



DR ACADEMY

DO RIGHT FOR GENUINE EDUCATION

#42, 100FT ROAD,
KAMMAGONDANAHALLI,
JALAHALLI WEST,
BENGALURU - 560 015
Phone : 9008030463
9008030896 / 9513330437

HOSKOTE - MALUR ROAD,
ISRI CROSS, KATTIGENAHALLI,
JADIGENAHALLI HOBLI,
BENGALURU - 562114
Phone : 9741332998
7760575487/ 9535527713

PLOT NO.87, VAHINI NIVAS
MATRUSRI NAGAR COLONY,
HAFEEZ PET, MIYAPUR,
HYDERABAD - 500049
Phone : 8977548407
8977548408 / 8977548409

NEET (UG) – 2023

VERSION : H2

DATE :- 07-05-2023

TIME : 02.00 PM TO 05.20 PM



(Approved by Board of Pre-University Education, Karnataka.)

K.B.C. Trust ®

ASHOK
PU COLLEGE



DR ACADEMY
DO RIGHT FOR GENUINE EDUCATION



CONGRATULATIONS



II PU SCIENCE ANNUAL EXAM - 2023 RESULT



589 MARKS
MANISH P



586 MARKS
RIYAZ



583 MARKS
SUHAS B R



582 MARKS
MOHAMMED SULEMAN



582 MARKS
MADIHA NOORIN



582 MARKS
ANUSHREE M



581 MARKS
M SAI PRAMATHI



581 MARKS
PRAJWAL R S



578 MARKS
N HIMA BINDU



577 MARKS
SANIYA MUDHOL



577 MARKS
SUHANI FIRDOUS



577 MARKS
LEELANANDAN



576 MARKS
SHIVANAND N Y



576 MARKS
NITHYA REDDY



576 MARKS
N VARSHINI REDDY



576 MARKS
SANJANA A C



575 MARKS
S RAHUL



575 MARKS
THRISHA M P

NO. OF STUDENTS

248

FIRST CLASS

69

DISTINCTION

178

SECOND CLASS

1

100% PASS

9008030463
9008030896
9513330437



PHYSICS - SECTION - A

1. The ratio of radius of gyration of a solid sphere of mass M and radius R about its own axis to the radius of gyration of the thin hollow sphere of same mass and radius about its axis
 1) 2:5 2) 5:2 3) 3:5 4) 5:3

Ans. No Answer

Sol.
$$\frac{\left(\frac{K^2}{R^2}\right)_{\text{solid}}}{\left(\frac{K^2}{R^2}\right)_{\text{hollow}}} = \frac{\frac{2}{5}}{\frac{2}{3}}$$

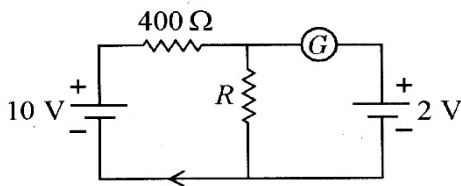
$$\frac{K_{\text{solid}}}{K_{\text{hollow}}} = \sqrt{\frac{3}{5}}$$

2. A 12V, 60W lamp is connected to the secondary of a step down transformer, whose primary is connected to ac mains of 220V. Assuming the transformer to be ideal, what is the current in the primary winding?
 1) 3.7A 2) 0.37A 3) 0.27A 4) 2.7A

Ans. 3

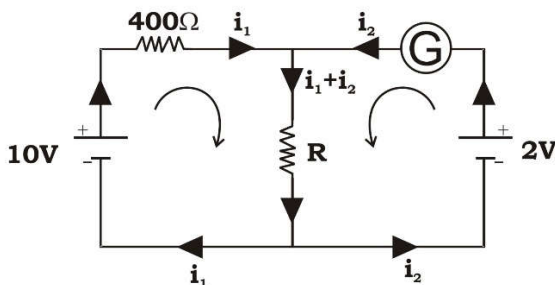
Sol. For an ideal transformer
 $V_s I_s = V_p I_p$
 $P_s = V_p I_p$
 Where $P_s = 60W$
 $60 = 220 \times I_p$
 $I_p = 0.27A$

3. If the galvanometer G does not show an deflection in the circuit shown, the value of R is given by



- 1) 100Ω 2) 400Ω
 3) 200Ω 4) 50Ω

Ans. 1



Sol.

