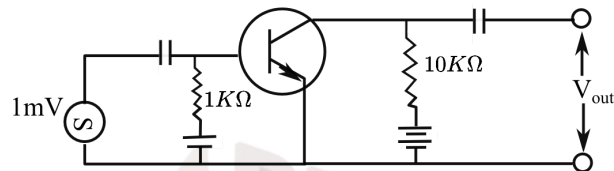


Physics

Single Correct Questions +3 | -1.00

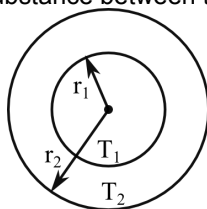
1. Pressure P varies as $P = \frac{\alpha}{\beta} \exp\left(\frac{-\alpha}{K_B \theta} Z\right)$ where Z denotes distance, K_B Boltzman's constant, θ absolute temperature and α, β are constants. Derive the dimensions of β
- (A) $[M^{-1}LT^{-2}]$ (B) $[M^0L^0T^0]$ (C) $[M^0L^2T^0]$ (D) $[M^0L^{-1}T^{-2}]$
2. The length, breadth and thickness of a block are given by $l = 12\text{cm}$, $b = 6\text{cm}$ and $t = 2.45\text{cm}$. The volume of the block according to the idea of significant digits should be :
- (A) $1 \times 10^2\text{cm}^3$ (B) $2 \times 10^2\text{cm}^3$
 (C) $1.764 \times 10^2\text{cm}^3$ (D) None of these
3. In the following common emitter configuration a npn transistor with current gain $\beta = 100$ is used. The output voltage of the amplifier will be:



- (A) 10 mV (B) 0.1 mV (C) 1.0 V (D) 10 V
4. The area of the B-H hysteresis loop is an indication of:
- (A) the permeability of the medium
 (B) the susceptibility of the substance
 (C) the retentivity of the material
 (D) the energy dissipated per cycle
5. The ends of a stretched wire of length L are fixed at $x = 0$ and $X = L$. In one experiment, the displacement of the wire is $y_1 = A \sin(\pi x/L) \sin \omega t$ and energy is E_1 and in another experiment its displacement is $y_2 = A \sin(2\pi x/L) \sin 2 \omega t$ and energy is E_2 . Then
- (A) $E_2 = E_1$ (B) $E_2 = 2E_1$ (C) $E_2 = 4E_1$ (D) $E_2 = 16E_1$

Space for rough use

6. The figure shows a system of two thin concentric spherical shells of radii r_1 and r_2 and kept at temperature T_1 and T_2 respectively. The radial rate of flow of heat in a substance between the two concentric spheres is proportional to



- (A) $\frac{r_2 - r_1}{r_1 r_2}$ (B) $\ln\left(\frac{r_2}{r_1}\right)$ (C) $\frac{r_1 r_2}{r_2 - r_1}$ (D) $\ln(r_2 - r_1)$
7. In a series L - C - R circuit the frequencies f_1 and f_2 at which the current amplitude falls to $\frac{1}{\sqrt{2}}$ of the current at resonance, are separated by an interval equal to :
- (A) $\frac{R}{2\pi L}$ (B) $\frac{2\pi L}{R}$ (C) $\frac{R}{L}$ (D) $\frac{L}{R}$
8. The binding energies of the atoms of elements A and B are E_a and E_b respectively. Three atoms of the element B fuse to give one atom of element A. This fusion process is accompanied by release of energy e . Then E_a , E_b and e are related to each other as :
- (A) $E_a + e = 3E_b$ (B) $E_a = 3E_b$ (C) $E_a - e = 3E_b$ (D) $E_a + 3E_b + e = 0$
9. A stepdown transformer of transformation ratio 3 has an efficiency of 80%. The input power of 360 W is at a voltage of 120 V. The input current is :
- (A) 3 A (B) 0.33 A (C) 2.4 A (D) 0.24 A
10. The wave length of K_α lines given by molybdenum (Atomic no. 42) is 0.7 \AA . Then the wave length of K_α for zinc (Atomic no. 30) will be:
- (A) 1.4 \AA (B) 1.0 \AA (C) 0.7 \AA (D) 0.35 \AA
11. A Galilean's telescope has an objective of focal length 100 cm and magnifying power 50. The distance between the two lenses in normal adjustment will be
- (A) 96 cm (B) 98 cm (C) 102 cm (D) 104 cm
12. Three polaroids are parallel to each other and the angle between transmission axes of successive plates is 45° . The fraction of incident light intensity transmitted through all the three polaroids is
- (A) $\frac{1}{\sqrt{2}}$ (B) $\frac{1}{2}$ (C) $\frac{1}{4}$ (D) $\frac{1}{8}$

