)): if(str[i].isupper()): m=m+str[i].lower() elif str[i].islower(): m=m+str[i].upper() else: if i%2==0: m=m+str[i-1] else: m=m+"#" print(m)``` Display('Fun@Python3.0') | 2 |
|  | Section- II |  |
| 34 | Write a function LShift(Arr,n) in Python, which accepts a list Arr of numbers and n is a numeric value by which all elements of the list are shifted to left. <br> Sample Input Data of the list Arr= [ 10,20,30,40,12,11], n=2 <br> Output $\text { Arr }=[30,40,12,11,10,20]$ | 3 |
| 35 | Write a function in Python that counts the number of "Me" or "My" words present in a text file "STORY.TXT". <br> If the "STORY.TXT" contents are as follows: <br> My first book <br> was Me and | 3 |



|  | Table : Posting |  |
| :---: | :---: | :---: |
|  | P_ID Department $^{\text {P }}$ Place |  |
|  |  |  |
|  | 2 Mathematics Raipur |  |
|  |    <br> 3 Computer Science Delhi |  |
|  | i. SELECT Department, count(*) FROM Teacher GROUP BY Department; <br> ii. SELECT Max(Date_of_Join),Min(Date_of_Join) FROM Teacher; <br> iii. SELECT Teacher.name,Teacher.Department, Posting.Place FROM Teachr, Posting WHERE Teacher.Department $=$ Posting.Department AND Posting.Place="Delhi"; |  |
| 37 | Write a function in Python PUSH(Arr), where Arr is a list of numbers. From this list push all numbers divisible by 5 into a stack implemented by using a list. Display the stack if it has at least one element, otherwise display appropriate error message. <br> OR <br> Write a function in Python POP(Arr), where Arr is a stack implemented by a list of numbers. The function returns the value deleted from the stack. | 3 |
|  | Section-III |  |
| 38 | MyPace University is setting up its academic blocks at Naya Raipur and is planning to set up a network. The University has 3 academic blocks and one Human Resource Center as shown in the diagram below: <br> Center to Center distances between various blocks/center is as follows: | 5 |


|  |  |  | Law | Block to busin | ess Block | 40m |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | block to Tec | ology Block | 80m |  |  |
|  |  |  | Law | Block to HR c | enter | 105m |  |  |
|  |  |  |  | ness Block to | technology | 30m |  |  |
|  |  |  | Bus | ness Block to | HR Center | 35m |  |  |
|  |  |  | Tec | nology block | to HR center | 15 m |  |  |
|  |  | ber of | pu | s in each of | e blocks/Cente | is as follo |  |  |
|  |  |  | Law | Block | 15 |  |  |  |
|  |  |  | Tec | nology Block | 40 |  |  |  |
|  |  |  | HR | center | 115 |  |  |  |
|  |  |  | Bus | ness Block | 25 |  |  |  |
|  |  | ) Suggest the serve <br> ) Suggest wired con <br> ) Which de of these compute ) Suggest with jus ) The univ Delhi, wh type of n Justify your | he mos of th an ide nectiv vice locks with the p ificat rsity ch is twork urans | st suitable pla <br> University w l layout for co ty. <br> ill you sugges centers to effic n these blocks acement of a ion. <br> planning to c more than 125 out of LAN, M wer. | (i.e., Block/C th a suitable re nnecting these <br> to be placed/in iently connect /centers. <br> Repeater in <br> onnect its admi <br> 0 km from unive <br> AN, or WAN wil | nter) to ins son. locks/cent talled in ea ll the e networ sion office sity. Which be formed | ll <br> for a |  |
| 39 | Write relati | QQL comm <br> ns Teache | $\begin{aligned} & \text { ands } f \\ & r \text { and } \end{aligned}$ | or the following <br> Posting given | queries (i) to elow: | based |  | 5 |
|  |  | Teacher |  |  |  |  |  |  |
|  | T_ID | Name | Age | Department | Date_of_join | Salary | Gender |  |
|  | 1 | Jugal | 34 | Computer Sc | 10/01/2017 | 12000 | M |  |
|  | 2 | Sharmila | 31 | History | 24/03/2008 | 20000 | F |  |



SAMPLE QUESTION PAPER 2020-21

CLASS XII ECONOMICS (030)

MM - $\mathbf{8 0}$
TIME: 3 HOURS

General Instructions:

| 1 | This question paper contains two parts: <br> Part A - Macro Economics (40 marks) <br> Part B - Indian Economic Development (40 marks). |
| :--- | :--- |
| 2 | Marks for questions are indicated against each question. |
| 3 | Question No. 1-10 and Question No. 18-27 (including two Case Based Questions) <br> are 1 mark questions and are to be answered in one word/sentence. |
| 4 | Case Based Questions (CBQ's) are Question No. 7-10 and Question No. 25-27. |
| 5 | Question No. 11-12 and Question No. 28-29 are $\mathbf{3}$ marks questions and are to be <br> answered in 60 - 80 words each. |
| 6 | Question No. 13-15 and Question No. 30 - $\mathbf{3 2}$ are 4 marks questions and are to be <br> answered in 80-100 words each. |
| 7 | Question No. 16-17 and Question No. 33 - $\mathbf{3 4}$ are $\mathbf{6}$ marks questions and are to be <br> answered in 100-150 words each. |
| 8 | Answers should be brief and to the point and the above word limit be adhered to as <br> far as possible. |


| Q.No | QUESTIONS | Marks |
| :--- | :---: | :---: |
|  | PART A - MACRO ECONOMICS |  |
| 1 | Inventory is a ..................concept whereas the change in inventory is a <br> $\ldots \ldots . . . . . . . . . . . . . . . ~ c o n c e p t . ~$ <br> a. stock, flow <br> b. flow, stock <br> c. stock, stock <br> d. flow, flow |  |


|  | If in an economy the value of Net Factor Income from Abroad is ₹ 200 crores and the value of Factor Income to Abroad is ₹ 40 crores. Identify the value of Factor Income from Abroad. <br> (Choose the correct alternative) <br> a) ₹ 200 crores <br> b) ₹ 160 crores <br> c) ₹ 240 crores <br> d) ₹ 180 crores | 1 |
| :---: | :---: | :---: |
| 2 | In the present COVID-19 times, many economists have raised their concerns that Indian economy may have to face a deflationary situation, due to reduced economic activities in the country. <br> Suppose you are a member of the high powered committee constituted by the Reserve Bank of India (RBI). <br> You have suggested that as the supervisor of commercial banks, $\qquad$ (restriction/release) of the money supply be ensured, by the Reserve Bank of India (RBI). <br> (Choose the correct alternative) | 1 |
| 3 | Supply of money refers to. $\qquad$ (Choose the correct alternative) <br> a. currency held by the public <br> b. currency held by Reserve Bank of India (RBI) <br> c. currency held by the public and demand deposits with commercial banks <br> d. currency held in the government account | 1 |
| 4 | Identify the correct pair of formula from the following column I and II: <br> (Choose the correct alternative) <br> Alternatives: <br> a) A - i <br> b) B - ii <br> c) C - iii <br> d) D - iv | 1 |
| 5 | Identify which of the following statements is true? (Choose the correct alternative) <br> a. The flexible exchange rate system gives the government more |  |


|  | flexibility to maintain large stocks of foreign exchange reserves. <br> b. In the Managed floating exchange rate system, the government intervenes to buy and sell foreign currencies. <br> c. In the Managed floating exchange rate system, the central bank intervenes to moderate exchange rate fluctuations. <br> d. In the Fixed exchange rate system, market forces fix the exchange rate. | 1 |
| :---: | :---: | :---: |
| 6 | An Indian real estate company receives rent from Google in New York. This transaction would be recorded on. $\qquad$ .side of $\qquad$ account. <br> (Fill up the blanks with correct alternative) <br> a. credit, current <br> c. debit, capital <br> b. credit, capital <br> d. debit, current | 1 |
|  | Read the following news report and answer Questions 7-10 on the basis of the same: <br> The Reserve Bank of India (RBI), cut Repo Rate to $4.4 \%$, the lowest in at least 15 years. Also, it reduced the Cash Reserve Ratio (CRR) maintained by the banks for the first time in over seven years. CRR for all banks was cut by 100 basis points to release ₹ 1.37 lakh crores across the banking system. RBI governor Dr. Shaktikanta Das predicted a big global recession and said India will not be immune. It all depends how India responds to the situation. Aggregate demand may weaken and ease core inflation. <br> The Economic Times; March 27th, 2020 |  |
| 7 | Cut in Repo rate by RBI is likely to $\qquad$ (increase/decrease) the demand for goods and services in the economy. (choose the correct alternative) | 1 |
| 8 | Decrease in Cash Reserve Ratio will lead to. $\qquad$ <br> (choose the correct alternative) <br> a. fall in aggregate demand <br> c.rise in aggregate demand <br> b. no change in aggregate demand <br> d. fall in general price level | 1 |

\begin{tabular}{|c|c|c|}
\hline 9 \& \begin{tabular}{l}
The difference by which actual Aggregate Demand exceeds the Aggregate Demand, required to establish full employment equilibrium is known as. \(\qquad\) .(inflationary gap/deflationary gap). \\
(choose the correct alternative)
\end{tabular} \& 1 \\
\hline 10 \& \begin{tabular}{l}
The impact of 'Excess Demand' under Keynesian theory of income and employment, in an economy are: \\
(choose the correct alternative) \\
a. decrease in income, output, employment and general price level \\
b. decrease in nominal income, but no change in real output \\
c. increase in income, output, employment and general price level \\
d. no change in output/employment but increase in general price level.
\end{tabular} \& 1 \\
\hline 11. \& \begin{tabular}{l}
State with valid reason, which of the following statement is true or false: \\
a. Gross Value Added at market price and Gross Domestic Product at market price are one and the same thing. \\
b. Intermediate goods are always durable in nature.
\end{tabular} \& 3 \\
\hline 12 \& \begin{tabular}{l}
State, giving valid reasons, whether the following statements are true or false: \\
a. Current account in Balance of Payments records only the exports and imports of goods and services. \\
b. Borrowings from abroad are recorded in the Capital Account of the Balance of Payments on the debit side. \\
Or \\
'Trade Deficit must exist if a country is facing a situation of Current Account Deficit'. \\
Defend or refute the statement, with valid argument.
\end{tabular} \& 3

3 <br>

\hline 13 \& | a. Define money multiplier. |
| :--- |
| b. 'Credit creation is inversely related to the reserve deposit ratio'. Justify the given statement, using a hypothetical example. | \& 1

3 <br>

\hline 14 \& | In an economy $\mathrm{C}=200+0.5 \mathrm{Y}$ is the consumption function where C is the consumption expenditure and Y is the national income. Investment expenditure is ₹ 400 crores. |
| :--- |
| Is the economy in equilibrium at an income level ₹ 1500 crores? Justify your answer. | \& 4 <br>

\hline
\end{tabular}

|  | Or <br> Define: i) Ex-Ante Savings <br> ii) Full Employment | $2+2$ |
| :---: | :---: | :---: |
| 15 | 'India's GDP contracted $23.9 \%$ in the April-June quarter of 2020-21 as compared to same period of 2019-20, suggesting that the lockdown has hit the economy hard'. <br> The Hindustan Times, 1st September 2020 <br> State and discuss any two fiscal measures that may be taken by the Government of India to correct the situation indicated in the above news report. | 4 |
| 16 | a. 'Domestic/household services performed by a woman may not be considered as an economic activity'. <br> Defend or refute the given statement with valid reason. <br> b. 'Compensation to the victims of a cyclone is an example of a welfare measure taken by the government'. <br> State with valid reason, should it be included/not included in the estimation of national income of India. <br> Or <br> Suppose the Gross Domestic Product (GDP) of Nation X was ₹ 2,000 crores in 2018-19, whereas the Gross Domestic Product of Nation Y in the same year was ₹ 120,000 crores. If the Gross Domestic Product of Nation X rises to ₹ 4,000 crores in 2019-20 and the Gross Domestic Product of Nation Y rises to ₹ 200,000 crores in 2019-20. <br> Compare the rate of change of GDP of Nations X and Y , taking 2018-19 as base year. | 3 3 |
| 17 | a. Elaborate the objective of 'allocation of resources' in the Government budget. <br> b. Discuss briefly how the Government budget can be used as an effective tool in the process of employment generation. | 3 3 |
|  | PART B - INDIAN ECONOMIC DEVELOPMENT |  |
| 18 | $\qquad$ was the Indian Finance Minister in 1991, acknowledged for his capabilities to steer away the economic crisis looming large on the erstwhile Indian Economy. <br> (Choose the correct alternative) |  |


|  | a. Dr. Subramanian Swamy <br> c. Pranab Mukherjee <br> b. Dr. Manmohan Singh <br> d. Dr. Urjit Patel | 1 |
| :---: | :---: | :---: |
| 19 | India entered the $\qquad$ stage of Demographic Transition after the year 1921. <br> (Choose the correct alternative) <br> a. forth <br> b. second <br> c. third <br> d. first | 1 |
| 20 | Read the following statements - Assertion (A) and Reason (R). Choose one of the correct alternatives given below: <br> Assertion (A): India became an exporter of primary products and an importer of finished consumer and capital goods produced in Britain. <br> Reason (R): Restrictive policies of commodity production, trade and tariff pursued by the colonial government adversely affected the structure, composition and volume of India's foreign trade. <br> Alternatives: <br> a. Both Assertion (A) and Reason (R) are true and Reason (R) is the correct explanation of Assertion (A) <br> b. Both Assertion (A) and Reason (R) are true and Reason (R) is not the correct explanation of Assertion (A) <br> c. Assertion (A) is true but Reason (R) is false. <br> d. Assertion (A) is false but Reason (R) is true. <br> Or <br> Read the following statements - Assertion (A) and Reason (R). Choose one of the correct alternatives given below: <br> Assertion (A): The major policy initiatives i.e. land reforms and green revolution helped India to become self-sufficient in food grains production. <br> Reason (R): The proportion of people depending on agriculture did not decline as expected <br> Alternatives: <br> a. Both Assertion (A) and Reason (R) are true and Reason (R) is the correct explanation of Assertion (A). <br> b. Both Assertion (A) and Reason (R) are true and Reason (R) is not the correct explanation of Assertion (A). <br> c. Assertion (A) is true but Reason (R) is false. | 1 |


|  | d. Assertion (A) is false but Reason (R) is true. |  |
| :---: | :---: | :---: |
| 21 | Read the following statements - Assertion (A) and Reason (R). Choose one of the correct alternatives given below: <br> Assertion (A): Every year government fixes a target for disinvestment of Public Sector Enterprises (PSEs). <br> Reason (R): Disinvestment is an excellent tool for discarding the loss incurring Public Sector Enterprises (PSEs). <br> Alternatives: <br> a. Both Assertion (A) and Reason (R) are true and Reason (R) is the correct explanation of Assertion (A) <br> b. Both Assertion (A) and Reason (R) are true and Reason (R) is not the correct explanation of Assertion (A) <br> c. Assertion (A) is true but Reason (R) is false. <br> d. Assertion (A) is false but Reason (R) is true. | 1 |
| 22 | From the set of events/systems given in column I and corresponding relevant fact given in column II, about China, choose the correct pair of statement: <br> Alternatives: <br> a) A - i <br> b) B-ii <br> c) C - iii <br> d) $\mathrm{D}-\mathrm{iv}$ | 1 |
| 23 | $\qquad$ adopted 'One Child Policy' as a measure to control population. (Choose the correct alternative) <br> a. <br> India <br> c. Pakistan <br> b. <br> China <br> d. Russia | 1 |


|  | Read, the following hypothetical Case Study, carefully and answer the <br> question numbers 24-27 on the base of the same. <br> Since ages, farmers in India have taken recourse to debt. In the earlier times <br> the same was from informal sources. Since independence with the efforts of <br> the government, formal sector has actively come into picture. Farmers <br> borrow not only to meet their investment needs but also to satisfy their <br> personal needs. Uncertainty of income caused by factors likes crop failure <br> caused by irregular rainfall, reduction in ground water table, locust/other <br> pest attack etc. These reasons push them into the clutches of the private <br> money lenders, who charge exorbitant rates of interest which add to their <br> miseries. <br> Various governments in India, at different times for different reasons, <br> introduced debt relief/waiver schemes. These schemes are used by <br> governments as a quick means to extricate farmers from their indebtedness, <br> helping to restore their capacity to invest and produce, in short to lessen the <br> miseries of the farmers across India. The costs and benefits of such debt <br> relief schemes are, however, a widely debated topic among economists. <br> Some economists argue that such schemes are extremely beneficial to the <br> poor and marginalised farmers while others argue that these schemes add to <br> the fiscal burden of the government, others believe that these schemes may <br> develop the expectation of repeated bailouts among farmers which may spoil <br> the credit culture among farmers. |
| :--- | :--- | :--- |
| 24 | Uncertainty of income for farmers in India is majorly caused by <br> $\ldots \ldots . . . . . . . . . ~(i r r e g u l a r ~ r a i n f a l l / u n a v a i l a b i l i t y ~ o f ~ l o a n s) . ~$ |
| 25 | Some economists argue that debt waiver schemes are extremely beneficial to <br> for agricultural purposes to farmers. <br> the poor and marginalised farmers, as these schemes reduce the burden of <br> Development Bank of India) is expected to dispense credit at cheaper rates <br> institutions. .........................(indebtedness/personal expenditures) (Regional Rural Banks / Small Industries |


| 27 | (Regional Rural Banks/ Land Development Banks) is the most prominent body responsible for providing loans for long term land development. | 1 |
| :---: | :---: | :---: |
| 28 | 'India has emerged as a hotspot for medical tourism'. Defend the statement with valid arguments. <br> Or <br> Discuss any two steps taken by the government in the direction of improving agricultural marketing system in India, since independence. | 3 3 |
| 29 | Discuss briefly the concept of 'informalisation of workforce', in the context of Indian economy. | 3 |
| 30 | "Agriculture sector appears to be adversely affected by the economic reform process." Explain the given statement. | 4 |
| 31 | 'Atamnirbhar Bharat' had been at the roots of the Indian planning process in the form of 'self reliance' as an objective of the planning process. <br> Do you agree with the given statement? Justify the rationale of the given statement. <br> Or <br> Discuss briefly any two major steps taken by the Government of India on 'Financial Sector' front under the Economic Reforms of 1991. | 4 4 |
| 32 | Compare and analyse the given data of India and China with valid arguments. <br> Annual Growth of Gross Domestic Product (\%), 1980-2017 <br> Source: Key Indicators for Asia and Pacific 2016, Asian Development Bank, Philippines; World Development Indicators 2018. | 4 |
| 33 | a. 'If the rate of resource extraction exceeds the rate of regeneration, it leads to reduction in carrying capacity of the environment." <br> Discuss the rationale of the given statement with valid reasons. <br> b. 'Calorie-based norm is not an adequate measure to identify the poor. Establish the rationale of the given statement with valid reasons. | 3 3 |


|  | a. Why are less women found in regular salaried employment? <br> b. Analyse the recent trends in sectoral distribution of workforce in India: <br> Trends in Employment Pattern (Sector wise), 1993-2012 (in \%) | 2 |
| :---: | :---: | :---: |
|  | Sector $\quad 1993-94$ 1999-2000 ${ }^{\text {2011-2012 }}$ | 4 |
|  | Primary 64 60.4 24.3 |  |
|  | Secondary 16 15.8 24.3 |  |
|  | Services 20 23.8 26.8 |  |
| 34 | State, giving valid reasons whether the following statements are true or false. <br> a. Since independence, the benefits of the increase in economic growth in India have trickled down to the people at the bottom of population pyramid. <br> b. Human Capital Formation gives birth to innovation, invention and technological improvements. <br> c. There exists an inverse correlation between infrastructural growth and national income. | 2 2 2 |

# SAMPLE QUESTION PAPER (2020-21) <br> ENGLISH - Core <br> CLASS-XII (Rationalised syllabus) 

## Time allowed: 3 Hrs.

Maximum Marks: 80

## General Instructions:

1. This paper is divided into two parts: A and B. All questions are compulsory.
2. Separate instructions are given with each section and question, wherever necessary. Read these instructions very carefully and follow them.
3. Do not exceed the prescribed word limit while answering the questions.

