## Sample Paper

## General Instructions

1. The Question Paper contains three sections.
2. Section $A$ has $\mathbf{2 5}$ questions. Attempt any $\mathbf{2 0}$ questions.
3. Section B has 24 questions. Attempt any 20 questions.
4. Section C has $\mathbf{6}$ questions. Attempt any 5 questions.
5. All questions carry equal marks.
6. $\quad$ There is no negative marking.

## SECTIO N-A

This section consists of 25 multiple choice questions with overall choice to attempt any 20 questions. In case more than desirable number of questions are attempted, ONLY first 20 will be considered for evaluation.

1. If phosphorous acid is allowed to react with sufficient quantity of KOH , the product obtained is
(a) $\mathrm{K}_{3} \mathrm{PO}_{3}$
(b) $\mathrm{KH}_{2} \mathrm{PO}_{3}$
(c) $\mathrm{K}_{2} \mathrm{HPO}_{3}$
(d) $\mathrm{KHPO}_{3}$
2. Toluene reacts with a halogen in the presence of iron (III) chloride giving ortho and para halo compounds. The reaction is
(a) electrophilic elimination reaction
(b) electrophilic substitution reaction
(c) free radical addition reaction
(d) nucleophilic substitution reaction
3. Maximum amount of a solid solute that can be dissolved in a specified amount of a given liquid solvent does not depend upon
(a) temperature
(b) nature of solute
(c) pressure
(d) nature of solvent
4. Which of the following acids forms three series of salts?
(a) $\mathrm{H}_{3} \mathrm{PO}_{2}$
(b) $\mathrm{H}_{3} \mathrm{BO}_{3}$
(c) $\mathrm{H}_{3} \mathrm{PO}_{4}$
(d) $\mathrm{H}_{3} \mathrm{PO}_{3}$
5. A beaker contains a solution of substance ' $A$ '. Precipitation of substance ' $A$ ' takes place when small amount of ' $A$ ' is added to the solution. The solution is
(a) saturated
(b) supersaturated
(c) unsaturated
(d) concentrated
6. In fibrous proteins, polypeptide chains are held together by
(a) van der waals forces
(b) electrostatic forces of attraction
(c) hydrogen bonds
(d) covalent bonds
7. Which element out of $\mathrm{He}, \mathrm{Ar}, \mathrm{Kr}$ and Xe forms least number of compounds ?
(a) He
(b) Ar
(c) Kr
(d) Xe
8. Which one is most reactive towards $\mathrm{S}_{\mathrm{N}} 1$ reaction?
(a) $\mathrm{C}_{6} \mathrm{H}_{5} \mathrm{CH}\left(\mathrm{C}_{6} \mathrm{H}_{5}\right) \mathrm{Br}$
(b) $\mathrm{C}_{6} \mathrm{H}_{5} \mathrm{CH}\left(\mathrm{CH}_{3}\right) \mathrm{Br}$
(c) $\mathrm{C}_{6} \mathrm{H}_{5} \mathrm{C}\left(\mathrm{CH}_{3}\right)\left(\mathrm{C}_{6} \mathrm{H}_{5}\right) \mathrm{Br}$
(d) $\mathrm{C}_{6} \mathrm{H}_{5} \mathrm{CH}_{2} \mathrm{Br}$
9. The element which has not yet been reacted with $F_{2}$ is
(a) Ar
(b) Xe
(c) Kr
(d) Rn
10. The crystal system of a compound with unit cell dimensions " $a=0.387, b=0.387$ and $c=0.504 \mathrm{~nm}$ and $\alpha=\beta=90^{\circ}$ and $\gamma=120^{\circ}$ " is :