Applying KVL

$$400i_1 + (i_1 + i_2)R = 10$$

$$i_2 = 0$$

$$i_1 = \frac{8}{400}$$

$$(i_1 + i_2)R = 2$$

$$i_1 R = 2$$

$$\frac{8}{400} \times R = 2$$

$$R = 100\Omega$$

4. A full wave rectifier circuit consists of two p-n junction diodes, a centre-tapped transformer, capacitor and a load resistance. Which of the components remove the ac ripple from the rectified output?
 1) Capacitor
 2) Load resistance
 3) A centre-tapped transformer
 4) p-n junction diodes

Ans. 1

Sol. Conceptual

5. The work functions of Caesium (Cs), Potassium (K) and Sodium (Na) are 2.14eV, 2.30 eV and 2.75 eV respectively. If incident electromagnetic radiation has an incident energy of 2.20eV, which of these photosensitive surface may emit photoelectrons?
 1) K only 2) Na only
 3) Cs only 4) Both Na and K

Ans. 3

Sol. Cs is having least work function so it emit photoelectrons

6. The ratio of frequencies of fundamental harmonic produced by an open pipe to that of closed pipe having the same length is
 1) 1:3 2) 3:1 3) 1:2 4) 2:1

Ans. 4

Sol.
$$\frac{f_o}{f_c} = \frac{V}{2\ell} \frac{4\ell}{V} = \frac{2}{1}$$

7. The amount of energy required to form a soap bubble of radius 2 cm from a soap solution is nearly: (Surface tension of soap solution = 0.03 Nm⁻¹)

- 1) 3.01×10^{-4} J 2) 50.1×10^{-4} J
 3) 30.16×10^{-4} J 4) 5.06×10^{-4} J

Ans. 1

Sol. $\Delta E = T \cdot 8\pi R^2$
 $= 0.03 \times 8 \times \frac{22}{7} \times 4 \times 10^{-4}$
 $= 3.01 \times 10^{-4}$ J

8. Let a wire be suspended from the ceiling (rigid support) and stretched by a weight W attached at its free end. The longitudinal stress at any point of cross-sectional area A of the wire is

- 1) $W/2A$ 2) Zero 3) $2W/A$ 4) W/A

Ans. 4

Sol. Stress = $\frac{W}{A}$

9. A vehicle travels half the distance with speed 9 and the remaining distance with speed 29. Its average speed is

- 1) $\frac{49}{3}$ 2) $\frac{39}{4}$ 3) $\frac{9}{3}$ 4) $\frac{29}{3}$

Ans. 1

Sol. $V_{avg} = \frac{2V_1V_2}{V_1 + V_2}$

10. For Young's double slit experiment, two statements are given below:

Statement I: If screen is moved away from the plane of slits, angular separation of the fringes remains constant.

Statement II: If the monochromatic source is replaced by another monochromatic source of larger wavelength, the angular separation of fringes decreases.

In the light of the above statements, choose the correct answer from the options given below.

- 1) Statement I is true, but Statement II is false
 2) Statement I is false, but Statement II is true
 3) Both Statement I and Statement II are true
 4) Both Statement I and Statement II are false

Ans. 1

Sol. $\theta = \frac{\lambda}{d}$

11. Light travels a distance x in time t_1 in air and $10x$ in time t_2 in another denser medium. What is the critical angle for this medium

- 1) $\sin^{-1}\left(\frac{t_1}{10t_2}\right)$ 2) $\sin^{-1}\left(\frac{10t_1}{t_2}\right)$
 3) $\sin^{-1}\left(\frac{t_2}{t_1}\right)$ 4) $\sin^{-1}\left(\frac{10t_2}{t_1}\right)$

Ans. 2

Sol. $V_R = \frac{x}{t_1}$
 $V_D = \frac{10x}{t_2}$
 $C = \sin^{-1}\left(\frac{\mu_R}{\mu_D}\right)$
 $= \sin^{-1}\left(\frac{V_D}{V_R}\right)$

12. An ac source is connected to a capacitor C. Due to decrease in its operating frequency.

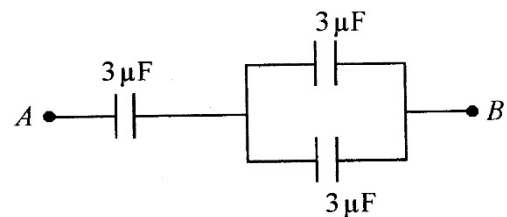
- 1) Displacement current decreases
 2) Capacitive reactance remains constant
 3) Capacitive reactance decreases
 4) Displacement current increases

Ans. 1

Sol. $X_C = \frac{1}{\omega C}$

As f decreases X_C increases
 So current decreases

13. The equivalent capacitance of the system shown in the following circuit is



- 1) $6\mu F$ 2) $9\mu F$
 3) $2\mu F$ 4) $3\mu F$

Ans. 3

Sol.

$C_{eff} = \frac{C_1 C_2}{C_1 + C_2} = \frac{3 \times 6}{3 + 6} = 2\mu F$

14. In a plane electromagnetic wave travelling in free space, the electric field component oscillates sinusoidally at a frequency of $2.0 \times 10^{10} \text{ Hz}$ and amplitude 48 Vm^{-1} . Then the amplitude of oscillating magnetic field is. (Speed of light in free space = $3 \times 10^8 \text{ ms}^{-1}$)

- 1) $1.6 \times 10^{-7} \text{ T}$ 2) $1.6 \times 10^{-6} \text{ T}$
 3) $1.6 \times 10^{-9} \text{ T}$ 4) $1.6 \times 10^{-8} \text{ T}$