## Part A (40 Marks)

## READING

1. Read the passage given below.
$(1 \times 10=10)$
2. "Who doesn't know how to cook rice? Cooking rice hardly takes time." said my father. So, I challenged myself. I switched from news to YouTube and typed, "How to cook rice?" I took one and a half cups of rice. Since I didn't have access to a rice cooker, I put the rice in a big pot. Firstly, the rice has to be washed to get rid of dust and starch. I thought I won't be able to drain the rice and that it will fall out of the pot. I observed the chef as I swirled the rice around and used my dexterous hands to drain it, not once, not twice, but three times. I looked down at the sink and saw less than 50 grains that made their way out of the pot. Suffice to say, I was up to the mark.
3. The video stated that the key to perfect rice is equal amounts of rice and water. I have heard that professionals don't need to measure everything; they just know what the right amount is. But as this was my first time in the kitchen, I decided to experiment by not measuring the water needed for boiling the rice. I wanted the rice to be firm when bitten, just like pasta. I don't enjoy the texture of mushy rice. It has to have that chutzpah; it has to resist my biting power just for a bit before disintegrating.
4. After what seemed like 10 minutes, all the water disappeared. I went in to give it a good stir. To my surprise, some of the rice got stuck to the pot. I tried to scrape it off but to no avail. At the same time, there was a burning smell coming from it. I quickly turned the stove off. "What have you done to the kitchen?" shouted Mother, while coming towards the kitchen. I managed to ward her off.
5. Finally, when the time came to taste my creation, I was surprised! It wasn't bad at all. The rice had the desired consistency. Sure, a little more salt would've been better, but I just added that while eating. The experience was fairly rewarding and memorable. It taught me a new sense of respect for those who cook food on a regular basis at home or engage in gourmet creations professionally.

## On the basis of your understanding of the above passage, answer ANY TEN questions from the eleven given below.

i. Father's question to the narrator, about knowing how to cook rice, was intended to
a. criticize the narrator's lack of abilities.
b. make the process sound simple.
c. encourage the narrator to take up cooking.
d. showcase his own expertise in cooking rice.
ii. "I switched from news to YouTube ..." Pick the option in which the meaning of 'switch(ed)' is NOT the same as it is in the passage.
a. He switched on the radio to listen to the news while having dinner.
b. "Forget these diet supplements and switch to yoga, if you want a true sense of well-being."
c. Mom switched to reading fiction recently because she was bored with cook-books.
d. The company will switch the trucks to other routes to bring down city pollution.
iii. Based on your understanding of the passage, choose the option that lists the correct sequence of the process.

1. Use water to wash the rice.
2. Repeat the process three times.
3. Drain the water off.
4. Put rice in a utensil.
5. Swirl the water in and around the rice.
a. $4,2,1,3,5$
b. $1,3,2,5,4$
c. $4,1,5,3,2$
d. $5,1,2,4,3$
iv. The narrator says that he has dexterous hands. He would have had a problem had it been the opposite. NOT BEING dexterous means, being
a. uncomfortable.
b. clumsy.
c. unclear.
d. clueless.
$\mathbf{v} \mathbf{a}$. Which option represents the correct ratio of water to rice for cooking 'perfect rice'?

(1)

(2)

(3)

(4)
a. Image 1
b. Image 2
c. Image 3
d. Image 4

## FOR VISUALLY IMPAIRED CANDIDATES IN LIEU OF Q va

$\mathbf{v} \mathbf{b}$.Which option represents the correct ratio of water to rice for cooking 'perfect rice'?
a. $50 \%$ water: $50 \%$ rice
b. $70 \%$ water: $30 \%$ rice
c. $25 \%$ water: $75 \%$ rice
d. $45 \%$ water: $55 \%$ rice
vi. How did mother react to the burning smell?
a. She commented on it.
b. She brushed it aside.
c. She enquired about it.
d. She handled it .
vii. According to the passage, the fact that the narrator risked experimentation, on his maiden attempt in the kitchen, shows that he was
a. conscientious.
b. nervous.
c. presumptuous.
d. courteous.
viii. Pick the option showing the CORRECT use of the word 'chutzpah'.
a. It is the court's duty to dispense chutzpah to everyone irrespective of caste or creed.
b. The speaker may not have much of a stage presence, but you've got to admit she's got chutzpah.
c. I could crack the code easily which proved me to be a chutzpah and I was the only one who could do so.
d. After his father's demise, the daughter took over the family's chutzpah to save it from disaster.
ix. Pick the option that correctly states what DID NOT happen after the writer checked on the rice.
a. Turning the stove off.
b. Being taken aback at the condition of rice.
c. Forgetting to scrape the stuck rice.
d. Smelling the delicious aroma of cooked rice.
x. The narrator's creation was
a. almost perfect to taste.
b. way off from what he wanted.
c. overly seasoned.
d. quite distasteful.
xi. Pick the option that correctly lists the final feelings of the writer with reference to the cooking experience.

1. frustrating
2. amusing
3. satisfying
4. disillusioning
5. exacting
6. enlightening
a. 1 and 4
b. 2 and 5
c. 3 and 6
d. 1 and 3

## 2.A Read the passage given below.

1. The present generation is well updated in the use of internet and computers. The rapid development in computer technology and increase in accessibility of the internet for academic purposes has changed the face of education for everyone associated with it. Let's look at the data arising out of a recent survey that was done to ascertain the time spent on utilisation of the computer and internet:

2. At present, many schools and universities have been implementing internet-based learning, as it supplements the conventional teaching methods. The internet provides a wide variety of references and information to academics as well as
scientific researchers. Students often turn to it to do their academic assignments and projects.
3. However, research on the Net is very different from traditional library research, and the differences can cause problems. The Net is a tremendous resource, but it must be used carefully and critically.

4. According to a 2018 Academic Student e-book Experience Survey, conducted by LJ's research department and sponsored by EBSCO, when reading for pleasure, almost 74\% of respondents said they preferred print books for leisure whereas, $45 \%$ of respondents chose e-books rather than the printed versions, for research or assignments.
5. When asked what e-book features make them a favourite for research, the respondents were clear. Having page numbers to use in citations, topped the list (75\%); followed by the ability to resize text to fit a device's screen (67\%); the ability to bookmark pages, highlight text, or take notes for later reference (60\%); downloading the entire e-book (57\%); and allowing content to be transferred between devices (43\%) were the varied responses.

## On the basis of your understanding of the passage, answer ANY TEN questions from the eleven that follow. ( $\mathbf{x 1 0}=10$ )

i. According to the passage, one of the reasons for the recent transformation of education is the:
a. techno-efficiency of the present generation.
b. expanse of courses on technology.
c. simplification of the teaching and learning- method.
d. easy availability of the internet.
ii. Pick the option that lists statements that are NOT TRUE according to the passage.

1. Internet-based education can only complement familiar methods of education.
2. Net-based learning will replace face-to-face education.
3. The resources that the net provides are a danger to the education system.
4. The current times has seen a rise in the convenience of using the internet for academic purposes.
a. $1 \& 2$
b. $3 \& 4$
c. $2 \& 3$
d. $1 \& 4$
iii. The word 'tremendous', as used in paragraph 3, means the same as
a. 'expensive'.
b. 'renowned'.
c. 'innovative'.
d. 'incredible'.
iv. Based on the graphical chart in the passage, choose the option that correctly states the depiction of internet usage for work and for leisure, for once a month.

|  |  |  |
| :---: | :---: | :---: |
| $\square$ Work - Leisure | $\square$ Work - Leisure | - Work - Leisure |
| (1) | (2) Work - Leisure |  |

a. Option (1)
b. Option (2)
c. Option (3)
d. Option (4)
v. "... but it must be used carefully and critically." The idea of being careful and critical while using the internet, is mainly a reference to
a. hardware malfunction.
b. plagiarism.
c. troubleshooting.
d. virus threats.
vi. Based on the given graphical representation of data in the passage, choose the option that lists the statements that are TRUE with respect to the usage of email.

1. The everyday usage of email is more than the everyday usage of computer for personal use.
2. About $18 \%$ people use email once a week.
3. There are a smaller number of email users using it 2-3 times a week than the ones using it once a month.
4. Less than $5 \%$ of people never use the email.
a. 1 and 3
b. 2 and 4
c. 1 and 2
d. 3 and 4
vii. Based on the given graphical chart, pick the option that lists the area of zero response from
respondents.
a. Never using the internet for work and leisure
b. Daily use of the computer for academic activities
c. Writing and receiving emails once a week
d. Using the internet for personal tasks once a month
viii. In the cartoon, the student's reaction reveals that he is $\qquad$ .
a) indignant
b) apologetic
c) obedient
d) inquisitive
ix. Which of the following statements is NOT substantiated by information in paragraph 4 ?
a. About three-quarters of the respondents preferred print books for recreational reading.
b. A little less than a $50 \%$ of the respondents voted for e-books for research or assignments.
c. More than $50 \%$ respondents stated enjoying both versions of books for leisure reading.
d. The survey was intended for understanding the e-book experience among students.
x. According to the 2018 survey, which is the option that correctly displays the features of (A) page numbers for use in citation and
(B) content transfer between devices respectively.

(A) $(\mathrm{B})$
(1)
(2)

(3)


(4)
a. Option (1)
b. Option (2)
c. Option (3)
d. Option (4)
xi. Arrange the given e-book features preferred for research from the least favourite to the most favourite, from the following -
5. downloading the entire e-book.
6. choosing page numbers in citations.
7. highlighting text.
8. resizing text to fit screen.
a. $1,3,4,2$
b. $3,2,1,4$
c. $2,4,3,1$
d. $4,1,2,3$

## FOR VISUALLY IMPAIRED CANDIDATES IN LIEU OF Q2A

## 2.B Read the passage given below. On the basis of your understanding of the passage, answer ANY TEN questions from the eleven that follow. <br> (1x10 $=10$ )

1. The present generation is well updated in the use of internet and computers. The rapid development in computer technology and increase in accessibility of the internet for academic purposes has changed the face of education for everyone associated with it.
2. A recent survey that was done to ascertain the time spent on utilisation of the computer and internet revealed the following results:
For all five usage reasons - academics, personal use, e-mail access, work, and leisure - at least half the respondents indicated daily activity. Almost everyone said that they use these facilities at least once a month for leisure, with $30 \%$ saying they use it once a week. All respondents said that they had used computers for work at least once and very few (less than 10\%) said that they had never used e-mail. 50\% students said that they use the computer and the internet for academic reasons on a daily basis and over $20 \%$ stated doing so 2-3 times a week. Only $1 \%$ confessed to never having used these services for academics.
3. The internet provides a wide variety of references and information to academics as well as scientific researchers and students. However, research on the Net is very different from traditional library research, and the differences can cause problems. The Net is a tremendous resource, but it must be used carefully and critically.
4. According to a 2018 Academic Student e-book Experience Survey, when reading for pleasure, almost 74\% of respondents said they preferred print books for leisure where-
as, $45 \%$ of respondents chose e-books rather than the printed versions, for research or assignments.
5. When asked what e-book features make them a favourite for research, the respondents were clear. Having page numbers to use in citations, topped the list (75\%); followed by the ability to resize text to fit a device's screen (67\%); the ability to bookmark pages, highlight text, or take notes for later reference (60\%); downloading the entire e-book (57\%); and allowing content to be transferred between devices (43\%) were the varied responses.
i. According to the passage, one of the reasons for the recent transformation of education is the:
a. techno-efficiency of the present generation.
b. expanse of courses on technology.
c. simplification of the teaching and learning- method.
d. easy availability of the internet.
ii. Pick the option that lists statements that are NOT TRUE according to the passage.
6. Internet-based education can only complement familiar methods of education.
7. Net-based learning will replace face-to-face education.
8. The resources that the net provides are a danger to the education system.
9. The current times has seen a rise in the convenience of using the internet for academic purposes.
a. $1 \& 2$
b. $3 \& 4$
c. $2 \& 3$
d. $1 \& 4$
iii. The word 'tremendous', as used in paragraph 3, means the same as
a. 'expensive'.
b. 'renowned'.
c. 'innovative'.
d. 'incredible'.
iv. Choose the option that CORRECTLY states the relationship between those who never use the internet and/or computers for work, and those who don't use them for academic purposes.
a. An equal number totally avoid computers for work and academics.
b. They are both $40 \%$ or above, but zero computer use is less common at work.
c. Under $5 \%$ study without computers, but all reported usage for work at least once.
d. Zero computer use in academics is 5 times more common than zero use at work.
v. "... but it must be used carefully and critically." The idea of being careful and critical while using the internet, is mainly a reference to
a. hardware malfunction.
b. plagiarism.
c. troubleshooting.
d. virus threats.
vi. Based on the given data in the passage, choose the option that lists the statements that are TRUE with respect to the usage of email.
10. At least $50 \%$ of the participants reported using e-mail every day.
11. Less than $10 \%$ of the participants said they use e-mail once a week.
12. Computer/Internet usage for work and e-mail was exactly the same in all cases.
13. A very small number of those surveyed said that they had never used e-mail.
a. 1 and 3
b. 2 and 3
c. 1 and 4
d. 2 and 4
vii. Based on the given statistics, pick the option that is TRUE for all usage reason categories (academics, personal use, e-mail access, work, and leisure.)
a. Exactly $50 \%$ people use computers/the internet every day.
b. Weekly usage is more popular than monthly usage.
c. There's always at least one person who never uses the computer/internet.
d. 2-3 times a week is always the option chosen by the majority.
viii. What does change the face of something mean, as used in paragraph 1 - '...changed the face of education for one and all'?
a. The problems that people associate with an organisation, industry etc.
b. The popularity of an organisation, industry etc. and the reasons for it.
c. The approaches that people apply to compete with an organisation, industry etc.
d. The nature of an organization, industry etc. and the way it appears to people
ix. Which of the following statements is NOT substantiated by information in paragraph 4 ?
a. About three-quarters of the respondents preferred print books for recreational reading.
b. A little less than a $50 \%$ of the respondents voted for e-books for research or assignments.
c. More than $50 \%$ respondents stated enjoying both versions of books for leisure reading.
d. The survey was intended for understanding the e-book experience among students.
$\mathbf{x}$. Which of the following is TRUE according to the 2018 survey, about e-books?
a. Content transfer between devices was the most popular reason followed by text-to-screen resizing options.
b. The book download option was a close second to the bookmarking, highlighting, and note taking ability reason.
c. Text-to-screen resizing and having page numbers handy for easier citations were both equally popular reasons.
d. Bookmarking, highlighting and note taking ability did not add much value compared to the other reasons.
xi. Arrange the given e-book features preferred for research from the least favourite to the most favourite, from the following -
14. downloading the entire e-book.
15. choosing page numbers in citations.
16. highlighting text.
17. resizing text to fit screen.
a. $1,3,4,2$
b. $3,2,1,4$
c. $2,4,3,1$
d. $4,1,2,3$

## LITERATURE

3. Read the extracts given below and attempt ANY TWO of the three given by answering the questions that follow. $(4+4=8)$

## (A)

Food is more important for survival than an identity. "If at the end of the day we can feed our families and go to bed without an aching stomach, we would rather live here than in the fields that gave us no grain," say a group of women in tattered saris when I ask them why they left their beautiful land of green fields and rivers. Wherever they find food, they
pitch their tents that become transit homes. Children grow up in them, becoming partners in survival. And survival in Seemapuri means rag-picking. Through the years, it has acquired the proportions of a fine art. Garbage to them is gold. It is their daily bread, a roof over their heads, even if it is a leaking roof. But for a child it is even more.
i. The phrase 'transit homes' refer to the dwellings that are
a. unhygienic.
b. inadequate.
c. fragile.
d. temporary.
ii. Identify the figure of speech used in the sentence "Garbage to them is gold".
a. hyperbole
b. simile
c. synecdoche
d. personification
iii. Choose the term which best matches the statement 'Food is more important for survival than an identity."?
a. immorality
b. necessity
c. obligation
d. ambition
iv. What does 'acquired the proportions of a fine art' mean?
a. Rag-picking has regained its lost status.
b. A segment of ragpickers are skilled in fine arts.
c. Rag-picking has attained the position of a skill.
d. Only a few people are experts in rag-picking.

## (B)

They had merely heard that a Mahatma who wanted to help them was in trouble with the authorities. Their spontaneous demonstration, in thousands, around the courthouse was the beginning of their liberation from fear of the British. The officials felt powerless without Gandhi's cooperation. He helped them regulate the crowd. He was polite and friendly. He was giving them concrete proof that their might, hitherto dreaded and unquestioned, could be challenged by Indians. The government was baffled. The prosecutor requested the judge to postpone the trial. Apparently, the authorities wished to consult their superiors.
i. The officials felt powerless because
a. of Gandhi's refusal to cooperate with them.
b. of Gandhi's polite and friendly behaviour.
c. the crowd was listening only to Gandhi.
d. the crowd was getting violent.
ii. The demonstration proved that the
a. policies of the British had failed.
b. dread instilled in the hearts of Indians had begun to lessen.
c. dealings with the Indian citizens had been unsuccessful.
d. might of the British had not been understood by Indians.
iii. Which style, from those given below, is being used by the author, when he says, "Apparently, the authorities wished to consult their superiors."?
a. humourous
b. dramatic
c. sarcastic
d. persuasive
iv. Gandhiji's behaviour towards the British prior to the proposal of postponement of the trial was that of
a. indifference.
b. calm acceptance.
c. ignorance of consequences.
d. polite helpfulness.

## (C)

Jo was starting to fuss with her hands and look out of the window, at the crack of day that showed under the shade. She thought the story was all over. Jack didn't like women when they took anything for granted; he liked them apprehensive, hanging on his words.
"Now, Jo, are you listening?"
"Yes."
"Because this is very interesting. Roger Skunk's mommy said, 'What's that awful smell?'
"Wha-at?"
"And, Roger Skunk said, 'It's me, Mommy. I smell like roses.' And she said, 'Who made you smell like that?' And he said, 'The wizard,' and she said, 'Well, of all the nerve. You come with me and we're going right back to that very awful wizard."
i. Choose the option that best demonstrates the relevant traits of Jo and Jack respectively, based on the extract provided.
a. curious and irritable
b. patient and irritable
c. curious and lethargic
d. patient and lethargic
ii. "Jo was starting to fuss with her hands". This means that Jo was
a. feeling anxious.
b. getting restless.
c. feeling lazy.
d. fighting sleep.
iii. Jo's "Wha-at?" indicated what she was feeling. Pick the option that correctly states these feelings.

1. terror
2. surprise
3. ignorance
4. displeasure
5. joy
6. approval
a. 1 and 3
b. 2 and 4
c. 3 and 6
d. 4 and 5
iv. Mommy says, 'Well, of all the nerve." This reveals her
a. approval, surprise and pleasure.
b. pleasure, hope and approval.
c. betrayal, disapproval and hurt.
d. shock, anger and disapproval.

## 4. Read the extracts given below and attempt ANY ONE of the two given by answering the questions that follow.

## (A)

On sour cream walls, donations. Shakespeare's head, Cloudless at dawn, civilised dome riding all cities. Belled, flowery, Tyrolese valley. Open-handed map Awarding the world its world. And yet, for these Children, these windows, not this map, their world, Where all their future's painted with a fog,
i. What does the expression - sour cream walls - suggest?
a. Display of donated artefacts on the walls.
b. Badly maintained walls.
c. Wall-to wall furniture.
d. A poor choice of paint for walls.
ii. The map of the world in the classroom symbolizes
a. hopes and aspirations of the children.
b. travel plans of the school authorities.
c. a world that is unconnected to the children.
d. interconnectivity within the world.
iii. The expression, Shakespeare's head is an example of
a. pun.
b. satire.
c. parody.
d. irony.
iv. In the extract, 'future's painted with a fog' suggests that the
(a) classroom is as foggy as the paint on the walls.
(b) beautiful valleys are not a part of the children's future.
(c) life ahead for the slum children is as unclear and hazy as fog.
(d) fog often finds itself in the classrooms through broken windows.