(a) cubic
(b) hexagonal
(c) orthorhombic
(d) rhombohedral
11. At equilibrium the rate of dissolution of a solid solute in a volatile liquid solvent is
(a) less than the rate of crystallisation
(b) greater than the rate of crystallisation
(c) equal to the rate of crystallisation
(d) zero
12. The $\mathrm{Ca}^{2+}$ and $\mathrm{F}^{-}$are located in $\mathrm{CaF}_{2}$ crystal, respectively at face centred cubic lattice points and in
(a) tetrahedral voids
(b) half of tetrahedral voids
(c) octahedral voids
(d) half of octahedral voids
13. The order of reactivities of the following alkyl halides for a $\mathrm{S}_{\mathrm{N}} 2$ reaction is
(a) $\mathrm{RF}>\mathrm{RCl}>\mathrm{RBr}>\mathrm{RI}$
(b) $\mathrm{RF}>\mathrm{RBr}>\mathrm{RCl}>\mathrm{RI}$
(c) $\mathrm{RCl}>\mathrm{RBr}>\mathrm{RF}>\mathrm{RI}$
(d) $\mathrm{RI}>\mathrm{RBr}>\mathrm{RCl}>\mathrm{RF}$
14. When chlorine is passed through propene at $400^{\circ} \mathrm{C}$, which of the following is formed ?
(a) PVC
(b) Allyl chloride
(c) Alkyl chloride
(d) 1,2-Dichloroethane
15. Which of the following statement is true ?
(a) Epimers are also anomers
(b) Anomers are also epimers
(c) Both of the above statements are true
(d) Neither of the two statement is true
16. 2-Bromopentane is heated with potassium ethoxide in ethanol. The major product obtained is
(a) 2-ethoxypentane
(b) pentene-1
(c) trans-2-pentene
(d) cis-pentene-2
17. Which of the following is the life saving mixture for an asthma patient?
(a) Mixture of helium and oxygen
(b) Mixture of neon and oxygen
(c) Mixture of xenon and nitrogen
(d) Mixture of argon and oxygen
18. Which of the following is not true in case of reaction with heated copper at $300^{\circ} \mathrm{C}$ ?
(a) Phenol $\longrightarrow$ Benzyl alcohol
(b) Secondary alcohol $\longrightarrow$ Ketone
(c) Primary alcohol $\longrightarrow$ Aldehyde
(d) Tertiary alcohol $\longrightarrow$ Olefin
19. In CsCl type structure, the co-ordination number of $\mathrm{Cs}^{+}$and $\mathrm{Cl}^{-}$respectively are :
(a) 6,6
(b) 6,8
(c) 8,8
(d) 8,6
20. Propene, $\mathrm{CH}_{3} \mathrm{CH}=\mathrm{CH}_{2}$ can be converted into 1-propanol by oxidation. Indicate which set of reagents amongst the following is ideal to effect the above conversion?
(a) $\mathrm{KMnO}_{4}$ (alkaline)
(b) Osmium tetraoxide $\left(\mathrm{OsO}_{4} / \mathrm{CH}_{2} \mathrm{Cl}_{2}\right)$
(c) $\mathrm{B}_{2} \mathrm{H}_{6}$ and alk. $\mathrm{H}_{2} \mathrm{O}_{2}$
(d) $\mathrm{O}_{3} / \mathrm{Zn}$
21. The value of Henry's constant $K_{\mathrm{H}}$ is $\qquad$ .
(a) greater for gases with higher solubility.
(b) greater for gases with lower solubility.
(c) constant for all gases.
(d) not related to the solubility of gases.
22. Give IUPAC name of the compound given below.