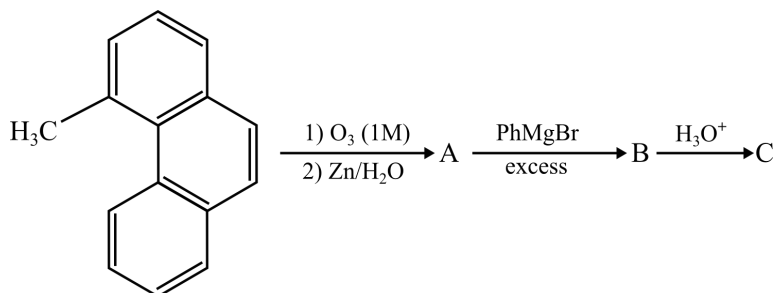
Space for rough use

13. Light of wavelength 5500\AA is incident normally on a slit. The emergent beam forms a diffraction pattern on a screen 2.5 metre away. If the width of the slit is 0.15 cm, then the width of the central maximum is :
- (A) 18.3 cm (B) 1.83 cm (C) 0.183 cm (D) 0.0183 cm
14. The relative density of a material is found by weighing it first in air and then in water. If the weight in air is $10.0 \pm 0.1\text{ gm}$ and weight in water is $5.0 \pm 0.1\text{ gm}$, the maximum permissible percentage error in relative density is
- (A) 1 (B) 2 (C) 3 (D) 5
15. A body of mass m and radius R is rolling horizontally, without slipping, with speed v . It then rolls up a hill without slipping to a maximum height $h = \frac{3v^2}{4g}$. What is the moment of inertia of the body?
- (A) $mR^2/2$ (B) mR^2 (C) $\frac{2}{3}mR^2$ (D) $\frac{2}{5}mR^2$
16. Space between two thin concentric spherical shells of radii a and b is filled with a medium of resistivity ρ . The resistance of the intergap between the two spheres will be
- (A) $\frac{\rho}{4\pi} \left(\frac{1}{a} + \frac{1}{b} \right)$ (B) $\frac{\rho}{4\pi} \left(\frac{1}{a} - \frac{1}{b} \right)$ (C) $\frac{\rho}{4\pi} \frac{ab}{(a+b)}$ (D) $\frac{\rho}{4\pi} \frac{ab}{(a-b)}$
17. The displacement of a particle executing periodic motion is given by, $y = 8 \sin^2 \left(\frac{t}{2} \right) \sin(500t)$. How many component simple harmonic waves are there?
- (A) 3 (B) 4 (C) 5 (D) 6
18. S_1 and S_2 are two sound sources of frequencies 320 Hz and 324 Hz respectively placed at a large distance apart. The velocity, with which an observer should walk on the line S_1S_2 , so that he may hear no beats will be nearly (velocity of sound = 332 m/s)
- (A) 1 m/s (B) 2 m/s (C) 3 m/s (D) 4 m/s
19. A swimmer crosses a flowing stream of width ω to and fro along the shortest path in time t_1 . The time taken to cover the same distance up and down the stream is t_2 . If t_3 is the time the swimmer would take to swim a distance 2ω in still water, then
- (A) $t_1^2 = t_2 t_3$ (B) $t_2^2 = t_1 t_3$ (C) $t_3^2 = t_1 t_2$ (D) $t_3 = t_1 + t_2$
20. A small metal sphere of radius r and density ρ falls from rest in a viscous liquid of density σ and coefficient of viscosity η . Due to friction, heat, is produced. The expression for the rate of production of heat when the sphere has acquired the terminal velocity is
- (A) $\left[\frac{8\pi g}{27\eta} (\rho - \sigma)^2 \right] r^5$ (B) $\left[\frac{8\pi g^2}{27\eta} (\rho - \sigma)^2 \right] r^5$ (C) $\left[\frac{8\pi g^2}{27\eta} (\rho - \sigma) \right] r^5$ (D) $\left[\frac{8\pi g^2}{27\eta^2} (\rho - \sigma) \right] r^5$