## OR

## (B)

We have imagined for the mighty dead;
All lovely tales that we have heard or read;
An endless fountain of immortal drink, Pouring unto us from the heaven's brink.
i. The phrase immortal drink refers to
a. blessings of our ancestors.
b. the teachings of nature.
c. a life-giving force.
d. the beauty of heaven.
ii. 'All lovely tales' evoke the feeling of
a. sadness and nostalgia.
b. only nostalgia.
c. inspiration and pride.
d. only pride.
iii. The rhyme scheme of the above extract is
a. aabb
b. abab
c. aaab
d. abbb
iv. The literary device used by the poet in the following lines is $\qquad$ .
An endless fountain of immortal drink,
Pouring unto us from the heaven's brink.
a. personification.
b. allegory.
c. imagery.
d. synecdoche.

## 5. Attempt ANY EIGHT questions from the ten given below.

i. The writer tones down the philosophical load inherent in 'The Rattrap' with the inclusion of
a. ironical situations.
b. satirical dialogues.
c. classical references.
d. humour and wit.
ii. Choose the statement that is NOT TRUE with reference to Douglas
a. Douglas's fear kept him away from leisurely activities in water.
b. The fall in the pool at YMCA taught Douglas a life lesson.
c. The fear of drowning was the source of Douglas's anxiety and terror.
d. Douglas decided to practice relentlessly to overcome his fear.
iii. Spender's use of imagery in "His eyes live in a dream, of squirrel game, in tree room, other than this", brings out
a. the similarity between the frail bodies of a squirrel and the children in the classroom.
b. the contrast between studying in the dreary classroom and playing outside freely.
c. the comparison of the dingy home of the squirrel and the dreary classroom.
d. the difference between the games of the squirrel and those of the children.
iv. Keats celebrates trees as a "boon" in the poem A Thing of Beauty. With reference to this statement, which of the following options is NOT TRUE?
a. Trees give us sustenance.
b. Trees provide relief from heat.
c. Trees help keep the Earth clean.
d. Trees appear beautiful to the eye.
v. Concluding his last lesson by writing 'Vive la France!' on the blackboard shows that M. Hamel
a. was overwhelmed with emotions.
b. wanted to distract all attending class that day.
c. was keen on not leaving the country.
d. wanted to teach French participles through it.
vi. Rajkumar Shukla's efforts resulted in Gandhiji's fight for the farmer's cause. This showcases that he was
a. meticulous and kind.
b. sincere and curious.
c. enterprising and persistent.
d. respectful and congenial.
vii. It is clear that the speaker in Aunt Jennifer's Tigers has an attitude of towards her.
a. empathy
b. wonder
c. sympathy
d. gratitude
viii. 'Keeping Quiet' uses fishermen to symbolize man's
a. persistent pollution of the natural environment.
b. rapid degradation of human values.
c. limitless exploitation of natural resources.
d. constant participation in acts of terror.
ix. Saheb's discarded and worn out tennis shoes are
a. an indication to procure different ones.
b. a dream come true.
c. a sign of his poverty.
d. an insult to the sport itself.
x. In the poem, My Mother at Sixty-six, all that the poet did was smile and smile and smile..., Her smile is
a. sudden, in response to her mother's.
b. meaningful and loaded with love.
c. accompanied with tears of farewell.
d. put on to cheer her mother.

## PART B (40 marks)

## WRITING

6. Attempt ANY ONE of the following.
analysis, using appropriate format and fluency, appropriacy of style and tone
(A) You are Sameera/Sameer the owner of Pink Power, a café run only by women. You are looking for an interior designer to design the interiors of the café. Draft a suitable advertisement for the same, in about 50 words to be published in the classified columns of the National Daily, the local newspaper.

## OR

(B) You are Rachael/Rueben, President of the Wellness Cell of your school. You decide to organise a workshop, to raise awareness of the importance of mental health. This workshop would be conducted by the school counsellor. Write a notice in about 50 words, informing the students of class XI-XII about the workshop.
7. Attempt ANY ONE of the following. (1x 3$)$
analysis, using appropriate format and fluency, appropriacy of style and tone
(A) You are Dr. Stanzin, a certified art therapist from Leh. You have been invited by G. D Public School, Jammu, to conduct a seminar for students on 'Art Therapy the Way Forward". This seminar is to introduce students to the usefulness of art in
dealing with personal and social problems. Write your reply, in about 50 words accepting the invitation.

## OR

(B) You are Rukmini/ Raja of R-201, Fort Road, Chennai. You have just purchased a new house. You decide to have a house-warming ceremony and invite your cousin Balaji. Write the invitation in 50 words giving all necessary details.
8. Attempt ANY ONE of the following.
analysis, using appropriate format and fluency, appropriacy of style and tone
(A) You are Shubha/Krushna Mohanty, residing in Subhadra Apartments, Bhuvneshwar, Orissa. You have observed, with increasing concern, that garbage collection continues to be done without segregation in your neighbourhood. Write a letter to the editor of The Real Times, Bhuvneshwar, in about 120-150 words, explaining your concern along with the rationale behind the importance of garbage segregation. Suggest ways in which the R.W.A s can participate in this program.

## OR

(B) You are Aami/ Ajoy Sarkar of 83, Model Town, Guwahati, Assam. You are a sports enthusiast. Rangshala School, Guwahati, has advertised the requirement of a Sports teacher, in the local newspaper. You are excited and decide to apply for the post. Write a letter in 100-120 words, responding to the given advertisement, submitting your candidature with a detailed bio-data.


SPORTS TEACHER NEEDED A P.T.I needed (B.P.Ed); national level player; coaching experience preferred. Specialisation in volleyball/ hockey - a pre-requisite. Salary inclusive of PF. Apply with bio-data , addressed to the principal at 108, Model Town, Guwahati.
9. Attempt ANY ONE of the following.
evaluation, using appropriate format and fluency, appropriacy of style and tone
(A) While reading about new places and searching for them online has its merits, the advantages of actually travelling to various destinations far exceed them. Write an article in 120-150 words for the magazine Travel Times, evaluating both these options. You may use the cues given below along with your own ideas. You are Amrit/ Amrita.

- Builds confidence
- Make friends and memories
- Experience new cultures
- Expands knowledge


## OR

(B) Ranikhet district, Uttarakhand, on the occasion of Basant Panchami celebrations had organized a three-day cultural festival. You are Bhupinder/ Priyanka Bhisht. Your newspaper had deputed you to cover the inaugural event of this festival. As a newspaper reporter, use the given cues along with your own ideas to write a report about the same in 120-150 words.

- Big crowds -main grounds of the marketplace
- Colourful decorations
- Inauguration-local panchayat member to inaugurate.
- Folk dance and songs
- Speeches


## LITERATURE

## 10. Attempt ANY FIVE out of the six questions given below, in $30-40$ words each. $(2 \times 5=10)$

i. What does Neruda mean by 'an exotic moment without rush' in his poem, 'Keeping Quiet'?
ii. Explain the metaphor of the rattrap in context of the story by Selma Lagerlöf.
iii. Kamala Das speaks of 'an old familiar ache...' What do you think is the reason for this feeling?
iv. Comment on the significance of the villagers sitting at the back in M. Hamel's classroom.
v. 'Little has moved with time, it seems, in Firozabad.' State any one reason why the writer says this.
vi. How does the poet use the image of 'fingers fluttering through the wool' to highlight Aunt Jennifer's victimisation?
11. Attempt ANY TWO out of the three questions given below in 30-40 words each. ( $2 \times 2=4$ )
i. In his letter to Charley, Sam writes, '...then I got to believing you were right.' What could have made Sam begin to believe?
ii. It was important that the recaptured Evans keep up the façade till the very last moment of his interaction with the Governor. Support this statement with a rationale.
iii. Sadao's acceptance of the General's plan to assassinate Tom was counterproductive to having put him on the path of recovery. Substantiate with reason/s.
12. Attempt ANY ONE of the following questions in $\mathbf{1 2 0 - 1 5 0}$ words
( $1 \times 5=5$ )
(A) The story Deep Water talks about Douglas' attempts to overcome his fear of water. The story can also be viewed as a figurative manifestation of life's many challenges. Elaborate with reference to the text.

## OR

(B) How does the story, 'Rattrap' highlight the importance of community over isolation? Support your rationale with textual evidence.

## 13.Attempt ANY ONE out of the following questions in $\mathbf{1 2 0 - 1 5 0}$ words

(A) Mr. Lamb calls Derek his friend while Derek refuses his affirmation. Would you consider their relationship with each other as friendship? Support your answer with reference to the instance(s) from the text.

## OR

(B) With respect to the events in the story, 'Should Wizard Hit Mommy', who would you support , Wizard or Mommy? Justify your choice.

# प्रतिदर्श प्रश्न पत्र विषय- हिंदी (आधार)2020-21 (विषय कोड- 302) कक्षा- बारहवीं 

## निर्धारित समय-3 घंटे

| सामान्य निर्देशः निम्नलिखित निर्देशों का पालन कीजिए: <br> - इस प्रश्न-पत्र में दो खंड हैं- खंड 'अ' और 'ब'। खंड 'अ' में वस्तुपरक तथा खंड 'ब' में वर्णनात्मक प्रश्न पूछे गए हैं। <br> - खंड 'अ' में कुल 6 प्रश्न पूछे गए हैं, जिनमें कुछ प्रश्नों के वैकल्पिक प्रश्न भी सम्मिलित हैं। दिए गए निर्देशों का पालन करते हुए प्रश्नों के ही उत्तर दीजिए। <br> - खंड 'ब' में कुल 8 प्रश्न पूछे गए हैं, जिनमें कुछ प्रश्नों के वैकल्पिक प्रश्न भी सम्मिलित हैं। दिए गए निर्देशों का पालन करते हुए प्रश्नों के ही उत्तर दीजिए। |  |  |
| :---: | :---: | :---: |
|  | खंड-अ वस्तुपरक-प्रश्न |  |
|  | अपठित गद्यांश | (10) |
| प्रश्न 1. | निम्नलिखित में से किसी एक गद्यांश को ध्यानपूर्वक पढ़ए:दुनिया शायद अभी तक के सबसे बड़े संकट से जूझ रही है। मौजूदा दौर की महामारी ने हर किसी के जीवन में हलचल मचा दी है। इस पर महामारी ने जीवन की सहजता को पूरी तरह बाधित कर दिया है। भारत में इतनी अधिक आबादी है कि इसमें किसी नियम कायदे को पूरी तरह से अमल में लाना अपने आप में एक बड़ी चुनौती है। इसमें महामारी के संक्रमण को रोकने के मकसद से पूर्णबंदी लाग की गई और इसे कमोबेश कामयाबी के साथ अमल में भी लाया गया। लेकिन यह सच है कि जिस महामारी से हम जुझ रहे हैं, उससे लड़ने में मुख्य रूप से हमारे शरीर की प्रतिरोधक क्षमता की ही बड़ी भूमिका है। लेकिन असली चिंता बच्चों और बुजुर्गों की हो आती है। <br> इस मामले में ज़्यादातर नागरिकों ने जागरुकता और सहजबोध की वजह से जरूरी सावधानी बरती है। लेकिन इसके समानान्तर दूसरी कई समस्याएँ खड़ी हुई हैं। मसलन आर्थिक गतिविधियां जिस बुरी तरह प्रभावित हुई हैं, उसने बहुत सारे लोगों के सामने संकट और ऊहापोह की स्थिति पैदा कर दी है। एक तरफ नौकरी और उसकी तनख्वाह पर निर्भर लोगों की लाचारी यह है कि उनके सामने यह आश्वासन था कि नौकरी से नहीं निकाला जाएगा, वेतन नहीं रोका जाएगा, वहीं उनके साथ हुआ उल्टा। नौकरी गई, कई जगहों पर तनख्वाह नहीं मिली या कटौती की गई और किराए के घर तक छोड़ने की नौवत आ गई। इस महामारी का दूसरा असर शिक्षा जगत पर पड़ा है, उसका तार्किक समाधान कैसे होगा, यह लोगों के लिए समझना मुश्किल हो रहा है। खासतौर पर स्कूली शिक्षा पूरी तरह से बाधित होती दिख रही है। यों इसमें किए गए वैकल्पिक इंतज़ामों की वजह से स्कूल भले बंद हों, लेकिन शिक्षा को जारी रखने की कोशिश की गयी है। स्कूल बंद होने पर बहुत सारे शिक्षकों को वेतन की चिंता प्राथमिक नहीं थी, बच्चों के भविष्य की चिंता उन्हें सता रही है। हालांकि एक ख़ासी तादाद उन बच्चों की है, जो लैपटॉप या स्मार्ट फोन के साथ जीते हैं, लेकिन दूसरी ओर बहुत सारे शिक्षक ऐसे भी हैं, जिन्हें कम्प्युटर चलाना नहीं आता। उन सबके सामने चुनौती है ऑनलाइन कक्षाएँ लेने की। सबने हार नहीं मानी और तकनीक को खुले दिल से सीखा। इस तरह फिलहाल जो सीमा है, उसमें पढ़ाई-लिखाई को जारी रखने की पूरी कोशिश की जा रही है। (जनसत्ता से साभार) | $10 \times 1$ $=10$ |
|  | निम्नलिखित में से निर्देशानुसार विकल्पों का चयन कीजिए:- |  |
| (i) | उपरोक्त गदयांश किस विषयवस्तु पर आधारित है? <br> I. बेरोजगारी\| <br> II. शिक्षा की समस्या\| | 1 |


|  | III. आर्थिक संकट\| <br> IV. महामारी का प्रभाव\| |  |
| :---: | :---: | :---: |
| (ii) | पूर्णबन्दी लागू क्यों की गई? <br> ।. संक्रमण को रोकने के लिए। <br> II. लोगों की आवा-जाही रोकने के लिए। <br> III. नियम लागू करने के लिए\| <br> IV. लोगों द्वारा नियम नहीं मानने के कारण\| | 1 |
| (iii) | हमें बच्चों और बुजुर्गों की चिंता क्यों है? <br> ।. कमजोर और अक्षम होने के कारण\| <br> II. प्रतिरोधक क्षमता के अभाव के कारण\| <br> III. अधिक बीमार रहने के कारण\| <br> IV. बीमारी का अधिक प्रभाव पड़ने के कारण\| | 1 |
| (iv) | स्कूली शिक्षा को जारी रखने की कोशिश क्यों की जा रहीहै? <br> ।. प्राइवेट स्कूल के दवाब के कारण\| <br> II. शिक्षा जारी रखने के लिए\| <br> III. बच्चों की चिंता के कारण\| <br> IV. शिक्षकों के वेतन के लिए\| | 1 |
| (v) | ऑनलाइन शिक्षा एक चुनौती कैसे है? <br> ।. शिक्षक की अकुशलता के कारण\| <br> II. तकनीकी रूप से योग्य नहीं होना\| <br> III. साधन नहीं होने के कारण\| <br> IV. अभिभावकों की रुचि नहीं होना\| | 1 |
| (vi) | शिक्षकों ने तकनीक को खुले दिल से क्यों सीखा? <br> ।. ऑनलाइन पढ़ाने की मजबूरी के कारण\| <br> II. अपनी सैलरी के कारण\| <br> III. बच्चों की चिंता के कारण\| <br> IV. अभिभावकों के भय से\| | 1 |
| (vii) | महामारी के समय में भी शिक्षकों ने शिक्षक होने का बोध कराया है- कैसे? <br> ।. बच्चों की शिक्षा की चिंता द्वारा\| <br> II. अपनी नौकरी की चिंता द्वारा\| <br> III. अपनी सैलरी की चिंता द्वारा\| <br> IV. तकनीक सीखने की हिम्मत द्वारा\| | 1 |
| (viii) | जीवन की सहजता के बाधित होने से आप क्या समझते हैं? <br> ।. जीवन में कठिनाई उत्पन्न हो जाना\| <br> II. जीवन में संकट उत्पन्न हो जाना\| <br> III. जीवन में संघर्ष का बढ़ जाना\| <br> IV. जीवन में आराम नहीं होना\| | 1 |
| (ix) | भारत में नियम-कानून लागू करना चुनौती क्यों है? | 1 |


|  | I. लोग अधिक होने से\| <br> II. अनपढ़ होने से। <br> III. नियम नहीं मानने से\| <br> IV. नियम-कानून की समझ नहीं होने से। |  |
| :---: | :---: | :---: |
| (x) | लोगों के जीवन में उहापोह की स्थिति कैसे आ गई? <br> I. महामारी आ जाने से\| <br> II. आर्थिक गतिविधियां ठप हो जाने से\| <br> III. नौकरी चले जाने से\| <br> IV. तन्ख्वाह नहीं मिलने से\| | 1 |
|  | अथवा |  |
|  | गद्यांश को ध्यानपूर्वक पढ़िए:- <br> एकांत ढूँढने के कई सकारात्मक कारण हैं । एकांत की चाह किसी घायल मन की आह भर नहीं, जो जीवन के काँटों से बिंध कर घायल हो चुका है, एकांत सिर्फ उसके लिए शरण मात्र नहीं। यह उस इंसान की ख्वाइश भर नहीं, जिसे इस संसार में ‘फेंक दिया गया’ हो और वह फेंक दिये जाने की स्थिति से भयभीत होकर एकांत ढूंढ रहा हो। हम जो एकांत में होते हैं, वही वास्तव में होते हैं। एकांत हमारी चेतना की अंतर्वस्तु को पूरी तरह उघाड़ कर रख देता है। अंग्रेजी का एक शब्द है-'आइसोनोफिलिया'। इसका अर्थ है अकेलेपन, एकांत से गहरा प्रेम। पर इस शब्द को गौर से समझें तो इसमें अलगाव की एक परछाई भी दिखती है। एकांत प्रेमी हमेशा ही अलगाव की अभेद्य दीवारों के पीछे छिपना चाह रहा हो, यह जरूरी नहीं। एकांत की अपनी एक विशेष सुरभि है और जो भीड़ के अशिष्ट प्रपंचों में फंस चुका हो, ऐसा मन कभी इसका सौंदर्य नहीं देख सकता। एकांत और अकेलेपन में थोड़ा फर्क समझना जरूरी है। एकांतजीवी में कोई दोष या मनोमालिन्य नहीं होता। वह किसी व्यक्ति या परिस्थिति से तंग आकर एकांत की शरण में नहीं जाता। न ही आतातायी नियति के विषैले बाणों से घायल होकर वह एकांत की खोज करता है। अंग्रेजी कवि लॉर्ड बायरन ऐसे एकांत की बात करते हैं। वे कहते हैं कि ऐसा नहीं कि वे इंसान से कम प्रेम करते हैं, बस प्रकृति से ज्यादा प्रेम करते हैं। <br> बुद्ध अपने शिष्यों से कहते हैं कि वे जंगल में विचरण करते हुए गैंडे की सींग की तरह अकेले रहें। वे कहते हैं-‘प्रत्येक जीव जन्तु के प्रति हिंसा का त्याग करते हुए, किसी की भी हानि की कामना न करते हुए, अकेले चलो-फिरो, वैसे ही जैसे किसी गैंडे का सींग।' हक्सले 'एकांत के धर्म' या ‘रिलीजन ऑफ सोलीट्यूड' की बात करते हैं। वे कहते हैं जो मन जितना ही अधिक शक्तिशाली और मौलिक होगा, एकांत के धर्म की तरफ उसका उतना ही अधिक झुकाव होगा; धर्म के क्षेत्र में एकांत, अंधविश्वासों, मतों और धर्मांधता के शोर से दूर ले जाने वाला होता है। इसके अलावा एकांत धर्म और विज्ञान के क्षेत्र में नई अंतर्दष्टियों को भी जन्म देता है। ज्यां पॉल सार्त्र इस बारे में बड़ी ही खूबसूरत बात कहते हैं। उनका कहना है- 'ईश्वर एक अनुपस्थिति है। ईश्वर है इंसान का एकांत। <br> क्या एकांत लोग इसलिए पसंद करते हैं कि वे किसी को मित्र बनाने में असमर्थ हैं? क्या वे सामाजिक होने की अपनी असमर्थता को छिपाने के लिए एकांत को महिमामंडित करते हैं? वास्तव में एकांत एक दुधारी तलवार की तरह है। लोग क्या कहेंगे इसका डर भी हमें अक्सर एकांत में रहने से रोकता है। यह बड़ी अजीब बात है, क्योंकि जब आप वास्तव में अपने साथ या अकेले होते हैं, तभी इस दुनिया और कुदरत के साथ अपने गहरे संबंध का अहसास होता है। इस संसार को और अधिक गहराई और अधिक समानुभूति के साथ प्रेम करके ही हम अपने दुखदाई अकेलेपन से बाहर हो सकते हैं। (जनसत्ता से साभार) |  |
|  | निम्नलिखित में से निर्देशानुसार विकल्पों का चयन कीजिए:- |  |