(a) 2-chloro-5-hydroxyhexane
(b) 2-hydroxy-5-chlorohexane
(c) 5-chlorohexan-2-ol
(d) 2-chlorohexan-5-ol
23. Which of the following noble gases has the highest positive electron gain enthalpy value?
(a) Helium
(b) Krypton
(c) Argon
(d) Neon
24. Benedict's reagent is reduced by which type of carbohydrates?
(a) Acetals
(b) Hemiacetals
(c) Glucose pentaacetate
(d) None of the three
25. When $m$-chloronitrobenzene is treated with sodamide in presene of liquid ammonia, main product is
(a) $o$-Nitroaniline
(b) $p$-Nitroaniline
(c) $m$-Nitroaniline
(d) All of these

## SECTIO N-B

This section consists of 24 multiple choice questions with overall choice to attempt any 20 questions. In case more than desirable number of questions are attempted, ONLY first 20 will be considered for evaluation.
26. Comment on the following reactions
(i) $\mathrm{CH}_{3} \mathrm{OH}+\mathrm{NaCl} \longrightarrow$
(ii) $\mathrm{CH}_{3} \mathrm{OH}+\mathrm{HCl} \longrightarrow$
(a) Both reactions take place easily
(b) Only reaction (ii) takes place
(c) Reaction (ii) takes places faster than (i)
(d) None of the two reactions in possible
27. On heating, lead (II) nitrate gives a brown gas (A). The gas (A) on cooling changes to a colourless solid/liquid (B). (B) on heating with NO changes to a blue solid (C). The oxidation number of nitrogen in solid (C) is :
(a) +5
(b) +2
(c) +3
(d) +4
28. A solution of urea (mol. mass $56 \mathrm{~g} \mathrm{~mol}^{-1}$ ) boils at $100.18^{\circ} \mathrm{C}$ at the atmospheric pressure. If $\mathrm{K}_{\mathrm{f}}$ and $\mathrm{K}_{\mathrm{b}}$ for water are 1.86 and $0.512 \mathrm{~K} \mathrm{~kg} \mathrm{~mol}^{-1}$ respectively, the above solution will freeze at
(a) $0.654^{\circ} \mathrm{C}$
(b) $-0.654^{\circ} \mathrm{C}$
(c) $6.54^{\circ} \mathrm{C}$
(d) $-6.54^{\circ} \mathrm{C}$
29. White phosphorus on reaction with concentrated NaOH solution in an inert atmosphere of $\mathrm{CO}_{2}$ gives phosphine and compound $(X)$. $(X)$ on acidification with HCl gives compound $(Y)$. The basicity of compound $(Y)$ is:
(a) 2
(b) 1
(c) 4
(d) 3
30. Increase in pH of the solution converts $\mathrm{RCHCOO}^{-}$to
(a) RCHCOOH
(b) $\stackrel{\stackrel{+}{\mathrm{N}} \mathrm{H}_{2}}{\mathrm{RCHCOOH}}{ }^{-}$
(c)

(d) None
31. The correct order of the oxidation states of nitrogen in $\mathrm{NO}, \mathrm{N}_{2} \mathrm{O}, \mathrm{NO}_{2}$ and $\mathrm{N}_{2} \mathrm{O}_{3}$ is:
(a) $\mathrm{NO}_{2}<\mathrm{NO}<\mathrm{N}_{2} \mathrm{O}_{3}<\mathrm{N}_{2} \mathrm{O}$
(b) $\mathrm{NO}_{2}<\mathrm{N}_{2} \mathrm{O}_{3}<\mathrm{NO}<\mathrm{N}_{2} \mathrm{O}$
(c) $\mathrm{N}_{2} \mathrm{O}<\mathrm{N}_{2} \mathrm{O}_{3}<\mathrm{NO}<\mathrm{NO}_{2}$
(d) $\mathrm{N}_{2} \mathrm{O}<\mathrm{NO}<\mathrm{N}_{2} \mathrm{O}_{3}<\mathrm{NO}_{2}$
32. Which of the following compounds is aromatic alcohol?