Space for rough use

Chemistry

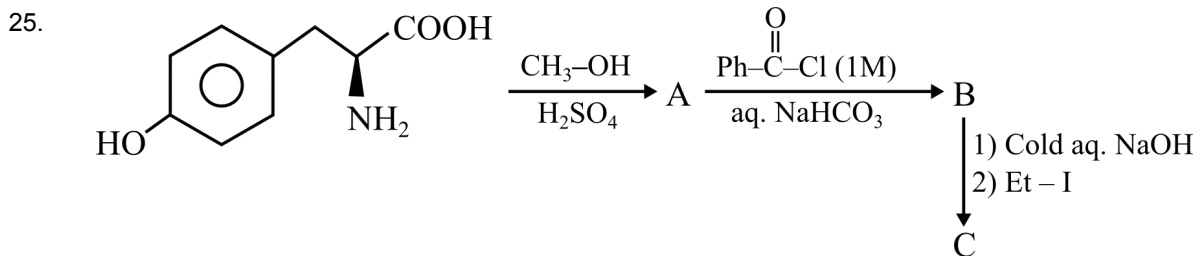
21.



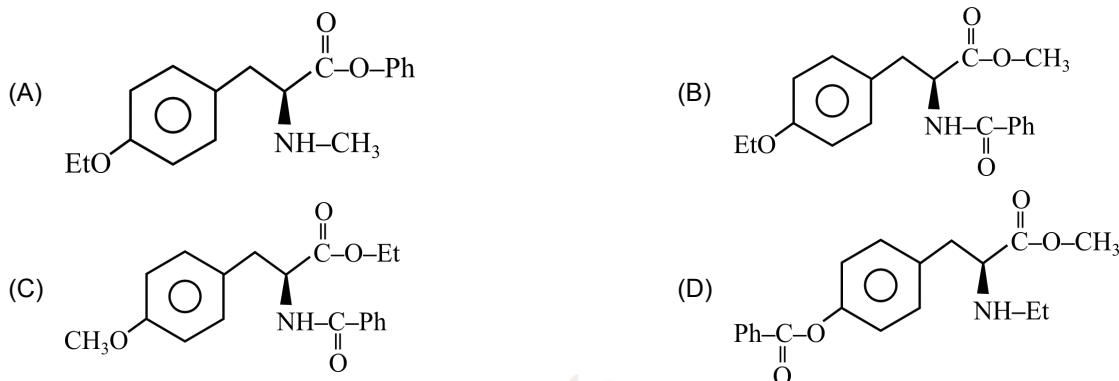
Number of chiral carbons present in compound C is

- (A) 2 (B) 1 (C) 0 (D) 3
22. Hydrolysis of XeF_4 and $CaNCN$ gives respectively:
- (A) XeO_3 and $CaCO_3$ (B) XeO_2 and $CaCN_2$
 (C) $XeOF_3$ and $CaCN_2$ (D) $XeOF_2$ and $CaCO_3$
23. A white solid which reacts with conc HCl to give a colourless gas that decolorises aqueous bromine solution. The solid is most likely to be:
- (A) Na_2CO_3 (B) CH_3COONa (C) $NaCl$ (D) $Na_2S_2O_3$
24. Identify A and B as per the following reactions:
- $$\begin{aligned} \text{Hypo} + I_2 &\longrightarrow A \\ \text{Hypo} + Cl_{2(aq)} &\longrightarrow B \end{aligned}$$
- (excess)
- (A) $A \equiv Na_2S_4O_6$, $B \equiv Na_2SO_4$ (B) $A \equiv Na_2S_4O_6$, $B \equiv NaHSO_4$
 (C) A and B both are $Na_2S_4O_6$ (D) A and B both are Na_2SO_4