| (i) | उपरोक्त गदयांश किस विषयवस्तु पर आधारित है? <br> I. अकेलेपन पर\| <br> II. एकांत पर\| <br> III. जीवन पर\| <br> IV. अध्यात्म पर\| | 1 |
| :---: | :---: | :---: |
| (ii) | एकांत हमारे जीवन के लिए क्यों आवश्यक है? <br> ।. परेशानी से भागने के लिए। <br> II. आध्यात्मिक चिंतन के लिए\| <br> III. स्वयं को जानने के लिए। <br> IV. अशांत मन को शांत करने के लिए। | 1 |
| (iii) | बायरन मनुष्य से अधिक प्रकृति से प्रेम क्यों करते थे? <br> ।. प्रकृति की सुंदरता के कारण\| <br> II. मनुष्य से घृणा के कारण\| <br> III. एकांत प्रेम के कारण\| <br> IV. अकेलेपन के कारण\| | 1 |
| (iv) | दुखद अकेलेपन से कैसे बाहर आया जा सकता है? <br> ।. संसार से प्रेम करके। <br> II. सच्चे दोस्त बनाकर\| <br> III. संसार की वास्तविकता को समझ कर\| <br> IV. संसार से मुक्त होकर\| | 1 |
| (v) | एकांत की खुशब को कैसे महसूस किया जा सकता है? <br> ।. संसार से अलग होकर\| <br> II. भीड़ में नहीं रहकर\| <br> III. एकांत से प्रेम करके\| <br> IV. अकेले रहकर\| | 1 |
| (vi) | गैंडे के सींग की क्या विशेषता होती है? <br> ।. वह किसी को हानि नहीं पहुंचाता\| <br> II. वह सींग नहीं वरन सींग का अपररूप होता है। <br> III. गैंडे अकेले रहते हैं इसलिए सींग भी अकेला रहता है। <br> IV. अपनी दुनिया में मस्त रहना\| | 1 |
| (vii) | धर्म के क्षेत्र में एकांत का क्या योगदान है? <br> I. समर्पण की भावना\| <br> II. पूजा और साधना\| <br> III. धर्मांधता से मुक्ति\| <br> IV. धर्म के वास्तविक स्वरूप की पहचान\| | 1 |
| (viii) | नई अंतर्दृष्टि से आप क्या समझते है? <br> ।. नई खोज\| <br> II. नया अनुसंधान\| <br> III. नई संकल्पना\| <br> IV. नया सिद्धांत। | 1 |
| (ix) | ईश्वर एक अनुपस्थिति है- कैसे? | 1 |


|  | I. ईश्वर कभी दिखाई नहीं देते\| <br> II. ईश्वर कभी उपस्थित नहीं होते\| <br> III. एकांत में ही ईश्वर महसूस होते हैं। <br> IV. ईश्वर होते ही नहीं हैं\| |  |
| :---: | :---: | :---: |
| (x) | एकांत में रहने का अर्थ है ? <br> ।. दोस्त नहीं बना सकना\| <br> II. संसार को जानने का अवसर मिलना\| <br> III. अपने प्रिय लोगों को जानने का अवसर मिलना\| <br> IV. संसार और प्रकृति की सुंदरता को देखना\| | 1 |
| प्रश्न 2. | निम्नलिखित में से किसी एक पद्यांश को ध्यानपूर्वक पढ़िए:-दूर-दूर से आते हैं घन लिपट शैल में छा जाते हैं <br> मानव की ध्वनि सुनकर पल में गली-गली में मंडराते हैं जग में मधुर पुरातन परिचय श्याम घरों में घुस आते हैं, है ऐसी ही कथा मनोहर उन्हें देख गिरिवर गाते हैं! ममता का यह भीगा अंचल हम जग में फ़िर कब पाते हैं अश्रु छोड़ मानस को समझा इसीलिए विरही गाते हैं सुख-दु:ख के मधु-कटु अनुभव को उठो ह्रदय, फुहियों से धो लो, तुम्हें बुलाने आया सावन, चलो-चलो अब बंधन खोलो पवन चला, पथ में हैं नदियाँ, उछल साथ में तुम भी हो लो प्रेम-पर्व में जगा पपीहा, तुम कल्याणी वाणी बोलो! आज दिवस कलरव बन आया, केलि बनी यह खड़ी निशा है; हेर-हेर अनुपम बूँदों को जगी झड़ी में दिशा-दिशा है! बूँद-बूँद बन उतर रही है यह मेरी कल्पना मनोहर, घटा नहीं प्रेमी मानस में प्रेम बस रहा उमड़-घुमड़ कर भ्रान्ति-भांति यह नहीं दामिनी, याद हुई बातें अवसर पर, तर्जन नहीं आज गूंजा है जड़-जग का गूंजा अभ्यंतर! इतने ऊँचे शैल-शिखर पर | $\begin{gathered} 5 \times 1= \\ 5 \end{gathered}$ |


|  | कब से मूसलाधार झड़ी है; सूखे वसन, हिया भीगा है इसकी चिंता हमें पड़ी है! बोल सरोवर इस पावस में, आज तुम्हारा कवि क्या गाए, कह दे श्रृंग सरस रूचि अपनी, निर्झर यह क्या तान सुनाए; बाँह उठाकर मिलो शाल, ये दूर देश से झोंके आए रही झड़ी की बात कठिन यह, कौन हठीली को समझाए! अजब शोख यह बूँदा-बाँदी, पत्तों में घनश्याम बसा है झाँके इन बूँदों से तारे, इस रिमझिम में चाँद हँसा है! जिय कहता है मचल-मचलकर अपना बेड़ा पार करेंगे हिय कहता है, जागो लोचन, पत्थर को भी प्यार करेंगे॥ |  |
| :---: | :---: | :---: |
|  | निम्नलिखित में से निर्देशानुसार विकल्पों का चयन कीजिए:- |  |
| (i) | उपरोक्त काव्यांश का वर्ण्य-विषय क्या है? <br> I. प्रकृति \| <br> II. बादल। <br> III. पावस ऋतु। <br> IV. जन-जीवन\| | 1 |
| (ii) | कवि बार-बार किससे प्रश्न कर रहा है? <br> I. बादल से। <br> II. प्रकृति से\| <br> III. पहाड़ से\| <br> IV. नदी से\| | 1 |
| (iii) | मानव की ध्वनि सुनकर पल में गली-गली में मँडराते हैं- पंक्ति में निहित अलंकार है? <br> I. उपमा\| <br> II. उत्प्रेक्षा\| <br> III. मानवीकरण\| <br> IV. अनुप्रास\| | 1 |
| (iv) | ‘सूखे वसन, हिया भीगा है’ का अर्थ है ? <br> I. पैर भीगे है किन्तु हाथ सूखे हैं। <br> II. अभ्यन्तर हृदय भीग गया है किन्तु कपड़े सूखे हैं। <br> III. तन ऊपर से भीग गया है किन्तु मन सूखा ही रह गया है। <br> IV. मैदान भीगे हैं परन्तु पहाड़ों पर मूसलाधार वृष्टि हो रही है। | 1 |
| (v) | 'केलि बनी यह खड़ी निशा है' का अर्थ है ? | 1 |


|  | ।. रजनी उपहास व क्रीड़ा कर रही है। <br> II. राका केले के वृक्ष की भांति रास्ता रोके खड़ी है। <br> III. रात्रि अपनी छटा के चरम पर पहुंच कर खड़ी है। <br> IV. विभावरी फूलों के हार की भांति खड़े हो स्वागत कर रही है। |  |
| :---: | :---: | :---: |
|  | अथवा |  |
|  | पद्यांश को ध्यानपूर्वक पढ़ें:मैं तो सांसों का पंथी हूं <br> साथ आयु के चलता <br> मेरे साथ सभी चलते हैं <br> बादल भी, तूफान भी <br> कलियां देखीं बहुत, फूल भी <br> लतिकाएं भी तरु भी <br> उपवन भी, वन भी, कानन भी <br> घनी घाटियां, मरु भी <br> टीले भी, गिरि-श्रंग-तुंग भी <br> नदियां भी, निर्झर भी <br> कल्लोलिनियां, कुल्याएं भी <br> देखे सरि-सागर भी <br> इनके भीतर इनकी-सी ही प्रतिमाएं मुस्कातीं <br> हर प्रतिमा की धड़कन में <br> अनगिनत कलाएं गातीं <br> अनदेखी इन आत्माओं से <br> परिचय जनम-जनम का <br> मेरे साथ सभी चलते हैं <br> जाने भी, अनजान भी <br> सूर्योदय के भीतर मेरे <br> मन का सूर्योदय है <br> किरणों की लय के भीतर <br> मेरा आश्वस्त हृदय है <br> मैं न सोचता कभी कौन <br> आराध्य, किसे आराधूं <br> किसे छोड़ दूं और किसे <br> अपने जीवन में बांधूं <br> हग की खिड़की खुली हुई <br> प्रिय मेरा झांकेगा ही <br> मानस-पट तैयार, चित्र <br> अपना वह आंकेगा ही <br> अपनो को मैं देख रहा हूं <br> अपने लघु दर्पण में <br> मेरे साथ सभी चलते हैं <br> प्रतिबिंबन, प्रतिमान भी <br> दूर्वा की छाती पर जितने |  |


|  | चरण-चिह्न अंकित हैं <br> उतने ही आंसू मेरे <br> सादर उसको अर्पित हैं <br> जितनी बार गगन को छूते <br> उन्नत शिखर अचल के <br> उतनी बार हृदय मेरा <br> पथ में एकाकीपन मिलता <br> वही गीत है हिय का <br> पथ में सूनापन मिलता है <br> वही पत्र है प्रिय का <br> दोनों को पढ़ता हूं मैं <br> दोनों को हृदय लगाता <br> दोनों का सौरभ-कण लेकर <br> फिर आगे बढ़ जाता <br> मेरा रक्त, त्वचा यह मेरी <br> और अस्थियां बोलें <br> मेरे साथ सभी चलते हैं <br> आदि और अवसान भी। <br> (केदारनाथ मिश्र 'प्रभात' ) |  |
| :---: | :---: | :---: |
|  | निम्नलिखित में से निर्देशानुसार विकल्पों का चयन कीजिए:- |  |
| (i) | साँसों का मुसाफिर किसे कहा गया है? <br> I. कवि\| <br> II. मनुष्य\| <br> III. प्रकृति\| <br> IV. जीवन\| | 1 |
| (ii) | देखे सरि-सागर भी- पंक्ति में 'सरि-सागर' का अर्थ है? <br> ।. समस्त सागर । <br> II. सरिता-गागर। <br> III. नदी-नीरनिधि। <br> IV. सुर-सागर\| | 1 |
| (iii) | 'मन का सूर्योदय' से आप क्या समझते है? <br> I. खिन्नता। <br> II. प्रसन्नता। <br> III. आसत्रता \| <br> IV. भिन्नता। | 1 |
| (iv) | अपनों को मैं देख रहा हूँ <br> अपने लघु दर्पण में- पंक्ति में लघु दर्पण किसे कहा गया है? <br> I. हृदय\| <br> II. आँखें\| <br> III. मस्तिष्क\| <br> IV. जीवन\| | 1 |
| (v) | जीवन में एकांत को कवि किस रूप में देखता है? | 1 |


|  | I. हृदय का रूप\| <br> II. आँखों के सपने\| <br> III. लघुता के रूप में\| <br> IV. महानता के रूप में\| |  |
| :---: | :---: | :---: |
| प्रश्न संख्या | कार्यालयी हिंदी और रचनात्मक लेखन | अंक <br> (5) |
| प्रश्न 3. | निम्नलिखित में से निर्देशानुसार विकल्पों का चयन कीजिए:- | $\begin{gathered} 5 \times 1= \\ 5 \end{gathered}$ |
| (i) | किसी भी माध्यमों के लेखन के लिए किसे ध्यान में रखना होता है? <br> ।. माध्यमों को। <br> II. लेखक को <br> III. जनता को\| <br> IV. बाजार को। | 1 |
| (ii) | आधुनिक माध्यमों में सबसे पुराना माध्यम है? <br> I. अखबार\| <br> II. रेडियो\| <br> III. टेलीविजन\| <br> IV. सिनेमा\| | 1 |
| (iii) | नेट साउंड किस माध्यम से संबन्धित है? <br> ।. इंटरनेट\| <br> II. टेलीविजन\| <br> III. रेडियो\| <br> IV. सिनेमा\| | 1 |
| (iv) | हिन्दी में नेट पत्रकारिता का आरंभ हुआ. $\qquad$ से? <br> I. भास्कर\| <br> II. जागरण\| <br> III. वेब दुनिया\| <br> IV. प्रभा साक्षी\| | 1 |
| (v) | समाचार लेखन के कितने ककार होते हैं? <br> I. चार\| <br> II. पाँच\| <br> III. छह\| <br> IV. तीन\| | 1 |
| प्रश्न स | पाठ्य-पुस्तक | (10) |
| प्रश्न 4. | निम्नलिखित काव्यांश को ध्यानपूर्वक पढ़िए:अर्ध राति गइ कपि नहिं आयउ। राम उठाइ अनुज उर लायऊ॥ सकहु न दुखित देखि मोहि काऊ। बंधु सदा तव मृदुल सुभाऊ॥ मम हित लागि तजेहु पितु माता\| सहेहु बिपिन हिम आतप बाता|| सो अनुराग कहाँ अब भाई| उठहु न सुनी मम बच बिकलाई॥ | $\begin{gathered} 5 \times 1= \\ 5 \end{gathered}$ |


|  | जौं जनतेउँ बन बंधु बिछोहू\| पितु बचन मनतेउँ नहिं ओहू|| सुत बित नारि भवन परिवारा| होहिं जाहिं जग बारहिं बारा|| अस बिचारि जियँ जागहु ताता| मिलइ न जगत सहोदर भ्राता|| जथा पंख बिनु खग अति दीना| मनि बिनु फनि करिबर कर हीना|| अस मम जिवन बंधु बिनु तोहि| जौं जड़ दैव जिआवै मोही|| |  |
| :---: | :---: | :---: |
|  | निम्नलिखित में से निर्देशानुसार विकल्पों का चयन कीजिए:- |  |
| (i) | राम लक्ष्मण के किस स्वभाव का स्मरण करते हैं? सही विकल्प छाँटिए:- <br> ।. भाईचारा\| <br> II. कोमल\| <br> III. प्रेममयी\| <br> IV. सेवा-भाव\| | 1 |
| (ii) | राम के अनुसार लक्ष्मण ने उनके हित के लिए क्या-क्या सहन किया? सटीक विकल्प छाँटिए:- <br> ।. जंगल में भूख, प्यास, कमज़ोरी\| <br> II. जंगल में सीता-हरण, युद्ध, शक्ति\| <br> III. जंगल में जाड़ा, ताप, आंधी-तूफ़ान\| <br> IV. जंगल में काँटे, जंगली-जानवर, कीट-पतंगे\| | 1 |
| (iii) | इस संदर्भ में किस क्षति को राम ने बड़ी क्षति माना है? <br> ।. भार्या को खो देना\| <br> II. तात का ना आना\| <br> III. भ्राता को खो देना। <br> IV. कपि का ना आना\| | 1 |
| (iv) | लक्ष्मण की अनुपस्थिति में राम को अपना जीवन कैसा प्रतीत होता है? सटीक विकल्प का चयन कीजिए:- <br> ।. निरर्थक। <br> II. अपमानित\| <br> III. लाचार\| <br> IV. कठोर\| | 1 |
| (v) | राम यदि जानते कि वनागमन के क्या परिणाम होंगे, तब वे क्या नहीं करते? सही विकल्प का चयन कीजिए:- <br> I. रावण से युद्ध न करते\| <br> II. लक्ष्मण को वन में साथ न लाते\| <br> III. माँ के वचन का पालन न करते। <br> IV. पिता के वचन का पालन न करते। | 1 |
| प्रश्न 5. | निम्नलिखित गद्यांश को ध्यानपूर्वक पढ़िए:इसी प्रकार स्वतंत्रता पर भी क्या कोई आपत्ति हो सकती है? गमनागमन की स्वाधीनता, जीवन तथा शारीरिक सुरक्षा की स्वाधीनता के अर्थों में शायद ही कोई 'स्वतंत्रता' का विरोध करे\|इसी प्रकार संपत्ति के अधिकार, जीविकोपार्जन के लिए आवश्यक औज़ार व सामग्री रखने के अधिकार जिससे शरीर को स्वस्थ रखा जा सके, के अर्थ में भी 'स्वतंत्रता' पर कोई आपत्ति नहीं हो सकती| तो फिर मनुष्य की शक्ति के सक्षम एवं प्रभावशाली प्रयोग की भी स्वतंत्रता क्यों न प्रदान की जाए? | 5 |