Ans. 1

Sol. $C = \frac{E_0}{B_0}$

$B_0 = \frac{E_0}{C} = 16 \times 10^{-8} = 1.6 \times 10^{-7} \text{ T}$

15. In hydrogen spectrum, the shortest wavelength in the Balmer series is λ . The shortest wavelength in the Bracket series is

- 1) 9λ 2) 16λ
 3) 2λ 4) 4λ

Ans. 4

Sol. $\frac{1}{\lambda} = R \left[\frac{1}{2^{12}} - \frac{1}{\infty} \right] = \frac{R}{4}$

$\frac{1}{\lambda'} = R \left[\frac{1}{4^2} - \frac{1}{\infty} \right] = \frac{R}{16}$

$\frac{\lambda'}{\lambda} = \frac{16}{4} = 4$

$\lambda' = 4\lambda$

16. A metal wire has mass $(0.4 \pm 0.002) \text{ g}$, radius $(0.3 \pm 0.001) \text{ mm}$ and length $(5 \pm 0.02) \text{ cm}$. The maximum possible percentage error in the measurement of density will nearly be

- 1) 1.6% 2) 1.4%
 3) 1.2% 4) 1.3%

Ans. 1

Sol. $\frac{\Delta d}{d} \times 100 = \left(\frac{\Delta m}{m} + \frac{\Delta \ell}{\ell} + 2 \frac{\Delta r}{r} \right) \times 100$

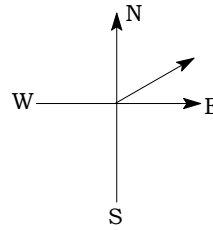
$\approx 1.6\%$

17. A football player is moving southward and suddenly turns eastward with the same speed to avoid an opponent. The force that acts on the player while turning is

- 1) Along north-east
 2) Along south-west
 3) Along eastward
 4) Along northward

Ans. 1

Sol.



$\vec{V}_i = V(-\hat{j})$

$\vec{V}_f = v\hat{i}$

$\vec{F} = m \frac{\Delta \vec{V}}{t} = m \left(\frac{V\hat{i} + V\hat{j}}{t} \right) = \frac{mV}{t} (\hat{i} + \hat{j})$

18. The temperature of a gas is -50°C . To what temperature the gas should be heated so that the rms speed is increased by 3 times?

- 1) 3097K 2) 223K
 3) 669°C 4) 3295°C

Ans. 4

Sol. $\frac{V_1}{V_2} = \sqrt{\frac{T_1}{T_2}} \Rightarrow \left(\frac{V}{4V} \right)^2 = \frac{223}{T_2}$

$T_2 = 3295^\circ\text{C}$

19. Resistance of a carbon resistor determined from colour codes is $(22000 \pm 5\%) \Omega$. The colour of third band must be

- 1) Orange 2) Yellow
 3) Red 4) Green

Ans. 1

Sol. $R = 22000 \pm 5\%$
 $= 22 \times 10^3 \pm 5\%$

Red Red **orange** Gold

20. A bullet is fired from a gun at the speed of 280 ms^{-1} in the direction 30° above the horizontal. The maximum height attained by the bullet is

$(g = 9.8 \text{ ms}^{-2}, \sin 30^\circ = 0.5)$

- 1) 1000 m 2) 3000 m
 3) 2800 m 4) 2000 m

Ans. 1

Sol. $H_{\text{max}} = \frac{u^2 \sin^2 \theta}{2g}$

$= \frac{(280)^2 \sin^2 30}{2 \times 9.8} = 1000 \text{ m}$

21. A Carnot engine has an efficiency of 50% when its source is at a temperature 327°C. The temperature of the sink is
- 1) 100°C
 - 2) 200°C
 - 3) 27°C
 - 4) 15°C

Ans. 3

Sol. $\eta = 1 - \frac{T_2}{T_1}$

$$\frac{1}{2} = 1 - \frac{T_2}{600}$$

$$T_2 = 300\text{K}$$

$$= 27^\circ\text{C}$$

22. In a series LCR circuit, the inductance L is 10 mH, capacitance C is 1μF and resistance R is 100Ω. The frequency at which resonance occurs is
- 1) 1.59 rad/s
 - 2) 1.59 kHz
 - 3) 15.9 rad/s
 - 4) 15.9 kHz

Ans. 2

Sol. $f = \frac{1}{2\pi\sqrt{LC}}$

$$f = \frac{1}{2 \times 3.14 \sqrt{10 \times 10^{-3} \times 10^{-6}}}$$

$$f = 1.59\text{kHz}$$

23. If $\oint \vec{E} \cdot d\vec{S} = 0$ over a surface, then
- 1) All the charges must necessarily be inside the surface
 - 2) The electric field inside the surface is necessarily uniform
 - 3) The number of flux lines entering the surface must be equal to the number of flux lines leaving it
 - 4) The magnitude of electric field on the surface is constant.