(A)

(B)

(C)

(D)
(a) $\mathrm{A}, \mathrm{B}, \mathrm{C}, \mathrm{D}$
(b) $\mathrm{A}, \mathrm{D}$
(c) $\mathrm{B}, \mathrm{C}$
(d) A
33. If the boiling point of $\mathrm{H}_{2} \mathrm{O}$ is 373 K , the boiling point of $\mathrm{H}_{2} \mathrm{~S}$ will be :
(a) less than 300 K
(b) equal to 373 K
(c) more than 373 K
(d) greater than 300 K but less than 373 K
34. Osmotic pressure of $0.4 \%$ urea solution is 1.64 atm and that of $3.42 \%$ cane sugar is 2.46 atm . When the above two solutions are mixed, the osmotic pressure of the resulting solution is :
(a) 0.82 atm
(b) 2.46 atm
(c) 1.64 atm
(d) 4.10 atm
35. Osmotic pressure of blood is 7.40 atm , at $27^{\circ} \mathrm{C}$. Number of moles of glucose to be used per litre for an intravenous injection that is to have same osmotic pressure of blood is:
(a) 0.3
(b) 0.2
(c) 0.1
(d) 0.4
36. Aryl halides are extremely less reactive towards nucleophilic substitution than alkylhalides. Which of the following accounts for this?
(i) Due to resonance in aryl halides.
(ii) In alkyl halides carbon atom in $\mathrm{C}-\mathrm{X}$ bond is $\mathrm{sp}^{2}$ hybridised whereas in aryl halides carbon atom in $\mathrm{C}-\mathrm{X}$ bond is $\mathrm{sp}^{3}$ hybridized.
(iii) Due to stability of phenyl cation.
(iv) Due to possible repulsion there are less chances of nucleophile to approach electron rich arenes.
(a) (i), (ii) and (iv)
(b) (i), (ii) and (iii)
(c) (i) and (iv)
(d) (ii), (iii) and (iv)
37. Reaction of an inorganic sulphite X with dilute $\mathrm{H}_{2} \mathrm{SO}_{4}$ generates compound Y . Reaction of Y with NaOH gives X . Further, the reaction of X with Y and water affords compound Z . Y and Z , respectively, are:
(a) $\mathrm{SO}_{2}$ and $\mathrm{Na}_{2} \mathrm{SO}_{3}$
(b) $\mathrm{SO}_{3}$ and $\mathrm{NaHSO}_{3}$
(c) $\mathrm{SO}_{2}$ and $\mathrm{NaHSO}_{3}$
(d) S and $\mathrm{Na}_{2} \mathrm{SO}_{3}$
38. Which of the following statements is incorrect?
(a) In $\alpha$-helix structure a polypeptide chain forms all possible hydrogen bonds by twisting into a right handed screw.
(b) In $\beta$-structure of proteins all peptide chains are stretched out to nearly maximum extension.
(c) During denaturation $1^{\circ}$ and $2^{\circ}$ structures are destroyed but $3^{\circ}$ structure remains intact.
(d) All the above statements are incorrect.
39. What is the product of the following reaction?

(a) $\mathrm{N}, \mathrm{N}$-dimethylaniline
(b) phenyllithium $\left(\mathrm{C}_{6} \mathrm{H}_{5} \mathrm{Li}\right)$
(c) para-chloro-N, N-dimethylaniline
(d) meta-chloro-N, N-dimethylaniline
40. Arrange the following bonds according to their average bond energies in descending order: $\mathrm{C}-\mathrm{Cl}, \mathrm{C}-\mathrm{Br}, \mathrm{C}-\mathrm{F}, \mathrm{C}-\mathrm{I}$
(a) $\mathrm{C}-\mathrm{F}>\mathrm{C}-\mathrm{Cl}>\mathrm{C}-\mathrm{Br}>\mathrm{C}-\mathrm{I}$
(b) $\mathrm{C}-\mathrm{Br}>\mathrm{C}-\mathrm{I}>\mathrm{C}-\mathrm{C} 1>\mathrm{C}-\mathrm{F}$
(c) $\mathrm{C}-\mathrm{I}>\mathrm{C}-\mathrm{Br}>\mathrm{C}-\mathrm{Cl}>\mathrm{C}-\mathrm{F}$
(d) $\mathrm{C}-\mathrm{Cl}>\mathrm{C}-\mathrm{Br}>\mathrm{C}-$ I $>\mathrm{C}-\mathrm{F}$
41. An element (atomic mass $=100 \mathrm{~g} / \mathrm{mol}$ ) having bcc structure has unit cell edge 400 pm . Then, density of the element is
(a) $10.376 \mathrm{~g} / \mathrm{cm}^{3}$
(b) $5.188 \mathrm{~g} / \mathrm{cm}^{3}$
(c) $7.289 \mathrm{~g} / \mathrm{cm}^{3}$
(d) $2.144 \mathrm{~g} / \mathrm{cm}^{36}$
42. Which of the following synthetic schemes would be the best for the synthesis of the compound, 2-bromo-1-chloro-4nitrobenzene?