|  | जाति-प्रथा के पोषक, जीवन, शारीरिक-सुरक्षा तथा संपत्ति के अधिकार की स्वतंत्रता को तो स्वीकार कर लेंगे, परंतु मनुष्य के लक्षण एवं प्रभावशाली प्रयोग की स्वतंत्रता देने के लिए जल्दी तैयार नहीं होंगे, क्योंकि इस प्रकार की स्वतंत्रता का अर्थ होगा अपना व्यवसाय चुनने की स्वतंत्रता किसी को नहीं है, तो उसका अर्थ उसे 'दासता' में जकड़कर रखना होगा, क्योंकि 'दासता' केवल कानूनी पराधीनता को ही नहीं कहा जा सकता\| 'दासता' में वह स्थिति भी समिल्लित है जिससे कुछ व्यक्तियों को दूसरे लोगों के द्वारा निर्धारित व्यवहार एवं कर्तव्यों का पालन करने के लिए विवश होना पड़ता है। यह स्थिति कानूनी पराधीनता न होने पर भी पाई जा सकती है| उदाहरणार्थ, जाति प्रथा की तरह ऐसे वर्ग होना संभव है, जहाँ कुछ लोगों को अपनी इच्छा के विरुद्ध पेशे अपनाने पड़ते हैं| |  |
| :---: | :---: | :---: |
|  | निम्नलिखित में से निर्देशानुसार विकल्पों का चयन कीजिए:- |  |
| (i) | दासता में कौन-सी अवधारणा समिल्लित नहीं है? सही विकल्प का चयन कीजिए:- <br> I. स्वाधीनता के साथ जीना\| <br> II. कानूनी पराधीनता का होना\| <br> III. इच्छा के विरुद्ध कार्य करना\| <br> IV. दूसरों द्वारा निश्चित कार्य करना\| | 1 |
| (ii) | मनुष्य के प्रभावशाली प्रयोग से लेखक का तात्पर्य है: सही विकल्प छाँटिए:- <br> ।. उसे शारीरिक स्वतंत्रता प्रदान की जाए\| <br> II. उसे अपनी इच्छा से कार्य करने की स्वतंत्रता दी जाए\| <br> III. उसे अपनी मर्ज़ी से जाति के चयन का अधिकार मिले। <br> IV. उसे शारीरिक-सुरक्षा तथा संपत्ति का अधिकार दिया जाए\| | 1 |
| (iii) | जाति-प्रथा के पोषक यदि मनुष्य के लक्षण एवं प्रभावशाली प्रयोग की स्वतंत्रता दें, तब इसका क्या परिणाम होगा? सही विकल्प छाँटिए:- <br> ।. दासता को बढ़ावा मिलेगा\| <br> II. स्वतंत्रता को बढ़ावा मिलेगा\| <br> III. कानूनी-पराधीनता बढ़ जाएगी\| <br> IV. लोकतांत्रिक मूल्य सुदढ़ होंगे\| | 1 |
| (iv) | 'स्वतंत्रता' पर किसी को कोई आपत्ति क्यों नहीं है? सही विकल्प छाँटिए:- <br> ।. इससे समाज में दासता समाप्त हो जाएगी\| <br> II. क्योंकि स्वतंत्रता सभी को जाति विरोधी लगती है। <br> III. क्योंकि सभी को स्वतंत्र और सुरक्षित रहना प्रिय है। <br> IV. इसके साथ भी जातिवाद और शोषण की प्रक्रिया बनी रहती है। | 1 |
| (v) | जाति-प्रथा के पोषक से लेखक का क्या तात्पर्य है? सही विकल्प का चयन कीजिए:- <br> ।. जाति के चयन को बढ़ावा देने वाले। <br> II. जातिगत भेदभाव को प्राथमिकता देने वाले। <br> III. जातिगत भेदभाव के व्यवहार को समाप्ति देने वाले। <br> IV. जाति को कानूनी मान्यता दिलाने की कोशिश करने वाले। | 1 |
| प्रश्न | पूरक पाठ्य-पुस्तक | (10) |
| प्रश्न 6. | निम्नलिखित प्रश्नों में निर्देशानुसार विकल्पों का चयन कीजिए:- | 10 |
| (i) | कहानी 'सिल्वर वैडिंग' में किशनदा की मृत्यु के संदर्भ में 'जो हुआ होगा' से कहानीकार का क्या तात्पर्य रहा है? सटीक विकल्प का चयन कीजिए:- | 1 |


|  | I. लेखक मृत्यु से बहुत दुखी है। <br> II. लेखक को मृत्यु का कारण पता है। <br> III. लेखक मृत्यु के कारण से अपरिचित है। <br> IV. लेखक को मृत्यु से कोई अंतर नहीं पड़ता है। |  |
| :---: | :---: | :---: |
| (ii) | "सिंधु-सभ्यता साधन-संपन्र थी, पर उसमें भव्यता का आडंबर नहीं था।" प्रस्तुत पंक्ति से तात्पर्य है: 'अतीत में दबे पाँव' पाठ के आधार पर सटीक विकल्प का चयन कीजिए:- <br> ।. इस सभ्यता में राजा प्रजा की तरह सादगी से रहता था। <br> II. इस सभ्यता में साधन बहुत थे जो देखने में आकर्षक थे। <br> III. इस सभ्यता में सभी प्रकार के साधन थे किंतु दिखावा नहीं था। <br> IV. इस सभ्यता में सभी लोग संपन्न थे और वे दिखावा नहीं करते थे\| | 1 |
| (iii) | किशनदा के रिटायर होने पर यशोधर बाबू उनकी सहायता नहीं कर पाए थे\| क्योंकि: कहानी 'सिल्वर वैडिंग' से सही विकल्प छाँटिए:- <br> ।. यशोधर बाबू की पत्ती किशनदा से नाराज़ थीं। <br> II. क्योंकि यशोधर बाबू के घर में किशनदा के लिए स्थान का अभाव था। <br> III. यशोधर बाबू का अपना परिवार था जिसे वे नाराज़ नहीं करना चाहते थे\| <br> IV. किशनदा को यशोधर बाबू ने अपने घर में स्थान देना चाहा था जिसे किशनदा ने स्वीकार नहीं किया\| | 1 |
| (iv) | 'अतीत में दबे पाँव' पाठ के अनुसार- "सिंधु-सभ्यता की खूबी उसका सौंदर्य-बोध है जो राजपोषित या धर्म-पोषित न होकर समाज-पोषित था\|" ऐसा इसलिए कहा गया है क्योंकि: सही विकल्प छाँटिए:- <br> ।. सिंधु घाटी सभ्यता में सौंदर्य के प्रति चेतना अधिक थी\| <br> II. सिंधु घाटी सभ्यता में राजा से बड़ा स्थान लोगों के कार्यों को था। <br> III. सिंधु घाटी सभ्यता में धर्म का महत्त्व न था, अतः समाज सर्वोपरि था। <br> IV. सिंधु घाटी सभ्यता में अमीर-गरीब न थे, अतः समाज में समानता थी\| | 1 |
| (v) | "टूटे-फूटे खंडहर, सभ्यता और संस्कृति के इतिहास के साथ-साथ धड़कती ज़िंदगियों के अनछुए समयों के भी दस्तावेज़ होते हैं\|" - 'अतीत में दबे पाँव' पाठ के अनुसार इस कथन का भाव हो सकता है: सटीक विकल्प का चयन कीजिए:- <br> ।. ऐतिहासिक इमारतों में बीते हुए जीवन के चिन्ह महसूस होते हैं\| <br> II. ऐतिहासिक इमारतों, कला, खान-पान इत्यादि में सदा जीवंतता होती है। <br> III. पुरातन इमारतों के अध्ययन मात्र से इतिहास की व्याख्या संभव हो पाती है। <br> IV. इतिहास की समझ हेतु केवल सभ्यता और संस्कृति को जानना आवश्यक होता है। | 1 |
| (vi) | 'जूझ' पाठ के अनुसार कविता के प्रति लगाव से पहले और उसके बाद अकेलेपन के प्रति लेखक की धारणा में क्या बदलाव आया? सही विकल्प छाँटिए:- <br> ।. अकेलापन डरावना है। <br> II. अकेलापन उपयोगी है। <br> III. अकेलापन अनावश्यक है। <br> IV. अकेलापन सामान्य प्रक्रिया है। | 1 |
| (vii) | 'डायरी के पन्ने' पाठ की पंक्ति- "प्रकृति-प्रदत्त प्रजनन-शक्ति के उपयोग का अधिकार बच्चे पैदा करें या न करें अथवा कितने बच्चे पैदा करें- इस की स्वतंत्रता स्त्री से छीन कर हमारी विश्व- | 1 |


|  | व्यवस्था ने न सिर्फ़ स्त्री को व्यक्तित्व-विकास के अनेक अवसरों से वंचित किया है बल्कि जनाधिक्य की समस्या भी पैदा की है\|" इस कथन के सटीक औचित्य का चयन कीजिए:- <br> I. नारियों की स्वतंत्रता के हनन से जनसंख्या वृद्धि की समस्या बढ़ी है\| <br> II. नारी की प्रजनन शक्ति ही उसके जीवन का सार है। <br> III. शिक्षित और कामकाजी नारी को व्यक्तिगत निर्णय स्वतः लेने चाहिएँ\| <br> IV. प्रजनन जैसे संघर्षपूर्ण कार्य का निर्णय नारी स्वतः करे\| |  |
| :---: | :---: | :---: |
| (viii) | कहानी ‘सिल्वर वैडिंग’ के अनुसार- "यशोधर बाबू की पत्नी समय के साथ ढल सकने में सफल होती हैं लेकिन यशोधर बाबू असफल रहते हैं\|" यशोधर बाबू की असफलता का क्या कारण था? सही विकल्प का चयन कीजिए:- <br> I. किशनदा उन्हें भड़काते थे। <br> II. पत्नी बच्चों से अधिक प्रेम करती थी\| <br> III. पीढ़ी के अंतराल के कारण\| <br> IV. वे परिवर्तन को सहजता से स्वीकार नहीं कर पाते थे | 1 |
| (ix) | "काश, कोई तो होता जो मेरी भावनाओं को गंभीरता से समझ पाता। अफ़सोस, ऐसा व्यक्ति मुझे अब तक नहीं मिला...।" ‘डायरी के पत्ने' पाठ की पंक्ति में इस कथन का भाव है: सही विकल्प छाँटिए:- <br> I. एन.फ्रेंक किसी संवेदनशील व्यक्ति की खोज में थी\| <br> II. एन.फ्रेंक अकेलेपन से त्रस्त थी और उसे कोई समझ नहीं पा रहा था। <br> III. एन.फ्रेंक एक तहखाने में कैद थी और उसे कोई समझ नहीं पा रहा था। <br> IV. एन.फ्रेंक सबके मज़ाक की पात्र थी और उसे कोई समझ नहीं पा रहा था। | 1 |
| (x) | 'जूझ' पाठ के अनुसार- "पढ़ाई-लिखाई के संबंध में लेखक और दत्ता जी राव का रवैया सही था\|" क्योंकि: सही विकल्प छाँटिए:- <br> ।. लेखक खेती-बाड़ी नहीं करना चाहता था। <br> II. दत्ता जी राव जानते थे कि खेती-बाड़ी में लाभ नहीं है। <br> III. लेखक का पढ़-लिख कर सफल होना बहुत आवश्यक था\| <br> IV. लेखक का पिता नहीं चाहता था कि वह आगे की पढ़ाई करे। | 1 |
|  | खंड 'ब' वर्णनात्मक प्रश्न |  |
|  | कार्यालयी हिंदी और रचनात्मक लेखन | (20) |
| प्रश्न 7. | निम्नलिखित में से किसी एक विषय पर लगभग 150 शब्दों में रचनात्मक लेख लिखिए:- <br> I. अचानक जब हमारी मेट्रो रूक गई <br> II. मसूरी के रास्ते बस का खराब होना <br> III. नदी किनारे बरसात में घिर जाना | 5 |
| प्रश्न 8. | कोरोना के बढ़ते मामले को ध्यान मे रखते हुए अपने कॉलोनी की सुरक्षा के लिए नियमित सेनीटाइज़ की मांग करते हुए अपने नगर निगम के अधिकारियों को पत्र लिखिए। अथवा <br> आपद स्थिति में खाद्य पदार्थों की बढ़ती कीमत की समस्या के प्रति चिंता व्यक्त करते हुए किसी दैनिक समाचार पत्र के संपादक को पत्र लिखिए। | 5 |
| प्रश्न 9. | निम्नलिखित प्रश्नों के उत्तर लगभग 40-50 शब्दों में लिखिए:- | 5 |
| (i) | कविता की रचना के लिए शब्द कितना आवश्यक है? अथवा कहानी में कथानक क्या है? उदाहरण देकर समझाइए। | 3 |


| (ii) | नाटक साहित्य की अन्य विधाओं से अलग कैसे है? <br> अथवा कहानी की रचना में पात्रों की भूमिका स्पष्ट कीजिये। | 2 |
| :---: | :---: | :---: |
| प्रश्न 10. | निम्नलिखित प्रश्नों के उत्तर लगभग 40-50 शब्दों में लिखिए:- | 5 |
| (i) | विशेष लेखन को उदाहरण देकर स्पष्ट कीजिये? अथवा <br> फीचर को आत्मनिष्ठ लेखन कहने के कारणों को स्पष्ट कीजिये। | 3 |
| (ii) | संपादकीय लेखन क्या है? <br> समाचार कैसे लिखा जाता है? | 2 |
| प्रश्न संख्या | पाठ्य-पुस्तक | $\begin{aligned} & \hline \text { अंक } \\ & \text { (20) } \end{aligned}$ |
| प्रश्न 11. | निम्नलिखित प्रश्नों में से किन्हीं दो प्रश्नों के उत्तर लगभग 50-60 शब्दों में लिखिए:- | 6 |
| (i) | 'कवितावली'- के कवितों के आधार पर सिद्ध कीजिए कि तुलसीदास को अपने युग की आर्थिक विषमताओं की अच्छी समझ थी\| | 3 |
| (ii) | 'कैमरे में बंद अपाहिज'- कविता का केंद्रीय भाव अपने शब्दों में प्रकट करें\| | 3 |
| (iii) | 'कविता के बहाने'- कविता के प्रतिपाद्य के बारे में अपनी प्रतिक्रिया प्रस्तुत कीजिए\| | 3 |
| प्रश्न 12. | निम्नलिखित प्रश्नों में से किन्हीं दो प्रश्नों के उत्तर लगभग 30-40 शब्दों में लिखिए:- | 4 |
| (i) | 'उषा'- कविता गाँव की सुबह का गतिशील चित्रण है\| कैसे? | 2 |
| (ii) | भाव सौन्दर्य स्पष्ट कीजिए:जो मुझको बदनाम करें हैं काश वे इतना सोच सकें। मेरा परदा खोले हैं या अपना परदा खोले हैं॥ | 2 |
| (iii) | बच्चे किस बात की आशा में नीड़ों से झाँक रहे होंगे? 'एक गीत'- कविता के आधार पर लिखिए\| | 2 |
| प्रश्न 13. | निम्नलिखित प्रश्नों में से किन्हीं दो प्रश्नों के उत्तर लगभग 50-60 शब्दों में लिखिए:- | 6 |
| (i) | डॉक्टर भीमराव आंबेडकर के भाषण के अंश 'श्रम विभाजन और जातिप्रथा' तथा 'मेरी कल्पना का आदर्श समाज' आपने पढ़े हैं\| जातिप्रथा की समस्या के उन्मूलन का उपाय लोकतांत्रिक मूल्य हैं| सिद्ध कीजिए। | 3 |
| (ii) | पाठ 'काले मेघा पानी दे' तथा कहानी 'पहलवान की ढोलक' ग्रामीण जीवन को उकेरती हैं\| दोनों पाठों की आँचलिक जीवन शैली पर विचार प्रस्तुत कीजिए| | 3 |
| (iii) | निबंध 'बाज़ार दर्शन' के मुख्य पात्र भगत जी और कहानी 'नमक' की नायिका सफ़िया बेगम के चरित्र के मानवीय गुणों में समानताएँ हैं\| किन्हीं दो समानताओं को रेखांकित कीजिए। | 3 |
| प्रश्न 14. | निम्नलिखित प्रश्नों में से किन्हीं दो प्रश्नों के उत्तर लगभग 30-40 शब्दों में लिखिए:- | 4 |
| (i) | लुट्टन पहलवान ढोलक क्यों बजाता था? | 2 |
| (ii) | बाज़ार के जादू के चढ़ने-उतरने का मनुष्य पर क्या प्रभाव पड़ता है? 'बाज़ार दर्शन'- पाठ के आधार पर उत्तर लिखिए\| | 2 |
| (iii) | भक्तिन अपना वास्तविक नाम लोगों से क्यों छुपाती थी? भक्तिन को यह नाम किसने और क्यों दिया? | 2 |

# SAMPLE QUESTION PAPER (2020-2021) 

HISTORY (027)
CLASS-XII
Time Allowed:3hrs
Max. Marks: $\mathbf{8 0}$

## General Instructions:

- Answer all the questions. Some questions have an internal choice. Marks are indicated against each question. This question paper comprises of six sections. - Section A: Question numbers 1 to 16 are objective type questions carrying 1 mark and should be answered in one word or one sentence each (Attempt any 15) -Section B: Question numbers 17 to 19 are Case Based/ Source Based having Multiple Choice questions. Each question has 4 sub-parts. Attempt any three sub-parts from each question.
- Section C:Answer to questions carrying 3 marks (Question 20 to 23) should not exceed 100 words each.
- Section D:Answer to questions carrying 8 marks ( Question 24 to 26) should not exceed 350 words each.
- Section E:Question number 27 to 29 are Source-based questions carrying 5 marks each.
- Section F:Question number 30 is a Map question that includes the identification and location of significant test items. Attach the map with the answer book.


## Section A

Attempt any 15 questions.

| 1 | Ancient Mesopotamian texts refer to copper coming from a place called <br> 'Magan'.Which place were they referring to? | 1 |
| :--- | :--- | :---: |
| 2 | Whom did Ashoka appoint to spread the message of dhamma? | 1 |
| 3 | Read the following information and mention the context in which the statement is <br> connected- <br> "Many Kushana rulers also adopted the title ' devaputra' or 'son of God'." | 1 |
| 4 | Which among the following was a strategy adopted by the Brahmanas to enforce the <br> varna order? <br> A) assert that varna order was a human creation <br> B) advised kings to punish those who violated these norms <br> C) persuaded people that their status was determined by <br> Birth | 1 |
| D) persuaded people that their status was determined by <br> occupations they practised. |  |  |


| 5 | Look at the given image and state what does the symbol of 'stupa' stand for? | 1 |
| :--- | :--- | :--- |
|  |  |  |
| Question For Visually Impaired candidates only: In lieu of Question number 5. |  |  |


| 10 | Given below are two statements, one labelled as Assertion(A) and the other labelled as Reason (R). <br> Assertion (A): Archaeologists suggest that in the north-eastern corner of the urban core rich traders lived. <br> Reason (R): Numerous tombs, mosques, and fine Chinese porcelain have been found here. <br> A) Both (A) and (R) are correct and (R)is the correct explanation of (A) <br> B) Both (A) and (R) are correct, but (R) is not the correct explanation of (A) <br> C) (A) is correct, but (R) is not correct <br> D) (R) is correct, but (A) is not correct | 1 |
| :---: | :---: | :---: |
| 11 | With which Mughal Emperor can we associate ' Alamgir Nama'? <br> A) Aurangzeb <br> B) Shah Jahan <br> C) Humanyun <br> D) Jahangir | 1 |
| 12 | The two artists, Mir Saiyyad Ali and Abdus Samad were brought from Iran to the Mughal court by Emperor $\qquad$ | 1 |
| 13 | Show how the powers of jotedars were more effective than that of zamindars? | 1 |
| 14 | Match the following: <br> List I <br> (i) Delhi <br> (ii) Kanpur <br> (iii) Arrah <br> (iv) Lucknow <br> List II <br> (a) Birjis Qadr <br> (b) Kunwar Singh <br> (c) Bahadur Shah <br> (d) Nana Sahib <br> Options: | 1 |
| 15 | Mahatma Gandhi illustrated his tactical wisdom by picking on salt monopoly .Which of the following statement (s) is/ are correct to prove this? <br> 1.State monopoly over salt was deeply unpopular. <br> 2.People were forbidden from making salt for even domestic use. <br> 3.Salt was not an essential item. | 1 |



## kingship?

(i) means of claiming high status by identifying with a variety of deities
(ii) means of claiming themselves god like
(iii) means of claiming a number of titles
(iv) All of the above
c) Choose the correct option.

Assertion(A) :He is possessed of compassion.
Reason( $R$ ) : He is the giver of many hundred- thousand cows; his mind has received ceremonial initiation for the uplift of the miserable, the poor, the forlorn and the suffering...
(i) Both A and R are correct and R is the correct explanation of A .
(ii) Both $A$ and $R$ are correct but $R$ is not the correct explanation of $A$.
(iii) $A$ is incorrect but $R$ is correct.
(iv) R is incorrect but A is correct.
d) Consider the following statements :
a) Histories of rulers have been reconstructed from literature, coins and inscriptions including prashastis like the one in the excerpt.
b) While historians often attempt to draw factual information from such a composition, those who composed and read them often treasured them as works of poetry rather than as accounts that were literally true. This excerpt is an example of such a case.
Choose the correct option:
(i) Both (a) and (b) are correct.
(ii) Only (b) is correct.
18.