Ans. 3

Sol. Conceptual

24. Two bodies of mass m and 9m are placed at a distance R. The gravitational potential on the line joining the bodies where the gravitational field equals zero, will be (G=gravitational constant)

- 1) $-\frac{16Gm}{R}$
- 2) $-\frac{20Gm}{R}$
- 3) $-\frac{8Gm}{R}$
- 4) $-\frac{12Gm}{R}$

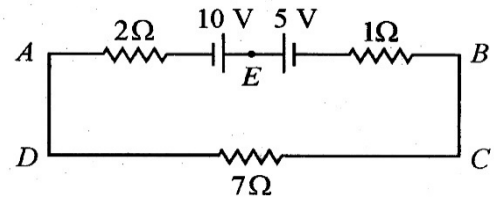
Ans. 1

Sol. $r = \frac{x}{\sqrt{\frac{m_2}{m_1} + 1}}$

$$x = \frac{R}{\sqrt{\frac{9}{1} + 1}}$$

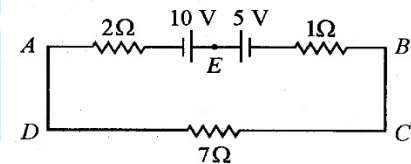
$$V = \frac{-G9m}{3R/4} - \frac{Gm}{R/4} = -\frac{16Gm}{R}$$

25. The magnitude and direction of the current in the following circuit is



- 1) $\frac{5}{9}$ A from A to B through E
- 2) 1.5A from B to A through E
- 3) 0.2A from B to A through E
- 4) 0.5 A from A to B through E

Ans. 4



Sol.

$$10 - 5 - i(1) - 7i - 2i = 0$$

$$i = 0.5\text{amp}$$

i flows from A to B through E

26. The minimum wavelength of X-rays produced by an electron accelerated through a potential difference of V volts is proportional to:

- 1) $\frac{1}{\sqrt{V}}$
- 2) V^2
- 3) \sqrt{V}
- 4) $\frac{1}{V}$

Ans. 4

Sol. $E = \frac{hc}{\lambda} \Rightarrow \lambda = \frac{hc}{eV}$

$$\lambda \propto \frac{1}{V}$$

27. The angular acceleration of a body, moving along the circumference of a circle, is:
- 1) along the tangent to its position
 - 2) along the axis of rotation
 - 3) along the radius, away from centre
 - 4) along the radius towards the centre

Ans. 2

Sol. By using Right hand thumb rule along the axis of rotation.

28. The magnetic energy stored in an inductor of inductance $4\ \mu\text{H}$ carrying a current of 2A is:

- 1) $8\ \text{mJ}$
- 2) $8\ \mu\text{J}$
- 3) $4\ \mu\text{J}$
- 4) $4\ \text{mJ}$

Ans. 2

Sol. $U = \frac{1}{2} Li^2$

29. The half life of a radioactive substance is 20 minutes. In how much time, the activity of

substance drops to $\left(\frac{1}{16}\right)^{\text{th}}$ of its initial value?

- 1) 60 minutes
- 2) 80 minutes
- 3) 20 minutes
- 4) 40 minutes

Ans. 2

Sol. $\frac{A}{A_0} = \left(\frac{1}{2}\right)^n$

$t = nT_{1/2}$

30. The potential energy of a long spring when The $2\ \text{cm}$ is U . If the spring is stretched by $8\ \text{cm}$, potential energy stored in it will be:

- 1) $8U$
- 2) $16U$
- 3) $2U$
- 4) $4U$

Ans. 2

Sol. $U = \frac{1}{2} kx^2 \Rightarrow U \propto x^2$

31. The venturi-meter works on:

- 1) The principle of parallel axes
- 2) The principle of perpendicular axes
- 3) Huygen's principle
- 4) Bernoulli's principle

Ans. 4

Sol. Conceptual

32. The net magnetic flux through any closed surface is:

- 1) Infinity
- 2) Negative
- 3) Zero
- 4) Positive

Ans. 3

Sol. Conceptual

33. Given below are two statements:

Statement I: Photovoltaic devices can convert optical radiation into electricity.

Statement II: Zener diode is designed to operate under reverse bias in breakdown region.

In the light of the above statements, choose the most appropriate answer from the options given below:

- 1) Statement I is correct but Statement II is incorrect.
- 2) Statement I is incorrect but Statement II is correct.
- 3) Both Statement I and Statement II are correct.
- 4) Both Statement I and Statement II are incorrect.

Ans. 3

Sol. Conceptual

34. The errors in the measurement which arise due to unpredictable fluctuations in temperature and voltage supply are:

- 1) Least count errors
- 2) Random errors
- 3) Instrumental errors
- 4) Personal errors

Ans. 2

Sol. Conceptual

35. An electric dipole is placed at an angle of 30° with an electric field of intensity $2 \times 10^5 \text{NC}^{-1}$. It experiences a torque equal to 4Nm . Calculate the magnitude of charge on the dipole, if the dipole length is $2\ \text{cm}$.