Space for rough use



C is



26. Match the list - I (process) with List - II (ores) and find the correct option:

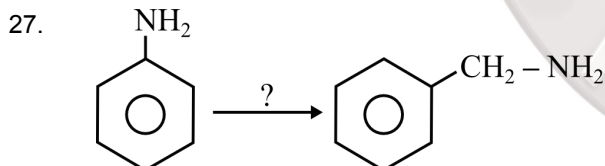
| | List - I | | List - II |
|----|------------------------|----|---------------|
| 1. | Smelting | P. | Copper glance |
| 2. | Self Reduction | Q. | Malachite |
| 3. | Electrolytic Reduction | R. | Haematite |
| 4. | Hydrometallurgy | S. | Bauxite |

(A) (1 - R), (2 - P), (3 - S), (4 - Q)

(B) (1 - Q), (2 - P), (3 - R), (4 - S)

(C) (1 - R), (2 - S), (3 - Q), (4 - P)

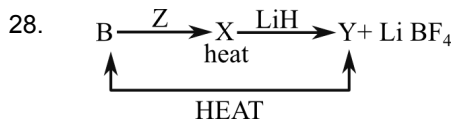
(D) (1 - R), (2 - S), (3 - P), (4 - Q)



Correct set of reagents for above conversion is/are ?

(A) (i) $CHCl_3, aq. KOH$ (ii) LAH (iii) H_2O/H^+ (B) (i) dil $HNO_2, 0^\circ C$ (ii) $CuCN/HCN$ (iii) LAH; H_2O (C) (i) dil $HNO_2, 0^\circ C$ (ii) $CH_3 - NH_2/$ Base(D) (i) $CH_3 - Cl, Py$ (ii) dil HNO_2 (iii) $H_2/Pd - C$

Space for rough use

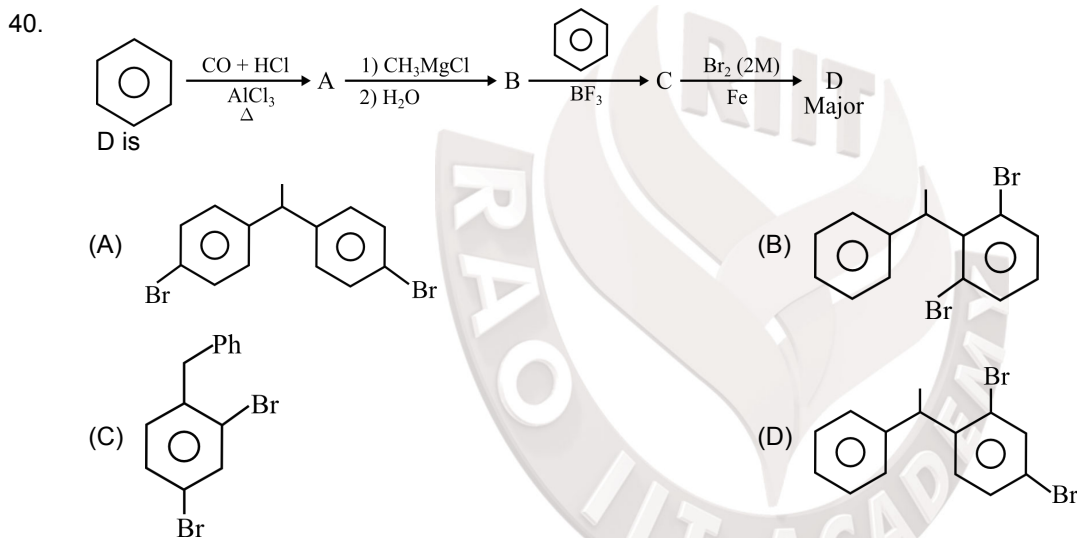


Which of the following statement is true for the above sequence of reactions?