Study this Mughal painting entitled Jahangir's dream carefully and answer any three of the following questions by choosing the correct option:


## a) This Mughal painting is given the name of Jahangir's dream because:

(i) It shows the two rulers Jahangir and Safavid Shah Abbas in a friendly embrace which was Jahangir's desire
(ii) It gave a sense of authenticity to a scene which was fictional as the two rulers had never met
(iii) An inscription on this miniature records that Jahangir commissioned Abu'l Hasan to render in painting a dream the emperor had recently
(iv)All of the above
b)The animals seen in the painting stand for:
(i) a realm in which both the strong(lion) and the weak(lamb) exist in harmony
(ii) an ideal world where animals and humans live together
(iii) Both(i) and (ii)
(iv) None of the above
c) The globe beneath the feet of both the emperors suggests:
(i) the dream of Jahangir(the world seizer) to conquer the whole world by embracing his rival Shah Abbas.
(ii) the globe is used by the painter to provide depth to the painting
(iii) the globe is representing the ideal world of humans and animals existing together
(iv) Both (ii) and (iii)
d) A comparison of the physique and posture of both the emperors in the painting portrays: (i) the superiority of Jahangir over Shah Abbas as shown by the difference in the physical size of their respective portraits
(ii) the dream of Jahangir of embracing his rival Shah Abbas in a friendly manner to retain

Qandahar
(iii) Both (i) and(ii)
(iv) None of the above

## Question For Visually Impaired candidates only: In lieu of Question number 18.

## Read the following text and answer any three of the following questions:

Apart from wives, numerous male and female slaves populated the Mughal household. The tasks they performed varied from the most mundane to those requiring skill, tact and intelligence. Slave eunuchs (khwajasara) moved between the external and Apart from wives, numerous male and female slaves populated the Mughal household. The tasks they performed varied from the most mundane to those requiring skill, tact and intelligence. Slave eunuchs (khwajasara) moved between the external and internal life of the household as guards, servants, and also as agents for women dabbling in commerce.
After Nur Jahan, Mughal queens and princesses began to control significant financial resources. Shah Jahan's daughters Jahanara and Roshanara enjoyed an annual income often equal to that of
high imperial mansabdars. Jahanara, in addition, received revenues from the port city of Surat, which was a lucrative centre of overseas trade.
Control over resources enabled important women of the Mughal household to commission buildings and gardens. Jahanara participated in many architectural projects of Shah Jahan's new capital, Shahjahanabad (Delhi). Among these was an imposing double-storeyed caravanserai with a courtyard and garden. The bazaar of Chandni Chowk, the throbbing centre of Shahjahanabad, was designed by Jahanara.
a) "Mughal Empire was very prosperous during the reign of Shah Jahan." Which of the following statement justifies it?
i) Nur Jahan began to have control over financial resources
ii) Jahanara and Roshanara had a very high annual income.
iii) Roshanara spent a large part of her income in building of a caravanserai.
iv) Roshanara made a huge profit from the lucrative overseas trade.
b) Mughal queens and princesses were able to participate in economic activities despite being confined to the harem because:
i) Male slaves helped them in the economic activities
ii) Slave eunuchs acted as agents for them
iii) Mansabdars were deputed to help them in these activities
iv) Female slaves helped them in the economic activities
c)"Jahanara Begum defied all stereotypes associated with women ." Which of the following statement justifies this?
i) She took complete charge of the Mughal household
ii) She participated in domestic conspiracies
iii) She commissioned and participated in many architectural projects in Shahjanabad
iv) She controlled significant financial resources
d) In what way (s) did Jahanara contribute towards the growth of trade?
i) By building the port city of Surat.
ii) By helping Shahjahan in building his capital at Agra
iii) By building a double storeyed caravanserai in Delhi
iv) By designing the Chandini Chowk market.

Choose the correct option:
A) Only (i)
B) Only (i), (ii)
C) Only (iii) and (iv)
D) Only (iii)
19.

Study this extract of the Fifth Report and answer any three of the following questions:

Referring to the condition of zamindars and the auction of lands, the Fifth Report stated: The revenue was not realised with punctuality, and lands to a considerable extent were periodically exposed to sale by auction. In the native year 1203, corresponding with 1796-97, the land advertised for sale comprehended a jumma or assessment of sicca rupees $28,70,061$, the extent of land actually sold bore a jumma or assessment of $14,18,756$, and the amount of purchase money sicca rupees $17,90,416$. In 1204, corresponding with 1797-98, the land advertised was for sicca rupees $26,66,191$, the quantity sold was for sicca rupees $22,74,076$, and the purchase money sicca rupees $21,47,580$. Among the defaulters were some of the oldest families of the country. Such were the rajahs of Nuddea, Rajeshaye, Bishenpore (all districts of Bengal ) , .. and others, the dismemberment of whose estates at the end of each succeeding year, threatened them with poverty and ruin, and in some instances presented difficulties to the revenue officers, in their efforts to preserve undiminished the amount of public assessment.

## a) Choose the correct option:

Assertion (A): Among the defaulters were some of the oldest families of the country. Reason ( R ): The revenue was not realised with punctuality, and lands to a considerable extent were periodically exposed to sale by auction.
(i) Both $A$ and $R$ are correct and $R$ is the correct explanation of $A$.
(ii) Both A and R are correct but R is not the correct explanation of A .
(iii) $A$ is correct but $R$ is wrong.
(iv) R is correct but A is wrong.
b) What are the officials who wrote the Fifth Report trying to show through these figures?
(i) Maladministration, corruption and misrule by the East India Company officials
(ii) Drawback of the system of Permanent Settlement
(iii) Inefficiency in revenue collection
(iv) Only (ii)and (iii)
c) Long term generalisations from these figures of two years may lead to misinterpretation of the actual situation. How?
(i) As these were the years when zamindars faced problems.
(ii)There could be exaggeration of facts.
(iii) Both (i) and (ii).
(iv) None of the above.

| d) What do you think, according to this extract is the meaning of jumma? <br> (i) the amount collected as land revenue <br> (ii) the amount collected from the auction of the land <br> (iii) the official assessment of land revenue <br> (iv) All of the above |  |  |
| :---: | :---: | :---: |
|  | SECTION C |  |
| 20 | Explain the sources used by historians to reconstruct the history of the Mauryan Empire. | 3 |
| 21 | "The nobility was recruited consciously by the Mughal rulers from diverse ethnic and religious groups".Justify. | 3 |
| 22 | "The battle between the hoe and plough was a long one." Substantiate the statement with reference to the Santhal and Paharias of Raj Mahal Hills during the 18th century. | 3 |
| 23 | "Rumours circulate only when they resonate, with the deep fears and suspicion of the people'. How was this statement true in the context of the Revolt of 1857 ? | 3 |
|  | SECTION D |  |
| 24 | Explain the most important idea of Jainism and its impact on Indian thinking. $(2+6)$ <br> OR <br> "Be lamps unto yourselves as all of you must work out your own liberation ". In light of this statement explain the teachings of Buddhism. | 8 |
| 25 | Identify the rituals and practices associated with the Mahanavami Dibba, a structure in the Royal Centre of Vijayanagara Empire. <br> OR <br> Outline the distinctive features of the Virupaksha temple and the Vitthala temple in the Royal Centre of Vijayanagara Empire. $(5+3)$ | 8 |
| 26 | Examine the different kinds of sources from which the political career of Gandhiji and the history of the National movement could be reconstructed. <br> OR <br> "The Quit India Movement genuinely a mass movement". Justify. | 8 |
|  | SECTION E |  |

27 Read the following source carefully and answer the questions that follow:

## The most ancient system yet discovered

About the drains, Mackay noted: "It is certainly the most complete ancient system as yet discovered." Every house was connected to the street drains. The main channels were made of bricks set in mortar and were covered with loose bricks that could be removed for cleaning. In some cases, limestone was used for the covers. House drains first emptied into a sump or cesspit into which solid matter settled while wastewater flowed out into the street drains. Very long drainage channels were provided at intervals with sumps for cleaning. It is a wonder of archaeology that "little heaps of material, mostly sand, have frequently been found lying alongside drainage channels, which shows ... that the debris was not always carted away when the drain was cleared".
FROM ERNEST MACKAY, Early Indus Civilisation, 1948.
27.1) Enumerate one reason, why, Mackay states that" it is certainly the most complete ancient systems yet discovered"
27.2) Define the term' grid pattern' of the Lower town and state one of its features.
27.3)Describe the features of the domestic drainage system.

## Read the following source carefully and answer the questions that follow:

## The pilgrimage of the Mughal princess Jahanara, 1643

The following is an excerpt from Jahanara's biography of Shaikh Muinuddin
Chishti,titled Munis al Arwah (The Confidant of Spirits):
After praising the one God ... this lowly faqira (humble soul) Jahanara ... went from the capital Agra in the company of my great father (Emperor Shah Jahan) towards the pure region of incomparable Ajmer ... I was committed to this idea, that every day in every station I would perform two cycles of optional prayer ...
For several days ... I did not sleep on a leopard skin at night, I did not extend my feet in the direction of the blessed sanctuary of the revered saving master, and I did not turn my back towards him. I passed the days beneath the trees.
On Thursday, the fourth of the blessed month of Ramzan, I attained the happiness of pilgrimage to the illuminated and the perfumed tomb ... With an hour of daylight remaining, I went to the holy sanctuary and rubbed my pale face with the dust of that threshold. From the doorway to the blessed tomb I went barefoot, kissing the ground. Having entered the dome, I went around the light-filled tomb of my master seven

|  | times. <br> .... Finally, with my own hand I put the finest quality of itar on the perfumed tomb of the revered one, and having taken off the rose scarf that I had on my head, I placed it on the top of the blessed tomb ... <br> 28.1) Do you know of another instance, when the Dargah was patronised by royal visitors? <br> 28.2) Evaluate the concept of ziyarat, in the context of the source. <br> 28.3) Classify the ways by which the devotees, showed their reverence, at the Dargah. | 1 + 2 + 2 |
| :---: | :---: | :---: |
| 29 | Read the following source carefully and answer the questions that follow: <br> What should be the qualities of a national language? <br> A few months before his death Mahatma Gandhi reiterated his views on the language question: <br> This Hindustani should be neither Sanskritised Hindi nor Persianised Urdu but a happy combination of both. It should also freely admit words wherever necessary from the different regional languages and also assimilate words from foreign languages, provided that they can mix well and easily with our national language. Thus our national language must develop into a rich and powerful instrument capable of expressing the whole gamut of human thought and feelings. To confine oneself to Hindi or Urdu would be a crime against intelligence and the spirit of patriotism. <br> HARIJANSEVAK, 12 OCTOBER 1947 <br> 29.1) Explain the term 'multicultural language '. <br> 29.2) What were the characteristics of the national language, in context to the source. <br> 29.3) " The report of the Language Committee, promoted the spirit of patriotism ".Give reasons | 1 + 2 + 2 $=$ 5 |
|  | SECTION F |  |
| 30 | (30.1) On the given political map of India, locate and label the following with appropriate symbols : <br> a) Lothal, a mature Harappan site <br> OR <br> Sanchi, a major Buddhist site <br> b) Agra, a territory under Babur, Akbar, and Aurangzeb <br> OR <br> Calcutta, a main centre of the revolt1857 <br> c) Dandi | 1 + 1 + 1 $=$ 3 |


| (30.2) On the same outline map, two places have been marked as $A$ and $B$, which are centres of the National movement. Identify, them and write their correct names on the lines drawn near them <br> Note: The following questions are for the Visually Impaired Candidates only in lieu of Q.No. 30 <br> ( 30.1) Mention any three Mature Harappan sites <br> (3 marks) <br> OR <br> Mention any three Buddhist sites. <br> (30.2) Name any two centres of the revolt of 1857. (2 marks) | 1 + 1 $=$ 2 |
| :---: | :---: |

## Class: XII Session: 2020-21

## Subject: Mathematics

## Sample Question Paper (Theory)

## Time Allowed: 3 Hours

Maximum Marks: $\mathbf{8 0}$

## General Instructions:

1. This question paper contains two parts $\mathbf{A}$ and $B$. Each part is compulsory. Part $A$ carries $\mathbf{2 4}$ marks and Part B carries 56 marks
2. Part-A has Objective Type Questions and Part -B has Descriptive Type Questions
3. Both Part A and Part B have choices.

## Part - A:

1. It consists of two sections-I and II.
2. Section I comprises of 16 very short answer type questions.
3. Section II contains 2 case studies. Each case study comprises of 5 case-based MCQs. An examinee is to attempt any 4 out of 5 MCQs.

Part - B:

1. It consists of three sections- III, IV and V.
2. Section III comprises of 10 questions of $\mathbf{2}$ marks each.
3. Section IV comprises of 7 questions of $\mathbf{3}$ marks each.
4. Section $\mathbf{V}$ comprises of 3 questions of 5 marks each.
5. Internal choice is provided in $\mathbf{3}$ questions of Section -III, 2 questions of SectionIV and $\mathbf{3}$ questions of Section-V. You have to attempt only one of the alternatives in all such questions.

| Sr. <br> No. | Part - A | Mark <br> $\mathbf{s}$ |
| :---: | :--- | :---: |
|  | All questions are compulsory. In case of internal choices attempt any <br> one. |  |
| 1 | Check whether the function $f: R \rightarrow R$ defined as $f(x)=x^{3}$ is one-one or not. <br> OR | 1 |

\begin{tabular}{|c|c|c|}
\hline \& How many reflexive relations are possible in a set A whose \(n(A)=3\). \& 1 \\
\hline 2 \& A relation R in \(S=\{1,2,3\}\) is defined as \(R=\{(1,1),(1,2),(2,2),(3,3)\}\). Which element(s) of relation \(R\) be removed to make \(R\) an equivalence relation? \& 1 \\
\hline 3 \& \begin{tabular}{l}
A relation \(\mathbf{R}\) in the set of real numbers \(\mathbf{R}\) defined as \(R=\{(a, b): \sqrt{a}=b\}\) is a function or not. Justify \\
OR \\
An equivalence relation R in A divides it into equivalence classes \(A_{1}, A_{2}, A_{3}\). What is the value of \(A_{1} \cup A_{2} \cup A_{3}\) and \(A_{1} \cap A_{2} \cap A_{3}\)
\end{tabular} \& 1 \\
\hline 4 \& If \(A\) and \(B\) are matrices of order \(3 \times n\) and \(m \times 5\) respectively, then find the order of matrix \(5 \mathrm{~A}-3 \mathrm{~B}\), given that it is defined. \& 1 \\
\hline 5 \& \begin{tabular}{l}
Find the value of \(A^{2}\), where A is a \(2 \times 2\) matrix whose elements are given by
\[
a_{i j}=\left\{\begin{array}{lll}
1 \& \text { if } \quad i \neq j \\
0 \& \text { if } \quad i=j
\end{array}\right.
\] \\
OR \\
Given that \(A\) is a square matrix of order \(3 \times 3\) and \(|A|=-4\). Find \(|\operatorname{adj} A|\)
\end{tabular} \& 1

1 <br>

\hline 6 \& | Let $\mathrm{A}=\left[a_{i j}\right]$ be a square matrix of order $3 \times 3$ and $\|\mathrm{A}\|=-7$. Find the value of $a_{11} A_{21}+a_{12} A_{22}+a_{13} A_{23}$ |
| :--- |
| where $A_{i j}$ is the cofactor of element $a_{i j}$ | \& 1 <br>


\hline 7 \& | Find $\int e^{x}\left(1-\cot x+\operatorname{cosec}^{2} x\right) d x$ |
| :--- |
| OR |
| Evaluate $\int_{-\frac{\pi}{2}}^{\frac{\pi}{2}} x^{2} \sin x d x$ | \& 1

1 <br>
\hline 8 \& Find the area bounded by $y=x^{2}$, the $x$ - axis and the lines $x=-1$ and $x=1$. \& 1 <br>

\hline 9 \& | How many arbitrary constants are there in the particular solution of the differential equation $\frac{d y}{d x}=-4 x y^{2} ; y(0)=1$ |
| :--- |
| OR |
| For what value of n is the following a homogeneous differential equation: $\frac{d y}{d x}=\frac{x^{3}-y^{n}}{x^{2} y+x y^{2}}$ | \& 1

1 <br>
\hline 10 \& Find a unit vector in the direction opposite to $-\frac{3}{4} \hat{\jmath}$ \& 1 <br>
\hline 11 \& Find the area of the triangle whose two sides are represented by the vectors $2 \hat{\imath}$ and $-3 \hat{\jmath}$. \& 1 <br>
\hline
\end{tabular}

| 12 | Find the angle between the unit vectors $\hat{a}$ and $\hat{b}$, given that $\|\hat{a}+\hat{b}\|=1$ | 1 |
| :---: | :---: | :---: |
| 13 | Find the direction cosines of the normal to YZ plane? | 1 |
| 14 | Find the coordinates of the point where the line $\frac{x+3}{3}=\frac{y-1}{-1}=\frac{z-5}{-5}$ cuts the XY plane. | 1 |
| 15 | The probabilities of $A$ and $B$ solving a problem independently are $\frac{1}{3}$ and $\frac{1}{4}$ respectively. If both of them try to solve the problem independently, what is the probability that the problem is solved? | 1 |
| 16 | The probability that it will rain on any particular day is $50 \%$. Find the probability that it rains only on first 4 days of the week. | 1 |
|  | Section II <br> Both the Case study based questions are compulsory. Attempt any 4 sub parts from each question (17-21) and (22-26). Each question carries 1 mark |  |
| 17 | An architect designs a building for a multi-national company. The floor consists of a rectangular region with semicircular ends having a perimeter of 200 m as shown below: <br> Based on the above information answer the following: |  |
|  | (i) If $x$ and $y$ represents the length and breadth of the rectangular region, then the relation between the variables is <br> a) $x+\pi y=100$ <br> b) $2 x+\pi y=200$ <br> c) $\pi x+y=50$ <br> d) $x+y=100$ |  |


| (ii)The area of the rectangular region A expressed as a function of x is | 1 |
| :--- | :--- | :--- |
| a) $\frac{2}{\pi}\left(100 x-x^{2}\right)$  <br> b) $\frac{1}{\pi}\left(100 x-x^{2}\right)$  <br> c) $\frac{x}{\pi}(100-x)$  <br> d) $\pi y^{2}+\frac{2}{\pi}\left(100 x-x^{2}\right)$ 1 <br> (iii) The maximum value of area A is  <br>  a) $\frac{\pi}{3200} m^{2}$ <br> b) $\frac{3200}{\pi} m^{2}$ <br> c) $\frac{5000}{\pi} m^{2}$ <br> d) $\frac{1000}{\pi} m^{2}$ <br> d) <br> c) $\frac{7000}{\pi} m^{2}$ <br> (iv) The change Both areas are equal <br> of the whole floor including the semi-circular ends. For this to happen the valve <br> of x should be <br> a) 0 m <br> b) 30 m <br> c) 50 m <br> d) 80 m |  |


| 18 | In an office three employees Vinay, Sonia and Iqbal process incoming copies of <br> a certain form. Vinay process $50 \%$ of the forms. Sonia processes $20 \%$ and Iqbal <br> the remaining $30 \%$ of the forms. Vinay has an error rate of 0.06 , Sonia has an <br> error rate of 0.04 and Iqbal has an error rate of 0.03 |
| :--- | :--- | :--- |
| Based on the above information answer the following: |  | | (i) The conditional probability that an error is committed in processing given that |
| :--- |
| Sonia processed the form is : |
| a) 0.0210 |
| b) 0.04 |
| c) 0.47 |
| d) 0.06 | | (iii)The total probability of committing an error in processing the form is |
| :--- |
| a) 0 |
| b) 0.047 |
| c) 0.234 |


|  | d) 1 |  |
| :---: | :---: | :---: |
|  | (iv)The manager of the company wants to do a quality check. During inspection he selects a form at random from the days output of processed forms. If the form selected at random has an error, the probability that the form is NOT processed by Vinay is : <br> a) 1 <br> b) $30 / 47$ <br> c) $20 / 47$ <br> d) $17 / 47$ | 1 |
|  | (v)Let A be the event of committing an error in processing the form and let $\mathrm{E}_{1}$, $\mathrm{E}_{2}$ and $\mathrm{E}_{3}$ be the events that Vinay, Sonia and Iqbal processed the form. The value of $\sum_{i=1}^{3} P\left(E_{i} \mid \mathrm{A}\right)$ is <br> a) 0 <br> b) 0.03 <br> c) 0.06 <br> d) 1 | 1 |
|  | Part - B |  |
|  | Section III |  |
| 19 | Express $\tan ^{-1}\left(\frac{\cos x}{1-\sin x}\right), \frac{-3 \pi}{2}<x<\frac{\pi}{2}$ in the simplest form. | 2 |
| 20 | If A is a square matrix of order 3 such that $A^{2}=2 A$, then find the value of $\|\mathrm{A}\|$. <br> OR <br> If $A=\left[\begin{array}{cc}3 & 1 \\ -1 & 2\end{array}\right]$, show that $A^{2}-5 \mathrm{~A}+7 \mathrm{I}=0$. <br> Hence find $\mathrm{A}^{-1}$. | 2 2 |
| 21 | Find the value(s) of k so that the following function is continuous at $x=0$ | 2 |

\begin{tabular}{|c|c|c|}
\hline \& \[
f(x)= \begin{cases}\frac{1-\cos k x}{x \sin x} \& \text { if } x \neq 0 \\ \frac{1}{2} \& \text { if } x=0\end{cases}
\] \& \\
\hline 22 \& Find the equation of the normal to the curve \(\mathrm{y}=x+\frac{1}{x}, x>0\) perpendicular to the line \(3 x-4 y=7\). \& 2 \\
\hline 23 \& \begin{tabular}{l}
Find \(\int \frac{1}{\cos ^{2} x(1-\tan x)^{2}} d x\) \\
OR \\
Evaluate \(\int_{0}^{1} x(1-x)^{n} d x\)
\end{tabular} \& 2