- 1) 4mC
- 2) 2mC
- 3) 8mC
- 4) 6mC

Ans. 2

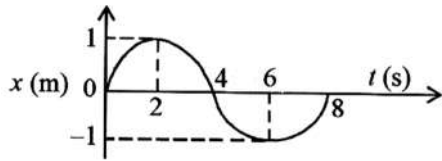
Sol. $\tau = PE \sin \theta$

$4 = q \times 2 \times 10^{-2} \times 2 \times 10^5 \times \frac{1}{2}$

$q = 2 \times 10^{-3} = 2\text{mC}$

PHYSICS - SECTION - B

- 36.** The $x - t$ graph of a particle performing simple harmonic motion is shown in the figure. The acceleration of the particle at $t = 2$ s is:



- 1) $\frac{\pi^2}{16} \text{ m s}^{-2}$ 2) $-\frac{\pi^2}{16} \text{ m s}^{-2}$
3) $\frac{\pi^2}{8} \text{ m s}^{-2}$ 4) $-\frac{\pi^2}{8} \text{ m s}^{-2}$

Ans. 2

Sol. $a = -\omega^2 \cdot A$
 $= -\frac{4\pi^2}{T^2} A \Rightarrow -\frac{4\pi^2}{8^2}$

- 37.** A horizontal bridge is built across a river. A student standing on the bridge throws a small ball vertically upwards with a velocity 4 m s^{-1} . The ball strikes the water surface after 4 s. The height of bridge above water surface is (Take $g = 10 \text{ m s}^{-2}$):

- 1) 64 m 2) 68 m 3) 56 m 4) 60 m

Ans. 1

Sol. $h = \frac{1}{2}gt^2 - ut$

- 38.** A wire carrying a current I along the positive x -axis has length L . It is kept in a magnetic field $\vec{B} = (2\hat{i} + 3\hat{j} - 4\hat{k})$ T. The magnitude of the magnetic force acting on the wire is:

- 1) $5IL$ 2) $\sqrt{3}IL$ 3) $3IL$ 4) $\sqrt{5}IL$

Ans. 1

Sol. $\vec{F} = i(\vec{\ell} \times \vec{B})$

- 39.** The resistance of platinum wire at 0°C is 2Ω and 6.8Ω at 80°C . The temperature coefficient of resistance of the wire is

- 1) $3 \times 10^{-2} \text{ }^\circ\text{C}^{-1}$ 2) $3 \times 10^{-1} \text{ }^\circ\text{C}^{-1}$
3) $3 \times 10^{-4} \text{ }^\circ\text{C}^{-1}$ 4) $3 \times 10^{-3} \text{ }^\circ\text{C}^{-1}$

Ans. 1

Sol. $\alpha = \frac{R_t - R_0}{R_0 t}$

- 40.** The radius of inner most orbit of hydrogen atom is $5.3 \times 10^{-11} \text{ m}$. What is the radius of third allowed orbit of hydrogen atom?
1) 1.59\AA 2) 4.77\AA 3) 0.53\AA 4) 1.06\AA

Ans. 2

Sol. $R = n^2 R_0$

- 41.** 10 resistors, each of resistance R are connected in series to a battery of emf E and negligible internal resistance. Then those are connected in parallel to the same battery, the current is increased n times. The value of n is:

- 1) 1 2) 1000 3) 10 4) 100

Ans. 4

Sol. $i_1 = \frac{E}{10R}$

$i_2 = \frac{E}{R/10} = 10 \left(\frac{E}{R} \right)$

$\frac{i_2}{i_1} = 100$

- 42.** A satellite is orbiting just above the surface of the earth with period T . If d is the density of the earth and G is the universal constant of gravitation, the quantity $\frac{3\pi}{Gd}$ represents:

- 1) T^3 2) \sqrt{T} 3) T 4) T^2

Ans. 4

Sol. $T = \frac{2\pi R}{\sqrt{G \frac{4}{3} \pi R^2 d}}$

$T^2 = \frac{4\pi^2 R^2}{G \frac{4}{3} \pi R^2 d}$

$T^2 \propto \frac{3\pi}{Gd}$

- 43.** Two thin lenses are of same focal lengths (f), but one is convex and the other one is concave. When they are placed in contact with each other, the equivalent focal length of the combination will be:

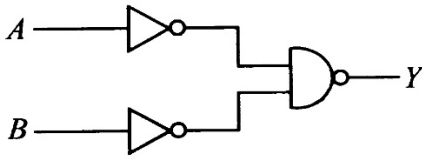
- 1) $f/2$ 2) Infinite 3) Zero 4) $f/4$

Ans. 2

Sol. $\frac{1}{F} = \frac{1}{f} + \frac{1}{-f} = 0$

$F = \frac{1}{0} = \infty$

44. For the following logic circuit, the truth table is:



| | | | | | |
|------|-----|-----|------|-----|-----|
| A | B | Y | A | B | Y |
| 1) 0 | 0 | 1 | 2) 0 | 0 | 0 |
| 0 | 1 | 0 | 0 | 1 | 0 |
| 1 | 0 | 1 | 1 | 0 | 0 |
| 1 | 1 | 0 | 1 | 1 | 1 |
| A | B | Y | A | B | Y |
| 3) 0 | 0 | 1 | 4) 0 | 0 | 0 |
| 0 | 1 | 1 | 0 | 1 | 1 |
| 1 | 0 | 1 | 1 | 0 | 1 |
| 1 | 1 | 0 | 1 | 1 | 1 |