- (A) Z is H_2 (B) X is B_2H_6
 (C) Z is F_2 & Y is B_2H_6 (D) Y is BF_3 & Z is H_2
29. 1 mol of N_2 and 4 mol of H_2 are allowed to react in a vessel and after reaction H_2O is added aqueous solution required 1 mole of HCl. Mole fraction of H_2 in the gaseous mixture after reaction is
 (A) $\frac{1}{2}$ (B) $\frac{5}{6}$ (C) $\frac{1}{3}$ (D) None of these
30. Mole fraction of water vapour in the water saturated air is 0.02, if total pressure is 1.2 atm, partial pressure of dry air is
 (A) 1.18 atm (B) 1.22 atm (C) 1.176 atm (D) 1.224 atm
31. Cumene $\xrightarrow[h\nu]{O_2} \xrightarrow[\Delta]{H^+} A + B$
 A and B can be distinguished by
 (i) Neutral $FeCl_3$ (ii) 2,4-DNP (iii) Br_2/H_2O
 (iv) aq $NaHCO_3$ (v) $I_2 / aq NaOH$
 (A) i, iii and v only (B) i, ii, iv and v only (C) i, ii, iii and v only (D) All of these
32. For the reaction $2NO + Br_2 \rightarrow 2NOBr$ the following mechanism has been given.
 $NO + Br_2 \xrightleftharpoons{\text{Fast}} NOBr_2$
 $NOBr_2 + NO \xrightarrow{\text{Slow}} 2NOBr$
 Hence, rate law is
 (A) $K[NO]^2[Br_2]$ (B) $K[NO][Br_2]$ (C) $K[NOBr_2][NO]$ (D) $K[NO][Br_2]^2$
33. Which of the following can show Geometrical isomerism?
 (I) Decalin (II) Mesitylene
 (III) Stilbene (IV) 1,4-dichlorocyclohexane
 (A) I and IV only (B) II and IV only (C) II, III and IV (D) I, III and IV
34. Depression of freezing point of 0.01 molal aq. CH_3COOH solution is $0.02046^\circ C$. 1 molal urea solution freezes at $-1.86^\circ C$. Assuming molality equal to molarity pH of CH_3COOH solution is
 (A) 2 (B) 3 (C) 3.2 (D) 4.2
35. $2SO_2 + O_2 \rightleftharpoons 2SO_3$ starting with 2 mol SO_2 and 1 mol O_2 in 1 L flask mixture required 0.4 mol MnO_4^- in acidic medium. Hence K_C is
 (A) 2 (B) 0.4 (C) 1.6 (D) 2.6

Space for rough use

36. A quantity of 0.5 mol of an ideal gas at 20°C expands isothermally against a constant pressure of 2.0 atm from 1L to 5L. Entropy change of surroundings?
- (A) 3.6 J K^{-1} (B) -2.8 J K^{-1} (C) -3.9 J K^{-1} (D) $+2.8 \text{ J K}^{-1}$
37. A solution is a mixture of 0.05 M NaCl and 0.05 M NaI. The concentration of iodide ion in the solution when AgCl just starts precipitating is equal to
($K_{sp} \text{ AgCl} = 10^{-10} \text{ M}^2$, $K_{sp} \text{ AgI} = 4 \times 10^{-16} \text{ M}^2$)
- (A) $4 \times 10^{-6} \text{ M}$ (B) $2 \times 10^{-8} \text{ M}$ (C) $2 \times 10^{-7} \text{ M}$ (D) $8 \times 10^{-5} \text{ M}$
38. $K_4[Fe(CN)_6]$ complex is used for the identification of which radicals?
- (A) Fe^{+2} , Fe^{+3} and Cu^{+2} ions. (B) Fe^{+3} , Cu^{+2} and Zn^{+2} ions.
(C) Fe^{+3} , Ni^{+2} and Zn^{+2} ions. (D) Fe^{+2} , Fe^{+3} and Ni^{+2} ions.
39. Amount of gas adsorbed per gram of absorbent increases with pressure, but after certain limit is reached, adsorption becomes constant. It is where
- (A) Multilayers are formed (B) Desorption takes place
(C) Temperature is increased (D) Absorption also starts