2 <br>
\hline 24 \& Find the area of the region bounded by the parabola $y^{2}=8 x$ and the line $x=$ 2. \& 2 <br>
\hline 25 \& Solve the following differential equation:

$$
\frac{d y}{d x}=x^{3} \operatorname{cosec} y, \text { given that } y(0)=0 .
$$ \& 2 <br>

\hline 26 \& Find the area of the parallelogram whose one side and a diagonal are represented by coinitial vectors $\hat{\imath}-\hat{\jmath}+\hat{k}$ and $4 \hat{\imath}+5 \hat{k}$ respectively \& 2 <br>
\hline 27 \& Find the vector equation of the plane that passes through the point $(1,0,0)$ and contains the line $\vec{r}=\lambda \hat{\jmath}$. \& 2 <br>

\hline 28 \& | A refrigerator box contains 2 milk chocolates and 4 dark chocolates. Two chocolates are drawn at random. Find the probability distribution of the number of milk chocolates. What is the most likely outcome? |
| :--- |
| OR |
| Given that $E$ and $F$ are events such that $P(E)=0.8, P(F)=0.7, P(E \cap F)=0.6$. Find $P(\overline{\mathrm{E}} \mid \overline{\mathrm{F}})$ | \& 2

2 <br>
\hline \& Section IV
All questions are compulsory. In case of internal choices attempt any one. \& <br>
\hline 29 \& Check whether the relation R in the set Z of integers defined as $\mathrm{R}=$ $\{(a, b): a+b$ is "divisible by 2 " $\}$ is reflexive, symmetric or transitive. Write the equivalence class containing 0 i.e. [0]. \& 3 <br>

\hline 30 \& $$
\text { If } \mathrm{y}=e^{x \sin ^{2} x}+(\sin x)^{x}, \text { find } \frac{d y}{d x}
$$ \& 3 <br>

\hline 31 \& Prove that the greatest integer function defined by $f(x)=[x], 0<x<2$ is not differentiable at $x=1$ \& 3 <br>
\hline
\end{tabular}

\begin{tabular}{|c|c|c|}
\hline \& \begin{tabular}{l}
OR \\
If \(x=a \sec \theta, y=b \tan \theta\) find \(\frac{d^{2} y}{d x^{2}}\) at \(x=\frac{\pi}{6}\)
\end{tabular} \& 3 \\
\hline 32 \& \begin{tabular}{l}
Find the intervals in which the function \(f\) given by \(f(x)=\tan x-4 x, \quad x \in\left(0, \frac{\pi}{2}\right)\) is \\
a) strictly increasing \\
b) strictly decreasing
\end{tabular} \& 3 \\
\hline 33 \& Find \(\int \frac{x^{2}+1}{\left(x^{2}+2\right)\left(x^{2}+3\right)} d x\). \& 3 \\
\hline 34 \& \begin{tabular}{l}
Find the area of the region bounded by the curves \(x^{2}+y^{2}=4, y=\sqrt{3} x\) and \(x\)-axis in the first quadrant \\
OR \\
Find the area of the ellipse \(x^{2}+9 y^{2}=36\) using integration
\end{tabular} \& 3
3 \\
\hline 35 \& Find the general solution of the following differential equation: \(x d y-\left(y+2 x^{2}\right) d x=0\) \& 3 \\
\hline \& \begin{tabular}{l}
Section V \\
All questions are compulsory. In case of internal choices attempt any one.
\end{tabular} \& \\
\hline 36 \& \begin{tabular}{l}
If \(A=\left[\begin{array}{ccc}1 \& 2 \& 0 \\ -2 \& -1 \& -2 \\ 0 \& -1 \& 1\end{array}\right]\), find \(A^{-1}\). Hence Solve the system of equations;
\[
\begin{aligned}
\& x-2 y=10 \\
\& 2 x-y-z=8 \\
\& -2 y+z=7
\end{aligned}
\] \\
OR \\
Evaluate the product \(A B\), where
\[
A=\left[\begin{array}{ccc}
1 \& -1 \& 0 \\
2 \& 3 \& 4 \\
0 \& 1 \& 2
\end{array}\right] \text { and } B=\left[\begin{array}{ccc}
2 \& 2 \& -4 \\
-4 \& 2 \& -4 \\
2 \& -1 \& 5
\end{array}\right]
\] \\
Hence solve the system of linear equations
\[
x-y=3
\]
\end{tabular} \& 5

5 <br>
\hline
\end{tabular}

\begin{tabular}{|c|c|c|}
\hline \& \[
\begin{aligned}
\& 2 x+3 y+4 z=17 \\
\& y+2 z=7
\end{aligned}
\] \& \\
\hline 37 \& \begin{tabular}{l}
Find the shortest distance between the lines
\[
\begin{aligned}
\& \quad \vec{r}=3 \hat{\imath}+2 \hat{\jmath}-4 \hat{k}+\lambda(\hat{\imath}+2 \hat{\jmath}+2 \hat{k}) \\
\& \text { and } \vec{r}=5 \hat{\imath}-2 \hat{\jmath}+\mu(3 \hat{\imath}+2 \hat{\jmath}+6 \hat{k})
\end{aligned}
\] \\
If the lines intersect find their point of intersection \\
OR \\
Find the foot of the perpendicular drawn from the point \((-1,3,-6)\) to the plane \(2 x+y-2 z+5=0\). Also find the equation and length of the perpendicular.
\end{tabular} \& 5

5 <br>

\hline 38 \& | Solve the following linear programming problem (L.P.P) graphically. Maximize $Z=x+2 y$ subject to constraints ; $\begin{aligned} & x+2 y \geq 100 \\ & 2 x-y \leq 0 \\ & 2 x+y \leq 200 \\ & x, y \geq 0 \end{aligned}$ |
| :--- |
| OR |
| The corner points of the feasible region determined by the system of linear constraints are as shown below: |
| Answer each of the following: |
| (i) Let $Z=3 x-4 y$ be the objective function. Find the maximum and minimum value of $Z$ and also the corresponding points at which the maximum and minimum value occurs. | \& 5

5 <br>
\hline
\end{tabular}

(ii) Let $Z=p x+q y$, where $p, q>o$ be the objective function. Find the condition on $p$ and $q$ so that the maximum value of $Z$ occurs at $\mathrm{B}(4,10)$ and $\mathrm{C}(6,8)$. Also mention the number of optimal solutions in this case.

# Painting (Theory ) Code No. -049) <br> Class XII <br> Sample Question Paper (2020-21) 

Time allowed 2 hours
Maximum Marks : 30

## General Instructions: Answer all the 5 sections:

## SECTION : FIRST

1. Mention the title of painting done by Painter Nihal Chand of the Rajasthani School?
a) Radha (Bani Thani)
b) Krishna lifting mountain
c) Krishna with Gopies
d) Maru Ragini
2. In which its sub school the famous miniature painting of the Deccan school 'Chand Bibi playing polo (Chaugan) is made:
a) Bijapur Sub School
b) Gol Konda Sub School
c) Ahmadnagar Sub School
d) Hyderabad Sub School
3. In which medium the Rajasthani miniature paintings are made?
a) Oil colors
b) Pastel Colors
c) Water colors
d) Acrylic colors
4. Contemporary (modern) Indian graphic print $\qquad$ depicts the concept of fertility and power of worship.
a) Children
b) Man Women and Tree
c) Devi
d) Of Walls
5. The famous painter of the Mughal School $\qquad$ has brilliantly depicted the marriage procession of the Mughal Prince
a) Ustad Faquirullah Khan
b) Miskin
c) Haji Madni
d) Usdad Mansoor
6. Mention the title painting done by the painters Nand Lal Bose of the Bengal School.
a) Journey's End
b) Radika
c) Shiv \& Sati
d) Meghdoot

## SECTION : SECOND

General Instructions: Answer to be written for each is about 30 words

1. Evaluate the compositional arrangement of any three of the following in short:
a) Saint Kabir and Raid ass
b) Krishna Lifting Mount Govardhan
c) Chand Biwi Playing Pob
d) Hazarat Niamuddin Auliya and Amir Khusro

SECTION: THIRD

1. Identify any relevant painting of the Bengal School included in your course of study comprising of the following features and explain them in that painting accordingly.
a) The creation of mystic and mellow style by using gloomy coloring with diffused light background and absence of any dark line or tone, which provide the experience of the astral world.
2. Which one of the contemporary Indian Sculptor you like the most? Write about the style characteristics materials etc. of his/her work.

SECTION: FOURTH

## General Instructions : Answer to be written in about 200 words:

1. Write short notes on any two of the following
a) Mother And Child
b) Haldi Grinders
c) Rama Vanishing Pride of oceance
d) Mother Teresa

## SECTION : FIFTH

## General Instructions: Answer to be written in about 200 words :

1. Write as essay (in not more than 350 words) on any one of the following:
a) Contribution of Bengal school in promoting nationalism
b) Deccani Schools of Painting.

## SAMPLE PAPER (2020-21)

Subject: P.E. (048)
Class: XII

1. The question paper consists of $\mathbf{3 0}$ questions and all are compulsory
2. Question 1-12 carry 01 mark each and are Multiple Choice Questions
3. Questions $13-16$ carry 02 marks each and shall not exceed $40-60$ words
4. Questions $17-26$ carry 03 marks each and shall not exceed $80-100$ words
5. Questions 27-30 carry 05 marks each and shall notexceed 150-200words

Q1. Interval Training is used for developing
a. Flexibility
b. Agility
c. Endurance
d. Speed

OR
Resistance ability against fatigue is called
a. Strength
b. Speed
c. Endurance
d. Agility

Q2. Acceleration of an object will increase as the net force increases depending on its
a. Density
b. Mass
c. Shape
d. Volume

Q3. Physiological factor determining speed:
a. Explosive strength
b. Body weight
c. Muscle composition
d. Both a) \& c)

## OR

$\qquad$ bone comes out of socket in hip dislocation.
a. Femur
b. Humerus
c. Tibia
d. Fibula

Q4. The word Meso in Mesomorph is related to
a. Fat
b. Lean
c. Muscular
d. None of the above

Q5. . A pattern of disobedience can be observed in children suffering from
a. ODD
b. ADHD
c. OCD
d. SPD

Q6. What is Bye?
a. It's a method of drawing fixture.
b. Point system for team games.
c. Advantage given to a team to not to play in initial round.
d. Placing of teams according to previous performance.

Q7. Dislocation is related to
a. Bone injury
b. Skin Injury
c. Muscular Injury
d. Joint injury OR
Fracture where a part of broken bone enters another bone
a. Simple fracture
b. Compound fracture
c. Impacted fracture
d. Green stick fracture

Q8. Ability to achieve maximum speed from stationary position is called $\qquad$ ?
a. Speed endurance
b. Acceleration ability
c. Locomotors ability
d. Movement speed

Q9. What is the value placed for Male in $\mathrm{VO}_{2}$ MAX formula?
a. 1
b. 0
c. 0.85
d. 0.72

Q 10. One of the possible causes for Obesity could be?
a. Heredity
b. Excessive eating
c. Fast metabolism
d. Both a) \& b)

Q 11. Given below are the two statements labeled Assertion (A) andReason (R).
A. Assertion (A): Planning is the foremost function in sports.
B. Reason (R): Planning gives a view of future course of action

In the context of above two statements, which one of the following 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

Q 12. Match List - I with List - II and select the correct answer from the code given below:

| LIST - I |  | LIST - II |  |
| :--- | :--- | :--- | :--- |
| Vitamin | Disease |  |  |
| i | Vitamin A | i | Pyorrhea |
| ii | Vitamin B | ii | Rickets |
| iii | Vitamin C | iii | Beriberi |
| iv | Vitamin D | Iv | Night Blindness |


| Code |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
|  | i | ii | iii | iv |
| a | 2 | 4 | 3 | 1 |
| b | 1 | 2 | 4 | 3 |
| c | 4 | 3 | 1 | 2 |
| d | 3 | 1 | 2 | 4 |

Q 13. Identify the below given Asanas and write the names
a.

b.

c.

$\qquad$
d.


Q 14.Identify the human movement and give their names
a.
$\qquad$

b.

c.

$\qquad$
d.


Q 15. Design a free hand four exercises programme for curing Round Shoulders.
Q 16. Differentiate between 'ODD' and 'SPD' on the basis of their symptoms (any two)
OR
Differentiate between 'ADHD' and'ASD' on the basis of their symptoms (any two)

Q 17. Below given is the BMI data of a school's health check-up


18.5-24.9

<18.5


25-29.9


30-34.9

On the basis of the above data; answer the following questions:
A. In which category does the major student population falls into?
a. Obese
b. Normal weight
c. Under weight
d. Over weight
B. The school has to develop an activity based program to decrease the number of:

a

b


C

d
C. Which category is related to underweight?


Q 18. Raman is a student of class XII and is suffering from Obesity. During a recent medical check-up at school he was advised to practice yogasana (as given in the syllabus) and participate in sports activities for curing it.

Based on this case answer the following questions:

1. The yoga instructor at the school has asked Raman to perform
a. Bhujangasana
b. Pawanmuktasana
c. Vajrasana
d. Chakrasana
2. The BMI index for an Obese person is
a. <18.5
b. 18.5-24.9
c. $>30$
d. $>25$

3 Due to the Obesity; Raman is also suffering from knock knees for which he is advised to
a. Walk on inner edge of foot
b. Walk on outer edge of foot
c. Walk on heels
d. Walk on toes

Q 19. Compare any three Micro minerals on the basis of their sources and benefits.
OR
Compare any three Fat soluble vitamins on the basis of their sources and benefits.
Q 20. Create a flow chart for common Sports Injuries while enlisting the sub parts.

Q 21. Name the tests used to calculate cardio vascular fitness. Write the formula for short term and long term fitness index and calculate long term fitness index if duration of exercise is 300 sec and sum of heart rate is 230 .
OR
List the components of Motor fitness test. Explain any two of them in detail.

Q 22. State Newton's laws of motion and explain their implication in Sports of your choice.

Q 23. Explain any three types of coordinative abilities.

Q 24. Plan a strategy for making physical activity accessible for Children with Special Need.
Q 25. There are 11 teams participating in a Knock-out Tournament. Explain the procedureto calculate number of 'Byes' and also with the help of diagram allot 'Byes'.

Q 26. "Extrinsic motivation sometimes may kill intrinsic motivation". Justify.
OR
Explain aggression in Sports. Discuss the role of aggression in context to its types.

Q 27. Enlist the Big Five TheoryPersonalities and describe any three of them while comparing their characteristics.

Q 28. Define spinal curvature deformities and list their causes and precautions.

## OR

Create a table and explain: Different Stages of Growth and Development; Characteristics of Development and Exercise Guidelines.

Q 29. Which are the Asanaspracticed for preventing Hypertension? Write in detail about any two of them.

## OR

Which are the Asanas practiced for preventing Asthma? Write in detail about any two of them.
Q 30. Rudra is working on a project to collect data for assessing Physical Fitness amongst Senior Citizens at his residential complex. He plans to administer test for assessing Lower Body Flexibility; Upper Body Flexibility and Lower Body Strength.List the test(s) he should conduct and also explain in detail the procedure of its administration along with scoringsystem.