Ans. 4

Sol. $\overline{\overline{A}} \cdot \overline{\overline{B}} = \overline{\overline{A + B}} = A + B = \text{OR gate}$

| | | |
|-----|-----|-----|
| A | B | Y |
| 0 | 0 | 0 |
| 0 | 1 | 1 |
| 1 | 0 | 1 |
| 1 | 1 | 1 |

45. A bullet from a gun is fired on a rectangular wooden block with velocity u . When bullet travels 24 cm through the block along its length horizontally, velocity of bullet becomes $\frac{u}{3}$. Then it further penetrates into the block in the same direction before coming to rest exactly at the other end of the block. The total length of the block is:

- 1) 28 cm 2) 30 cm
3) 27 cm 4) 24 cm

Ans. 3

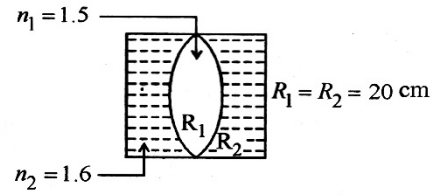
Sol. $V^2 - U^2 = 2as$

$$\frac{\left(\frac{U}{3}\right)^2 - U^2}{0 - \left(\frac{U}{3}\right)^2} = \frac{24}{x}$$

$$x = 3\text{cm}$$

$$\text{Total length} = 24 + 3 = 27\text{cm}$$

46. In the figure shown here, what is the equivalent focal length of the combination of lenses (Assume that all layers are thin)?



- 1) -100 cm 2) -50 cm
3) -40 cm 4) -40 cm

Ans. 1

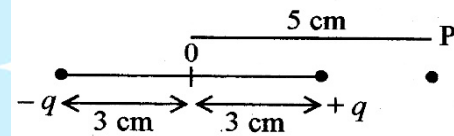
Sol. $\frac{1}{f} = \frac{1}{f_1} + \frac{1}{f_2} + \frac{1}{f_3}$

$$= \frac{-(1.6-1)}{20} + \frac{2(1.5-1)}{20} - \frac{(1.6-1)}{20}$$

$$= -\frac{1}{100}$$

$$f = -100\text{cm}$$

47. An electric dipole is placed as shown in the figure.



The electric potential (in 10^2 V) at point P due to the dipole is ($\epsilon_0 =$ permittivity of free space and $\frac{1}{4\pi\epsilon_0} = K$):

- 1) $\left(\frac{8}{5}\right)qK$ 2) $\left(\frac{8}{3}\right)qK$
3) $\left(\frac{3}{8}\right)qK$ 4) $\left(\frac{5}{8}\right)qK$

Ans. 3

Sol. $V = K \frac{q}{2 \times 10^{-2}} - \frac{Kq}{8 \times 10^{-2}}$

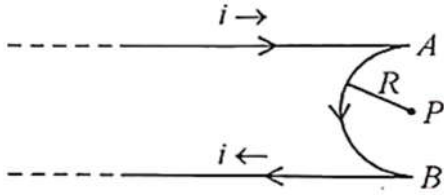
$$= Kq \times 100 \left[\frac{1}{2} - \frac{1}{8} \right]$$

$$= Kq \cdot 100 \times \frac{3}{8}$$

$$V = \frac{3}{8} Kq (100) V$$

$$= \frac{3}{8} Kq$$

48. A very long conducting wire is bent in a semi-circular shape from A to B as shown in figure. The magnetic field at point P for steady current configuration is given by:



- 1) $\frac{\mu_0 i}{4R} \left[1 - \frac{2}{\pi} \right]$ pointed away from page
- 2) $\frac{\mu_0 i}{4R} \left[1 - \frac{2}{\pi} \right]$ pointed into the page
- 3) $\frac{\mu_0 i}{4R}$ pointed into the page
- 4) $\frac{\mu_0 i}{4R}$ pointed away from the page

Ans. 1

Sol. $-\frac{\mu_0 i}{4\pi R} - \frac{\mu_0 i}{4\pi R} + \frac{\mu_0 i}{4R}$
 $= \frac{\mu_0 i}{4R} \left[1 - \frac{2}{\pi} \right]$ pointed away from page

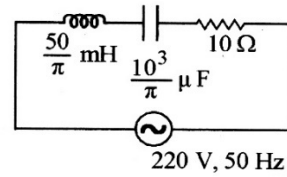
49. Calculate the maximum acceleration of a moving car so that a body lying on the floor of the car remains stationary. The coefficient of static friction between the body and the floor is 0.15 ($g = 10 \text{ m s}^{-2}$).