Mathematics

41. The positive value of x for which the fourth term in the expansion of $(5 + 3x)^{10}$ is the greatest, is
- (A) $x > 5$ (B) $2 < x < 5$ (C) $x = 7$ (D) $\frac{5}{8} < x < \frac{20}{21}$
42. The total number of dissimilar terms in the expansion of $(x_1 + x_2 + x_3)^n$ are 66, then the value of n is
- (A) 5 (B) 10 (C) 12 (D) 15

Space for rough use

43. If z_1, z_2, z_3 are three complex numbers such that $4z_1 - 7z_2 + 3z_3 = 0$, Then z_1, z_2, z_3 are.
 (A) Vertices of a scalene triangle (B) Vertices of a right triangle
 (C) Points on a circle (D) Collinear points
44. If $|z| = 1$ and $z \neq \pm 1$, then all the value of $\frac{z}{1 - z^2}$ lie on
 (A) ellipse (B) circle (C) the x - axis (D) the y - axis
45. The value of $\lim_{x \rightarrow 0} \left[\frac{k \sin x}{x} \right]$, where $[\cdot]$ denotes the G.I.F and $k = \min (y^2 - 4y + 11)$ for every $y \in R$, is.
 (A) 0 (B) 6 (C) 7 (D) does not exist
46. The equation of a circle drawn on the chord $2x + 3y = 13$ of the circle $x^2 + y^2 = 13$ as diameter is
 (A) $x^2 + y^2 + 4x + 6y + 13 = 0$ (B) $x^2 + y^2 - 4x + 6y + 13 = 0$
 (C) $x^2 + y^2 - 4x - 6y + 13 = 0$ (D) None of these
47. The number of different way in which 8 different books can be distributed among 3 students, if each student receives atleast 2 books is
 (A) 2640 (B) 2680 (C) 2480 (D) 2940
48. If $x^2 + 2x + 5 = 0$ and $ax^2 + bx + c = 0$ have a common root and $a, b, c \in N$, then the minimum value of $a + b + c$ is
 (A) 5 (B) 7 (C) 8 (D) 9
49. If t_r denotes r^{th} term of a H.P for which $t_m = n$ and $t_n = m$ then t_{m+n} is equal to
 (A) $\frac{1}{t_m} + \frac{1}{t_n}$ (B) $t_m + t_n$ (C) $\frac{t_m t_n}{t_m + t_n}$ (D) $\frac{n}{t_m} + \frac{m}{t_n}$
50. The number of solution of the equation $\cos(\pi\sqrt{x-4})\cos(\pi\sqrt{x}) = 1$ is.
 (A) 0 (B) 1 (C) 2 (D) More than 2
51. The equation $\sin\left(\frac{\pi x}{2\sqrt{3}}\right) = x^2 - 2\sqrt{3}x + 4$ has
 (A) no solution (B) only 1 solution (C) 2 solutions (D) more than 2 solutions