## Class: XII Session: 2020-2021

## Subject: Physics

## Sample Question Paper (Theory)

Maximum Marks: 70 Marks
Time Allowed: 3 hours

## General Instructions:

(1) All questions are compulsory. There are 33 questions in all.
(2) This question paper has five sections: Section A, Section B, Section C, Section D and Section E.
(3) Section A contains ten very short answer questions and four assertion reasoning MCQs of 1 mark each, Section B has two case based questions of 4 marks each, Section C contains nine short answer questions of 2 marks each, Section D contains five short answer questions of 3 marks each and Section E contains three long answer questions of 5 marks each.
(4) There is no overall choice. However internal choice is provided. You have to attempt only one of the choices in such questions.

| Sr. <br> No. | Section - A <br> All questions are compulsory. In case of internal choices, attempt <br> any one of them. | Marks |
| :--- | :--- | :--- |
| 1 | Name the physical quantity having unit J/T. | 1 |
| 2 | Mention one use of part of electromagnetic spectrum to which a wavelength <br> of 21 cm (emitted by hydrogen in interstellar space) belongs. | 1 |
| 3 | Give the ratio of velocity of the two light waves of wavelengths 4000Ond and <br> $8000 \AA$ travelling in vacuum. <br> An electron with charge -e and mass m travels at a speed v in a plane <br> perpendicular to a magnetic field of magnitude B. The electron follows a <br> circular path of radius R. In a time, the the electron travels halfway around the <br> circle. What is the amount of work done by the magnetic field? | 1 |


| 4 | A solenoid with $\mathbf{N}$ loops of wire tightly wrapped around an iron-core is carrying an electric current I. If the current through this solenoid is reduced to half, then what change would you expect in inductance $\mathbf{L}$ of the solenoid. OR <br> An alternating current from a source is given by $\mathbf{i}=10 \sin 314 \mathrm{t}$. What is the effective value of current and frequency of source? | 1 |
| :---: | :---: | :---: |
| 5 | What is the value of angular momentum of electron in the second orbit of Bohr's model of hydrogen atom? | 1 |
| 6 | In a photoelectric experiment, the potential required to stop the ejection of electrons from cathode is 4 V . What is the value of maximum kinetic energy of emitted Photoelectrons? | 1 |
| 7 | In decay of free neutron, name the elementary particle emitted along with proton and electron in nuclear reaction. <br> OR <br> In the following nuclear reaction, Identify unknown labelled X . ${ }_{11}^{22} \mathrm{Na}+X \rightarrow{ }_{10}^{22} \mathrm{Ne}+v_{e}$ | 1 |
| 8 | How does the width of a depletion region of a pn junction vary if doping concentration is increased? <br> OR <br> In half wave rectification, what is the output frequency if input frequency is 25 Hz . | 1 |
| 9 | When a voltage drop across a pn junction diode is increased from 0.70 V to 0.71 V , the change in the diode current is 10 mA . What is the dynamic resistance of diode? | 1 |
| 10 | Which specially fabricated pn junction diode is used for detecting light intensity? | 1 |
|  | For question numbers 11, 12, 13 and 14, 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. <br> a) Both $A$ and $R$ are true and $R$ is the correct explanation of $A$ <br> b) Both $A$ and $R$ are true but $R$ is NOT the correct explanation of $A$ <br> c) $A$ is true but $R$ is false <br> d) $A$ is false and $R$ is also false |  |


| 11 | Assertion(A): <br> In a nonuniform electric field, a dipole will have translatory as well as <br> rotatory motion. <br> Reason(R): <br> In a nonuniform electric field, a dipole experiences a force as well as <br> torque. | 1 |
| :--- | :--- | :--- |
| 12 | Assertion(A): <br> Electric field is always normal to equipotential surfaces and along the <br> direction of decreasing order of potential <br> Reason(R): <br> Negative gradient of electric potential is electric field. | 1 |
| 13 | Assertion (A): <br> A convex mirror cannot form real images. <br> Reason (R): <br> Convex mirror converges the parallel rays that are incident on it. | 1 |
| 14 | Assertion(A): <br> A convex lens of focal length 30 cm can't be used as a simple microscope <br> in normal setting. <br> Reason (R): <br> For normal setting, the angular magnification of simple microscope is <br> M=D/f | 1 |
| 15 | Questions 15 and 16 are Case Study based questions and are <br> Qumpulsory. Attempt any 4 sub parts from each question. Each <br> question carries 1 mark. |  |
| Faraday Cage: <br> A Faraday cage or Faraday shield is an enclosure made of a conducting <br> material. The fields within a conductor cancel out with any external fields, <br> so the electric field within the enclosure is zero. These Faraday cages act <br> as big hollow conductors you can put things in to shield them from electrical <br> fields. Any electrical shocks the cage receives, pass harmlessly around the <br> outside of the cage. |  |  |




|  | The brilliance of diamond in the second diamond will be: <br> a) less than the first <br> b) greater than first <br> c) same as first <br> d) will depend on the intensity of light |  |
| :---: | :---: | :---: |
|  | Section - CAll questions are compulsory. In case of internal choices, attempt <br> anyone. |  |
| 17 | Two straight infinitely long wires are fixed in space so that the current in the left wire is 2 A and directed out of the plane of the page and the current in the right wire is 3 A and directed into the plane of the page. In which region(s) is/are there a point on the $x$-axis, at which the magnetic field is equal to zero due to these currents carrying wires? Justify your answer. | 2 |
| 18 | Draw the graph showing intensity distribution of fringes with phase angle due to diffraction through single slit. <br> OR <br> What should be the width of each slit to obtain $\mathbf{n}$ maxima of double slit pattern within the central maxima of single slit pattern? | 2 |
| 19 | Deduce an expression for the potential energy of a system of two point charges $\mathrm{q}_{1}$ and $\mathrm{q}_{2}$ located at positions $\mathrm{r}_{1}$ and $\mathrm{r}_{2}$ respectively in an external field ( $\overrightarrow{\mathrm{E}}$ ) <br> OR <br> Establish the relation between electric field and electric potential at a point. <br> Draw the equipotential surface for an electric field pointing in $+Z$ direction with its magnitude increasing at constant rate along $-Z$ direction | 2 |
| 20 | Explain with help of circuit diagram, the action of a forward biased p-n junction diode which emits spontaneous radiation. State the least band gap energy of this diode to have emission in visible region. | 2 |


| 21 | A coil of wire enclosing an area $100 \mathrm{~cm}^{2}$ is placed with its plane making an angle $60^{\circ}$ with the magnetic field of strength $10^{-1} \mathrm{~T}$. What is the flux through the coil? If magnetic field is reduced to zero in $10^{-3} \mathrm{~s}$, then find the induced emf? | 2 |
| :---: | :---: | :---: |
| 22 | Two waves from two coherent sources $S$ and $S$ ' superimpose at $X$ as shown in the figure. If $X$ is a point on the second minima and $S X-S^{\prime} X$ is 4.5 cm . Calculate the wavelength of the waves. | 2 |
| 23 | Draw the energy band diagram when intrinsic semiconductor (Ge) is doped with impurity atoms of Antimony (Sb). Name the extrinsic semiconductor so obtained and majority charge carriers in it. | 2 |
| 24 | Define the terms magnetic inclination and horizontal component of earth's magnetic field at a place. Establish the relationship between the two with help of a diagram. <br> OR <br> Horizontal component of earth's magnetic field at a place is $\sqrt{ } 3$ times the vertical component. What is the value of inclination at that place? | 2 |
| 25 | Write two characteristics of image formed when an object is placed between the optical centre and focus of a thin convex lens. Draw the graph showing variation of image distance $v$ with object distance $u$ in this case. | 2 |
|  | Section -D All questions are compulsory. In case of internal choices, attempt any one. |  |
| 26 | A rectangular loop which was initially inside the region of uniform and time - independent magnetic field, is pulled out with constant velocity $v$ as shown in the figure. | 3 |


|  | x x x x x x x  <br> x x x x x x x x <br> x        <br> x x x x x x x x <br> x x x      <br> x x x x x x x v <br> x x       <br> x x x x x x x x <br> x x       <br> (a) <br> a) Sketch the variation of magnetic flux, the induced current, and power dissipated as Joule heat as function of time. <br> b) If instead of rectangular loop, circular loop is pulled out; do you expect the same value of induced current? Justify your answer. Sketch the variation of flux in this case with time. |  |
| :---: | :---: | :---: |
| 27 | A variable resistor $R$ is connected across a cell of emf $E$ and internal resistance $r$. <br> a) Draw the circuit diagram. <br> b) Plot the graph showing variation of potential drop across R as function of $R$. <br> c) At what value of $R$ current in circuit will be maximum. <br> OR <br> A storage battery is of emf 8 V and internal resistance 0.5 ohm is being charged by d.c supply of 120 V using a resistor of 15.5 ohm <br> a) Draw the circuit diagram. <br> b) Calculate the potential difference across the battery. <br> c) What is the purpose of having series resistance in this circuit? | 3 |
| 28 | a) Explain de-Broglie argument to propose his hypothesis. Show that deBroglie wavelength of photon equals electromagnetic radiation. <br> b) If, deuterons and alpha particle are accelerated through same potential, find the ratio of the associated de-Broglie wavelengths of two. <br> OR <br> State the main implications of observations obtained from various photoelectric experiments. Can these implications be explained by wave nature of light? Justify your answer. | 3 |


| 29 | Derive an expression for the frequency of radiation emitted when a hydrogen atom de-excites from level $n$ to level ( $n-1$ ). Also show that for large values of $n$, this frequency equals to classical frequency of revolution of an electron. | 3 |
| :---: | :---: | :---: |
| 30 | a) Give one point of difference between nuclear fission and nuclear fusion. <br> b) Suppose we consider fission of a ${ }^{56}{ }_{26} \mathrm{Fe}$ into two equal fragments of ${ }^{28}{ }_{13} \mathrm{Al}$ nucleus. Is the fission energetically possible? Justify your answer by working out $Q$ value of the process. <br> Given $(\mathrm{m}){ }^{56}{ }_{26} \mathrm{Fe}=55.93494 \mathrm{u}$ and $(\mathrm{m})^{28}{ }_{13} \mathrm{Al}=27.98191$ | 3 |
|  | Section - E <br> All questions are compulsory. In case of internal choices, attempt <br> any one. |  |
| 31 | a) State Gauss's law in electrostatics. Show that with help of suitable figure that outward flux due to a point charge $Q$, in vacuum within gaussian surface, is independent of its size and shape. <br> b) In the figure there are three infinite long thin sheets having surface charge density $+2 \sigma,-2 \sigma$ and $+\sigma$ respectively. Give the magnitude and direction of electric field at a point to the left of sheet of charge density $+2 \sigma$ and to the right of sheet of charge density $+\sigma$. | 5 |


|  | OR <br> a) Define an ideal electric dipole. Give an example. <br> b) Derive an expression for the torque experienced by an electric dipole in a uniform electric field. What is net force acting on this dipole. <br> c) An electric dipole of length 2 cm is placed with its axis making an angle of $60^{\circ}$ with respect to uniform electric field of $10^{5} \mathrm{~N} / \mathrm{C}$. <br> If it experiences a torque of $8 \sqrt{ } 3 \mathrm{Nm}$, calculate the (i) magnitude of charge on the dipole, and its potential energy. |  |
| :---: | :---: | :---: |
| 32 | a) Derive the expression for the current flowing in an ideal capacitor and its reactance when connected to an ac source of voltage $\mathrm{V}=\mathrm{V}_{0} \sin \omega \mathrm{t}$. <br> b) Draw its phasor diagram. <br> c) If resistance is added in series to capacitor what changes will occur in the current flowing in the circuit and phase angle between voltage and current. <br> OR <br> a) State the principle of ac generator. <br> b) Explain with the help of a well labelled diagram, its working and obtain the expression for the emf generated in the coil. <br> c) Is it possible to generate emf without rotating the coil? Explain | 5 |
| 33 | a) Define a wave front. <br> b) Draw the diagram to show the shape of plane wave front as they pass through (i) a thin prism and (ii) a thin convex lens. State the nature of refracted wave front. <br> c) Verify Snell's law of refraction using Huygens's principle. <br> OR <br> a) State two main considerations taken into account while choosing the objective of astronomical telescope. <br> b) Draw a ray diagram of reflecting type telescope. State its magnifying power. <br> c) State the advantages of reflecting type telescope over the refracting type? | 5 |

## Sample Question Paper

## 2020-2021

## Class XII

## Subject: Political Science

## MM: $\mathbf{8 0}$ MM <br> Time: 3hrs

## Instructions:

i. All Questions are Compulsory.
ii. Section A has 16 Objective Type Questions of 1 mark each.
iii. Section B has 2 passage -based questions 17 and 18 having Multiple Choice Questions of 1 mark each.
iv. Question numbers 19-22 carries 2 marks each. Answer to these questions should not exceed 40 words each.
v. Question numbers $23-27$ carries 4 marks each. Answer to these questions should not exceed 100 words each.
vi. Question numbers $28-29$ pertain to map and cartoon questions carrying 5 marks each to be answered accordingly.
vii. Question numbers $30-32$ carries 6 marks each. Answer to these questions should not exceed 150 words each.

## Section - A

1. Which of these statements about the princely states is incorrect:
a) Some of the princely states clearly wanted to become part of the Indian Union.
b) The Indian government was ready to give autonomy to some regions.
c) First of all, the ruler of Junagarh announced that the state had decided on Independence.
d) Princely states covered one third of the land area of the British Indian Empire.
2. $\qquad$ acts as a think tank of the Union Government.
a) NITI Aayog
b) Yojana Aayog
c) Election Commission of India
d) Ministry of External Affairs
3. Which set of the Countries belonged to the NATO Group?
a) Poland, Britain, Romania
b) USA, Czech Republic, France
c) Britain, France, west Germany
d) Spain, France, East Germany
4. Globalisation leads to each culture becoming
a) More Different
b) More Transparent
c) More Distinctive
d) More Different and Distinctive

$$
\begin{aligned}
& \text { 5. Which factors contributed to Pakistan's failure in building a stable } \\
& \text { democracy? }
\end{aligned}
$$

a) Dominance of the Military
b) Dominance of the clergy
c) Dominance of the landowning aristocracy
d) All of the above
6. Arab Spring began with----
a) Russian Revolution
b) Tunisian Revolution
c) Egyptian Revolution
d)Syrian Revolution
7. 'Choose the wrong statement:
a) Six- point proposal of Sheikh Mujibur Rehman for greater autonomy to East Pakistan.
b) India and Pakistan conduct nuclear tests in 1998.
c) SAFTA signed at the $7^{\text {th }}$ SAARC Summit in Islamabad.
d) India and Bangladesh sign the Farakka Treaty for sharing of the Ganga waters in 1996.
8. In the decade of 1960's, the Congress Party under the leadership of Indira Gandhi was affected by
a) Violence
b) Defection
c) Internal conflicts
d) Censorship
9. $\qquad$ Policy has been adopted by NITI Aayog.
a) Make in India
b) Made in India
c) Start-up India
d) Ayushman Bharat
10) First Gulf War was known as-----------
a) Operation Infinite Reach
b) Operation Enduring Freedom
c) Operation Desert Storm
d) Operation Iraqi Freedom
11. The high point of Cold War was --------
a) Cuban Missile Crises
b) Atomic bomb attack on Hiroshima and Nagasaki
c) Establishment of SEATO and CENTO
d) Establishment of NATO
12) Sardar Vallabhbhai Patel faced key challenges of integration in which of the following states.
a) Hyderabad, Moradabad, Junagarh
b) Hyderabad, Sikandrabad, Jammu
c) Hyderabad, Junagarh, Kashmir
d) Jammu, Junagarh, Kashmir
13) With its pre-intended goal $\qquad$ the NDA III Government started several Socio-economic welfare schemes to make development accessible to the masses.
a) Jai Jawan,Jai Kisan
b) Jai Jawan, Jai Kisan, Jai Vigyan
c) Sabka Saath, Sabka Vikas
d) Garibi Hatao
14) BJP led coalition of 2014 was also called as
a) Majority Coalition
b) Surplus Majority Coalition
c)Clear Majority Coalition
d) Democratic Coalition
15) I.The main agenda of the World Social Forum is
a) Opposition to Terrorism
b) Opposition to Neo-Liberal Globalisation
c) Opposition to Colonialism
d) Opposition to Communism

## OR

II. Globalisation has $\qquad$ dimensions.
a) Political and Social
b) Social and Economic
c) Political and Economic
d) Political, Social and Economic
16. Arrange the following in the chronological order:
I) Establishment of Human Rights Council
II) Yalta Conference
III) Atlantic Charter
iv) India join the UN
a) ii,iv,i,iii
b) iii, ii,iv, i
c) I, ii, iii, iv
d) ii, iii, iv, i

## Section - B

## 17. Read the following passage carefully and answer the questions that follow: (1+1+1+1=4)

America extended massive financial help for reviving Europe's economy under what was called the "Marshall Plan". The US also created a new collective security structure under NATO. Under the Marshall Plan, the Organisation for European Economic Cooperation (OEEC) was established in 1948 to channel aid to the West European States. It became a forum where the Western European States began to cooperate on trade and economic issues. The Council of Europe, established in 1949, was another step forward in political cooperation. The process of economic integration of European capitalist countries proceeded step by step leading to the formation of the European Economic Community (EEC) in 1957.
17.1 What was the "Marshall Plan"?
a) Aid given by the US
b) Economic Aid given by the US
c) Military help given by the US
d) Financial Aid given by the US
17.2 The US created a new collective security structure under which organisation? 1
a) SEATO
b) CENTO
c) NATO
d) Any Other
17.3 Under which plan the organisation for European Economic Cooperation?
was established?
a) Maastricht Plan
b) Marshall Plan
c) American Plan
d) Any other Plan
17.4 Which organisation became a forum where the western European states began to cooperate on trade and economic issues?
a) Organisation for European Political Cooperation
b) Organisation for European Economic Cooperation
c) Organisation for European Military Cooperation
d) Any other Organisation
18. Read the following passage carefully and answer the questions that follow:

$$
(1+1+1+1=4)
$$

The era of Liberalisation, Privatisation and Globalisation from the early 1990's, is attributed to the emergence of a competitive market society encompassing all important sectors of economy, society and polity thus paving the way for the "Third Democratic Upsurge'. The Democratic Upsurge represents a competitive electoral market which is based not on the principle of survival of the fittest but rather the survival of the ablest. It underlines three shifts in India's electoral market: from State to Market, from Government to Governance, from State as Controller to State as Facilitator. Moreover, the Third Democratic Upsurge seeks to promote the participation of the youth who constitute a significant chunk of Indian society as the real game changers in view of their increasing electoral preference for both development and governance in India's contemporary democratic politics.
18.1 The early 1990 saw the era of-----
a) Liberalisation
b) Privatisation
c) Globalisation
d) All of the above
18.2 The "Third Democratic Upsurge" is based on the principle of
a) Survival of the fittest
b) Survival of the meanest
c) Survival of the fierce
d) Survival of the ablest
18.3 How many "Democratic Upsurges" are identified in post-independence history of India?
a) 1
b) 2
c) 3
d) 4
18.4 The 'Third Democratic Upsurge" seeks to promote the $\qquad$ who constitute a significant chunk of Indian society.
a) Participation of Student
b) Participation of Opposition Leaders
c) Opposition of Senior Citizens
d) None of these

## Section-C

19. What was the impact of the Emergency on newspapers and magazines?
20. State two objectives of NITI Aayog.
21. What were the changes that occurred in Indian Politics after 1977 elections?

> OR

2
Describe the provision of National Emergency.

## Section-D

23. "The South Asian experience of democracy has expanded the global imagination of democracy". Explain the statement with examples.

## 24. Explain Cuban Missile Crises?

25. Highlight the salient features of Indo-Israeli relations in contemporary times.

> OR

4
Elaborate the Nuclear Policy of India.
26. "China followed its own path in introducing a market economy". Justify this statement with four suitable arguments?

## OR

How far is it correct to describe ASEAN as a new Centre of power in the world?
27. State the political impact of globalization on the world.

## Section-E

28. In the given outline political map of India, five states have been marked as (A), (B), (C), (D), (E). Identify these states on the basis of the information given below and write their correct names in your answer book along with their respective serial number of the information used and the concerned alphabets as per format that follows:

$$
1+1+1+1+1=5
$$

i. The state related to Karpuri Thakur, who implemented reservation for backward class.
ii. The state related to K Kamraj, who started the Mid-Day Meal program for School Students.
iii. The state related to Samajwadi leader and thinker Ram Manohar Lohiya.
iv. The state related to Sardar Vallabh Bhai Patel who undertook integration of princely states.
v. The state from where article 370 was revoked.

| Sr Number of the <br> information used | Alphabet Concerned | Name of the State |
| :--- | :--- | :--- |
|  |  |  |
|  |  |  |
|  |  |  |
|  |  |  |
|  |  |  |

(The map given below is the old map of India that corresponds to the questions asked above.)


Note: The following questions are for Visually Impaired Candidates only in lieu of Qn. 28 (Map Question).
i. Name the state related to Karpuri Thakur, who implemented reservation for backward class.
ii. Name the state related to K Kamraj, who started the Mid-Day Meal program for School Students.
iii. Name the state related to Samajwadi leader and thinker Ram Manohar Lohiya.
iv. Name the state related to Sardar Vallabh Bhai Patel who undertook integration of princely states.
v. Name the state from where article 370 was revoked.
29. Study the cartoon given below carefully and answer the questions that follow. Answers to 2 mark questions should not exceed 40 words.

i) What does this cartoon depict?
ii) What have been the reasons for immense influence of US on UN? Give any two reasons.
III) Is the cartoon still relevant?

Note: The following questions are for Visually Impaired candidates only in lieu of Qn. 29 (cartoon question) 2+2+1=5
i) Name the present Secretary General of UN. He/she belongs to which country?
li) Name any four permanent members of UN Security Council.
III) Write the main objective of the UNO.

## Section-F

30. Critically examine the consequences of disintegration of the Soviet Union. 6 OR

Analyse the factors responsible for the disintegration of USSR with special reference to

Perestroika and Glasnost.
31. a). How did the reorganisation of states take place in India after its Independence? Explain.

## OR

b). Explain the process of partition of India in 1947.
32. Describe the major developments that have taken place in Indian Politics during The NDA III \& IV.

## OR

Describe any three points of consensus that emerged among most of the political parties in India in spite of severe competition and conflicts.