2-bromo-1-chloro-4-nitrobenzene
(a)

(b)

(c)

(d)

43. In the following reactions, products (A) and (B), respectively, are:
$\mathrm{NaOH}+\mathrm{Cl}_{2} \rightarrow(\mathrm{~A})+$ side products (hot and conc.)
$\mathrm{Ca}(\mathrm{OH})_{2}+\mathrm{Cl}_{2} \rightarrow(\mathrm{~B})+$ side products (dry)
(a) $\mathrm{NaClO}_{3}$, and $\mathrm{Ca}(\mathrm{OCl})_{2}$
(b) $\mathrm{NaClO}_{3}$ and $\mathrm{Ca}\left(\mathrm{ClO}_{3}\right)_{2}$
(c) NaOCl and $\mathrm{Ca}(\mathrm{OCl})_{2}$
(d) NaOCl and $\mathrm{Ca}\left(\mathrm{ClO}_{3}\right)_{2}$
44. A solution of sucrose (molar mass $=342 \mathrm{~g} \mathrm{~mol}^{-1}$ ) has been prepared by dissolving 68.5 g of sucrose in 1000 g of water. The freezing point of the solution obtained will be ( $K_{\mathrm{f}}$ for water $=1.86 \mathrm{~K} \mathrm{~kg} \mathrm{~mol}^{-1}$ ).
(a) $-0.372^{\circ} \mathrm{C}$
(b) $-0.520^{\circ} \mathrm{C}$
(d) $+0.372^{\circ} \mathrm{C}$
(d) $-0.570^{\circ} \mathrm{C}$

Given below are two statements labelled as Assertion (A) and Reason (R). Select the most appropriate answer from the options given below:
(a) Both $A$ and $R$ are true and $R$ is the correct explanation of $A$.
(b) Both $A$ and $R$ are true but $R$ is not the correct explanation of $A$.
(c) $A$ is true but $R$ is false.
(d) $A$ is false and $R$ is also false.
45. Assertion : With HI, anisole gives iodobenzene and methanol.

Reason : $\mathrm{I}^{-}$is a good leaving group.
46. Assertion : Fluorine exists only in -1 oxidation state.

Reason : Fluorine has $2 s^{2} 2 p^{5}$ configuration.
47. Assertion : Graphite is an example hexagonal crystal system.

Reason : For a hexagonal system, $a=b \neq c, \alpha=\beta=90^{\circ}, \gamma=120^{\circ}$.
48. Assertion : The fluorine has lower reactivity.

Reason : $\mathrm{F}-\mathrm{F}$ bond has low bond dissociation energy.
49. Assertion : Reaction of $\mathrm{HNO}_{3}$ and $\mathrm{H}_{2} \mathrm{SO}_{4}$ with phenol yields nitrophenol.

Reason : $-\mathrm{NO}_{2}$ can displace OH from phenol.