Space for rough use

52. In a ΔABC , the value of $\sin A \sin B \sin C$ is.
 (A) $\geq \frac{3\sqrt{3}}{8}$ (B) $\leq \frac{3\sqrt{3}}{8}$ (C) $\geq \frac{\sqrt{3}}{8}$ (D) $\leq \frac{\sqrt{3}}{8}$
53. If the normal to the curve $y = f(x)$ at $x = 0$ is given by the equation $3x - y + 3 = 0$, then the value of $\lim_{x \rightarrow 0} x^2 \{f(x^2) - 5f(4x^2) + 4f(7x^2)\}^{-1}$ is.
 (A) $-1/5$ (B) $-1/4$ (C) $-1/3$ (D) $-1/2$
54. The function $f(x) = \cos(\pi/x)$ is increasing in the interval.
 (A) $(2n - 1, 2n), n \in N$ (B) $(2n, 2n + 1), n \in N$
 (C) $\left(\frac{1}{2n+2}, \frac{1}{2n+1}\right), n \in N$ (D) $\left(\frac{1}{2n+1}, \frac{1}{2n}\right), n \in N$
55. If $f'(x) = |x| - \{x\}$, where $\{x\}$, denotes the fractional part x , then $f(x)$ is decreasing in.
 (A) $\left(-\frac{1}{2}, 0\right)$ (B) $\left(-\frac{1}{2}, 2\right)$ (C) $\left(-\frac{1}{2}, 2\right]$ (D) $\left(\frac{1}{2}, \infty\right)$
56. The longest distance of the point $(a, 0)$ from the curve $2x^2 + y^2 - 2x = 0$, is given by
 (A) $\sqrt{1 - 2a - a^2}$ (B) $\sqrt{1 + 2a + 2a^2}$ (C) $\sqrt{1 + 2a + a^2}$ (D) $\sqrt{1 - 2a + 2a^2}$
57. Area bounded by the curve $y = \frac{\ln x - c}{x}$, the x - axis and the vertical line through the maximum point of the curve is
 (A) c^2 sq unit (B) $c^{3/2}$ sq unit (C) $c + 5$ sq unit (D) independent of c
58. If PQ is the double ordinate of the hyperbola $\frac{x^2}{a^2} - \frac{y^2}{b^2} = 1$ such that OPQ is an equilateral triangle, O being the center of the hyperbola, then the eccentricity of the hyperbola satisfies.
 (A) $1 < e < \frac{2}{\sqrt{3}}$ (B) $e = \frac{\sqrt{3}}{2}$ (C) $e = \frac{2}{\sqrt{3}}$ (D) $e > \frac{2}{\sqrt{3}}$
59. If $[.]$ stand for greatest integer function, then number of integers where $f(x) = [x^3] - [x]^3$ is continuous is / are
 (A) 1 (B) 2 (C) 3 (D) 4

Space for rough use

60. Which of the following is true for $x > 1$?
- (A) $1 + x \ln x < x < 1 + \ln x$ (B) $1 + \ln x < x < 1 + x \ln x$
 (C) $x < 1 + x \ln x < 1 + \ln x$ (D) $1 + \ln x < 1 + x \ln x < x$

Biology

61. How many NAD molecules get reduced in complete oxidation of one glucose molecule ?
 (A) 2 (B) 5 (C) 10 (D) 12
62. How many interlocking rings are present in a steroid molecule ?
 (A) 1 (B) 2 (C) 3 (D) 4
63. Multicostate convergent reticulate venation is seen in ____ leaf.
 (A) Zizyphus (B) Bamboo (C) Castor (D) Mango
64. Select the correct statement from the following.
 I. Endosperm is generally $(3n)$ in Angiosperms.
 II. All angiosperms show indirect pollination and siphonogamy.
 III. Embryo sac is always monosporic and endosporic.
 IV. Angiosperms are characterised by double fertilisation.
 (A) I, II, III (B) II, III, IV (C) I, II, IV (D) I, II, III, IV
65. In plant cell the diffusion pressure deficit is zero when it is ____.
 (A) Plasmolysed (B) Turgid (C) Flaccid (D) Incipient
66. Appearance of recessive - trait in F_2 generation prove which law of mendel ?
 (A) Law of dominance (B) Law of segregation
 (C) Law of independent assortment (D) Both (B) & (C)
67. During seed germination, its stored food is mobilised by ____.
 (A) Ethylene (B) Cytokinins (C) ABA (D) Gibberellins.
68. Which of following is not used for *ex situ* plant conservation ?
 (A) Field gene bank (B) Seed bank (C) Shifting cultivation (D) Botanical garden
69. DNA fragments generated by the restriction endonucleases in a chemical reaction can be separated by ____.
 (A) Centrifugation (B) Electrophoresis
 (C) Polymerase chain reaction (D) Blotting
70. Advantage of cleistogamy is _____.
 (A) Higher genetic variability (B) More vigorous offspring
 (C) No dependence on pollinators (D) Vivipary