- 1) 1.5 m s^{-2}
- 2) 50 m s^{-2}
- 3) 1.2 m s^{-2}
- 4) 150 m s^{-2}

Ans. 1

Sol. $a_{\text{max}} = \mu g = 0.15 \times 10 = 1.5 \text{ m/sec}^2$

50. The net impedance of circuit (as shown in figure) will be:



- 1) $5\sqrt{5} \Omega$
- 2) 25Ω
- 3) $10\sqrt{2} \Omega$
- 4) 15Ω

Ans. 1

Sol. $X_L = 2\pi fL = 5 \Omega, X_C = \frac{1}{2\pi fC} = 10 \Omega$

$Z = \sqrt{R^2 + (X_C - X_L)^2} = \sqrt{10^2 + 5^2} = 5\sqrt{5} \Omega$

DR ACADEMY

DO RIGHT FOR GENUINE EDUCATION
A Premier Institute for NEET Coaching

BENGALURU
HYDERABAD

HEARTY CONGRATULATIONS

NEET 2022 TOPPERS

SACHI KALLOLI
677
MARKS
APPNO. 220410380527

CHATHUSH GOWDA D S
675
MARKS
APPNO. 220410380030

CHANDANA D
672
MARKS
APPNO. 220410300457

SOWRAV B
672
MARKS
APPNO. 220410767020

SIDDHARTH A S
662
MARKS
APPNO. 220411186763

OUTSTANDING PERFORMANCE 600 MARKS AND ABOVE 62 REGISTRATION OPEN

| | | | | | | | | |
|--|--|--|--|--|--|--|--|--|
| 650 <small>MARKS</small> <small>APPNO. 220410311091</small> | 650 <small>MARKS</small> <small>APPNO. 220410349557</small> | 647 <small>MARKS</small> <small>APPNO. 220410355151</small> | 646 <small>MARKS</small> <small>APPNO. 220410355151</small> | 646 <small>MARKS</small> <small>APPNO. 220410355151</small> | 645 <small>MARKS</small> <small>APPNO. 220410355151</small> | 643 <small>MARKS</small> <small>APPNO. 220410355151</small> | 643 <small>MARKS</small> <small>APPNO. 220410355151</small> | |
| 641 <small>MARKS</small> <small>APPNO. 220410355151</small> | 641 <small>MARKS</small> <small>APPNO. 220410355151</small> | 640 <small>MARKS</small> <small>APPNO. 220410355151</small> | 640 <small>MARKS</small> <small>APPNO. 220410355151</small> | 639 <small>MARKS</small> <small>APPNO. 220410355151</small> | 638 <small>MARKS</small> <small>APPNO. 220410355151</small> | 637 <small>MARKS</small> <small>APPNO. 220410355151</small> | 637 <small>MARKS</small> <small>APPNO. 220410355151</small> | |
| 636 <small>MARKS</small> <small>APPNO. 220410355151</small> | 635 <small>MARKS</small> <small>APPNO. 220410355151</small> | 635 <small>MARKS</small> <small>APPNO. 220410355151</small> | 635 <small>MARKS</small> <small>APPNO. 220410355151</small> | 632 <small>MARKS</small> <small>APPNO. 220410355151</small> | 631 <small>MARKS</small> <small>APPNO. 220410355151</small> | 631 <small>MARKS</small> <small>APPNO. 220410355151</small> | 630 <small>MARKS</small> <small>APPNO. 220410355151</small> | |
| 630 <small>MARKS</small> <small>APPNO. 220410355151</small> | 626 <small>MARKS</small> <small>APPNO. 220410355151</small> | 625 <small>MARKS</small> <small>APPNO. 220410355151</small> | 625 <small>MARKS</small> <small>APPNO. 220410355151</small> | 624 <small>MARKS</small> <small>APPNO. 220410355151</small> | 622 <small>MARKS</small> <small>APPNO. 220410355151</small> | 622 <small>MARKS</small> <small>APPNO. 220410355151</small> | 622 <small>MARKS</small> <small>APPNO. 220410355151</small> | |
| 622 <small>MARKS</small> <small>APPNO. 220410355151</small> | 621 <small>MARKS</small> <small>APPNO. 220410355151</small> | 620 <small>MARKS</small> <small>APPNO. 220410355151</small> | 618 <small>MARKS</small> <small>APPNO. 220410355151</small> | 616 <small>MARKS</small> <small>APPNO. 220410355151</small> | 616 <small>MARKS</small> <small>APPNO. 220410355151</small> | 616 <small>MARKS</small> <small>APPNO. 220410355151</small> | 613 <small>MARKS</small> <small>APPNO. 220410355151</small> | |
| 612 <small>MARKS</small> <small>APPNO. 220410355151</small> | 612 <small>MARKS</small> <small>APPNO. 220410355151</small> | 611 <small>MARKS</small> <small>APPNO. 220410355151</small> | 610 <small>MARKS</small> <small>APPNO. 220410355151</small> | 610 <small>MARKS</small> <small>APPNO. 220410355151</small> | 610 <small>MARKS</small> <small>APPNO. 220410355151</small> | 609 <small>MARKS</small> <small>APPNO. 220410355151</small> | 608 <small>MARKS</small> <small>APPNO. 220410355151</small> | |
| 605 <small>MARKS</small> <small>APPNO. 220410355151</small> | 605 <small>MARKS</small> <small>APPNO. 220410355151</small> | 603 <small>MARKS</small> <small>APPNO. 220410355151</small> | 602 <small>MARKS</small> <small>APPNO. 220410355151</small> | 602 <small>MARKS</small> <small>APPNO. 220410355151</small> | 601 <small>MARKS</small> <small>APPNO. 220410355151</small> | 601 <small>MARKS</small> <small>APPNO. 220410355151</small> | 600 <small>MARKS</small> <small>APPNO. 220410355151</small> | |
| 600 <small>MARKS</small> <small>APPNO. 220410355151</small> | AND MANY MORE | | CONTACT : JALAHALLI BRANCH : 9008030463 / 896 / 9513330437 | | | | HOSKOTE BRANCH : 7760575487 / 9741332998 / 9535527713 | |