## SECTION-C

This section consists of 6 multiple choice questions with an overall choice to attempt any 5. In case more than desirable number of questions are attempted, ONLY first 5 will be considered for evaluation.
50. Match the starting materials given in Column I with the products formed by these (Column II) in the reaction with HI.

|  | Column-I |  | Column-II |
| :---: | :---: | :---: | :---: |
| (A) | $\mathrm{CH}_{3}-\mathrm{O}-\mathrm{CH}_{3}$ | (i) |  |
| (B) |  | (ii) |  |
| (C) |  | (iii) |  |
| (D) |  | (iv) | $\mathrm{CH}_{3}-\mathrm{OH}+\mathrm{CH}_{3}-\mathrm{I}$ |

(a) A -(ii), B -(iii), C -(iv), D -(i)
(b) $\mathrm{A}-(\mathrm{iv}), \mathrm{B}-(\mathrm{iii}), \mathrm{C}-(\mathrm{i}), \mathrm{D}-(\mathrm{ii})$
(c) $\mathrm{A}-$ (iv), B -(ii), C -(iii), $\mathrm{D}-$ (i)
(d) A -(iv), B -(iii), C -(ii), D -(i)
51. Choose the correct analogy.

Compounds of Phosphorus (A) : : Materials for Preparation (B).
(a) A: $4 \mathrm{H}_{3} \mathrm{PO}_{3}:: \mathrm{B}: \mathrm{P}_{2} \mathrm{O}_{3}+\mathrm{H}_{2} \mathrm{O}$
(b) $\mathrm{A}: 2 \mathrm{H}_{3} \mathrm{PO}_{3}:: \mathrm{B}: \mathrm{P}_{4} \mathrm{O}_{10}+\mathrm{H}_{2} \mathrm{O}$
(c) $\mathrm{A}: \mathrm{PH}_{3}:$ : B : Black $\mathrm{P}+$ alkali
(d) $\mathrm{A}: \mathrm{H}_{3} \mathrm{PO}_{2}:$ : B : White $\mathrm{P}+$ alkali
52.


For Kolbe's reaction, complete the following analogy where $A$ is the product for step 1 and $B$ is the product for step 2.
(a) A: Phenoxide::B : Salicylaldehyde
(b) A:Phenoxide : : B : Benzaldehyde
(c) A : Phenoxide:: B : Salicylic acid
(d) A: Phenoxide : : B: Benzoic acid

Case Study : Read the following paragraph and answers the questions.
It is typical of aryl halides that they undergo nucleophilic substitution only with extreme difficulty. Except for certain industrial processes where very severe conditions are feasible, one does not ordinarily prepare phenols (ArOH), ethers (ArOR), amines $\left(\mathrm{ArNH}_{2}\right)$, on nitriles (ArCN) by nucleophilic attack on aryl halides. The aryl halides cannot be used in the Friedel-Crafts's alkylation reaction just like alkyl halides, which can be used.

However, aryl halides do undergo nucleophilic substitution readily if the aromatic ring contains, in addition to halogen, certain other properly placed groups. The presence of electron withdrawing groups like $-\mathrm{NO}_{2},-\mathrm{CF}_{3}$ at ortho or para position to the halogen atom makes the aryl halides more susceptible to nucleophilic attack.
53. Benzene reacts with $n$-propyl chloride in the presence of anhydrous $\mathrm{AlCl}_{3}$ to give
(a) 3-propyl-1-chlorobenzene
(b) $n$-Propylbenzene
(c) No reaction
(d) Isopropylbenzene
54. Read the following statements and choose the correct code
(i) $\mathrm{S}_{\mathrm{N}} 2$ reactions follows a second order kinetics whereas $\mathrm{S}_{\mathrm{N}} 1$ reactions follows the first order kinetics
(ii) $\mathrm{S}_{\mathrm{N}} 1$ reactions follows the second order kinetics whereas $\mathrm{S}_{\mathrm{N}} 2$ follows the first order kinetics
(iii) $\mathrm{S}_{\mathrm{N}} 2$ reactions take place in a single step whereas $\mathrm{S}_{\mathrm{N}} 1$ reactions take place in two steps
(iv) Tertiary alkyl halides are least reactive towards $\mathrm{S}_{\mathrm{N}} 2$ reactions but we observe high reactivity towards $\mathrm{S}_{\mathrm{N}} 1$ reaction.
(a) (ii) and (iv) are correct
(b) (i), (iii) and (iv) are correct
(c) (i), (ii) and (iv) are correct
(d) (ii), (iii) and (iv) are correct
55. Consider the following bromides :