Space for rough use

71. Cell body of the neuron is called
(A) Nissl's granules (B) Neurolemma (C) Oligodendrocyte (D) Perikaryon
72. Excretory organs of cockroach are
(A) Flame cells (B) Green glands
(C) Malpighian corpuscles (D) Malpighian tubules
73. HCl present in gastric juice changes
(A) Trypsinogen to trypsin (B) Pepsinogen to pepsin
(C) Chymotrypsinogen to chymotrypsin (D) All of these
74. The greatest quantity of air that can be expired after a maximum inspiratory effort is its
(A) Residual volume (B) Vital capacity
(C) Inspiratory reserve volume (D) Tidal volume
75. Trabeculae carnae are
(A) Chord like structures attaching atrioventricular valves to walls of ventricles to prevent opening back of valves
(B) Irregular muscular ridges into which the inner surface of the ventricles is thrown into.
(C) Connection between pulmonary artery and aorta
(D) None of the above
76. Filtration slits are present on
(A) Blood capillaries of glomerulus
(B) Podocytes' pedicels
(C) Epithelial cells of parietal layer of Bowman's capsule
(D) None of the above
77. Myosin filaments are thick and are made up of small units called meromyosin. Each meromyosin has a globular head with a short arm called :
(A) Heavy meromyosin (B) Light meromyosin
(C) Both (A) & (B) (D) None of these

Space for rough use

78. Find out the correct match between the following table:

| | Column - I | Column - II | Column - III |
|-----|---------------|--------------|----------------------------|
| (A) | Corpus luteum | Progesterone | Maintenance of endometrium |

| | Column - I | Column - II | Column - III |
|-----|--------------|-------------|-------------------------|
| (B) | Pineal gland | Vasopressin | Intracellular transport |

| | Column - I | Column - II | Column - III |
|-----|---------------|-------------|--------------------------------|
| (C) | Pars distalis | Coherin | Induces contraction of stomach |

| | Column - I | Column - II | Column - III |
|-----|--------------|----------------|--|
| (D) | Pars nervosa | Growth hormone | Retards growth - mentally and physically |

79. Receptors which are present in the visceral organs and their function is detection of hunger, thirst, pain, pH, temperature, osmotic changes, etc. are called

- (A) Proprioceptors (B) Photoreceptors (C) Enteroreceptors (D) Baroreceptors

80. Which of the following statement is true

- (A) Frohlich dwarfs are mentally abnormal (B) Lorain dwarfs are mentally abnormal.
 (C) Thymosin is a steroid hormone. (D) Cortisol causes lipogenesis & Glycogenolysis.

Space for rough use



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Rao Intelligence Search Exam 2019

Std. XII / Sample Paper

ANSWERKEY

- | | | | |
|-------|-------|-------|-------|
| 1. D | 2. B | 3. C | 4. D |
| 5. C | 6. C | 7. A | 8. C |
| 9. A | 10. A | 11. B | 12. D |
| 13. C | 14. D | 15. A | 16. B |
| 17. A | 18. B | 19. A | 20. B |
| 21. A | 22. A | 23. D | 24. B |
| 25. B | 26. A | 27. B | 28. C |
| 29. B | 30. C | 31. C | 32. A |
| 33. D | 34. B | 35. A | 36. B |
| 37. C | 38. B | 39. A | 40. A |
| 41. D | 42. B | 43. D | 44. D |
| 45. B | 46. D | 47. D | 48. C |
| 49. C | 50. A | 51. B | 52. B |
| 53. C | 54. D | 55. A | 56. D |
| 57. D | 58. D | 59. A | 60. B |
| 61. C | 62. D | 63. A | 64. C |
| 65. B | 66. B | 67. D | 68. C |
| 69. B | 70. C | 71. D | 72. D |
| 73. B | 74. B | 75. B | 76. B |
| 77. A | 78. A | 79. C | 80. A |