(A)

(B)

(C)

The correct order of $\mathrm{S}_{\mathrm{N}} 1$ reactivity is
(a) B $>$ C $>$ A
(b) B $>$ A $>$ C
(c) C $>$ B $>$ A
(d) A $>$ B $>$ C

## OMR ANSWER SHEET <br> Sample Paper No -7

* Use Blue / Black Ball pen only.
* Please do not make any atray marks on the answer sheet.
* Rough work must not be done on the answer sheet.
* Darken one circle deeply for each question in the OMR Answer sheet, as faintly darkend / half darkened circle might by rejected.

Start time : $\qquad$ End time $\qquad$ Time taken

1. Name (in Block Letters)

2. Date of Exam

3. Candidate's Signature


SECTION-A

| 1. | (a) | (b) | (C) | (d) | 9. | (a) | (b) | (C) | (d) | 18. | (a) | (b) | (C) | (d) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 2. | (a) | (b) | (c) | (d) | 10. | (a) | (b) | (C) | (d) | 19. | (a) | (b) | (C) | (d) |
| 3. | (a) | (b) | (C) | (d) | 11. | (a) | (b) | (C) | (d) | 20. | (a) | (b) | (C) | (d) |
| 4. | (a) | (b) | (C) | (d) | 12. | (a) | (b) | (C) | (d) | 21. | (a) | (b) | (C) | (d) |
| 5. | (a) | (b) | (C) | (d) | 13. | (a) | (b) | (C) | (d) | 22. | (a) | (b) | (C) | (d) |
| 6. | (a) | (b) | (C) | (d) | 14. | (a) | (b) | (C) | (d) | 23. | (a) | (b) | (C) | (d) |
| 7. | (a) | (b) | (C) | (d) | 15. | (a) | (b) | (C) | (d) | 24. | (a) | (b) | (C) | (d) |
| 8. | (a) | (b) | (C) | (d) | 16. | (a) | (b) | (C) | (d) | 25. | (a) | (b) | (C) | (d) |
| 9. | (a) | (b) | (C) | (d) | 17. | (a) | (b) | (C) | (d) |  |  |  |  |  |

SECTION-B

| 26. | (a) | (b) | (C) | (d) | 34. | (a) | (b) | (C) | (d) | 42. | (a) | (b) | (C) | (d) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 27. | (a) | (b) | (C) | (d) | 35. | (a) | (b) | (C) | (d) | 43. | (a) | (b) | (C) | (d) |
| 28. | (a) | (b) | (C) | (d) | 36. | (a) | (b) | (C) | (d) | 44. | (a) | (b) | (C) | (d) |
| 29. | (a) | (b) | (C) | (d) | 37. | (a) | (b) | (C) | (d) | 45. | (a) | (b) | (C) | (d) |
| 30. | (a) | (b) | (C) | (d) | 38. | (a) | (b) | (C) | (d) | 46. | (a) | (b) | (C) | (d) |
| 31. | (a) | (b) | (C) | (d) | 39. | (a) | (b) | (C) | (d) | 47. | (a) | (b) | (C) | (d) |
| 32. | (a) | (b) | (C) | (d) | 40. | (a) | (b) | (C) | (d) | 48. | (a) | (b) | (C) | (d) |
| 33. | (a) | (b) | (C) | (d) | 41. | (a) | (b) | (C) | (d) | 49. | (a) | (b) | (C) | (d) |

SECTION-C

| 50. | (a) | (b) | (c) | (d) | 52. | (a) | (b) | (c) | (d) | 54. | (a) | (b) | (c) | (d) |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| 51. | (a) | (b) | (c) | (d) | 53. | (a) | (b) | (c) | (d) | 55. | (a) | (b) | (c) | (d) |


| No. of Qns. Attempted |  | Correct |  | Incorrect |  | Marks |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- |