#42, 100ft Road, Kammagondanahalli, Jalahalli West, Bengaluru - 560 015.

CHEMISTRY - SECTION - A

51. Amongst the following, the total number of species NOT having eight electrons around central atom in its outer most shell, is $\text{NH}_3, \text{AlCl}_3, \text{BeCl}_2, \text{CCl}_4, \text{PCl}_5$:

- 1) 4 2) 1
3) 3 4) 2

Ans. 3

Sol. Conceptual

52. Some tranquilizers are listed below. Which one from the following belongs to barbiturates?

- 1) valium 2) Veronal
3) Chlordiazepoxide 4) Meprobamate

Ans. 2

Sol. Conceptual

53. Given below are two statements: one is labelled as Assertion A and the other is labelled as Reason R:

Assertion A: A reaction can have zero activation energy.

Reason R: The minimum extra amount of energy absorbed by reactant molecules so that their energy becomes equal to threshold value, is called activation energy.

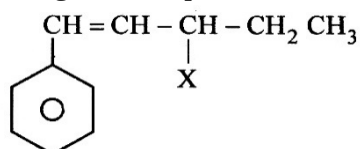
In the light of the above statements, choose the correct answer from the options given below:

- 1) A is true but R is false
2) A is false but R is true
3) Both A and R are true and R is the correct explanation of A.
4) Both A and R are true and R is NOT the correct explanation of A.

Ans. 4

Sol. Conceptual

54. The given compound



Is an example of _____

- 1) allylic halide 2) vinylic halide
3) benzylic halide 4) aryl halide

Ans. 1

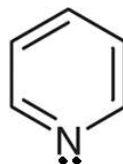
Sol. Conceptual

55. The number of σ bonds, π bonds and lone pair of electrons in pyridine, respectively are:

- 1) 11,3,1 2) 12,2,1
3) 11,2,0 4) 12,3,0

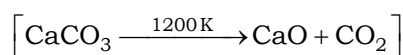
Ans. 1

Sol. Pyridine



11 σ , 3 π , 1LP

56. The right option for the mass of CO_2 produced by heating 20 g of 20 % pure limestone is (Atomic mass of Ca = 40)



- 1) 2.64 g 2) 1.32 g
3) 1.12 g 4) 1.76 g

Ans. 4

Sol. $\text{CaCO}_3 \rightarrow \text{CaO} + \text{CO}_2$

In 100 gm \rightarrow 44 gm CO_2

20 gm \rightarrow ?

$$\frac{20}{100} \times 44 = 8.8\text{g}$$

100% pure \rightarrow 8.8 g of CO_2

20% \rightarrow ?

$$\frac{20}{100} \times 8.8 = 1.76\text{ gm}$$

57. Which one is an example of heterogenous catalysis?

- 1) Decomposition of ozone in presence of nitrogen monoxide.
2) Combination between dinitrogen and dihydrogen to form ammonia in the presence of finely divided iron.
3) Oxidation of sulphur dioxide into sulphur trioxide in the presence of oxides of nitrogen.
4) Hydrolysis of sugar catalysed by H^+ ions.

Ans. 2

Sol. (1) $2\text{O}_3 \xrightarrow{\text{NO}_{(g)}} 3\text{O}_2$
(g) (g)

(2) $\text{N}_2 + 3\text{H}_2 \xrightarrow{\text{Fe}_{(s)}} 2\text{NH}_3$
(g) (g) (g)

58. Given below are two statements: one is labelled as Assertion A and the other is labelled as Reason R:

Assertion A: Metallic sodium dissolves in liquid ammonia giving a deep blue solution, which is paramagnetic.

Reasons R: The deep blue solution is due to the formation of amide.

In the light above statements, choose the correct answer from the options given below.

- 1) A is true but R is false
- 2) A is false but R is true
- 3) Both A and R are true and R is the correct explanation of A.
- 4) Both A and R are true and R is NOT the correct explanation of A.

Ans. 1

Sol. Deep Blue colour is due to ammoniated electron. Amide formation results in a colourless diamagnetic solution.

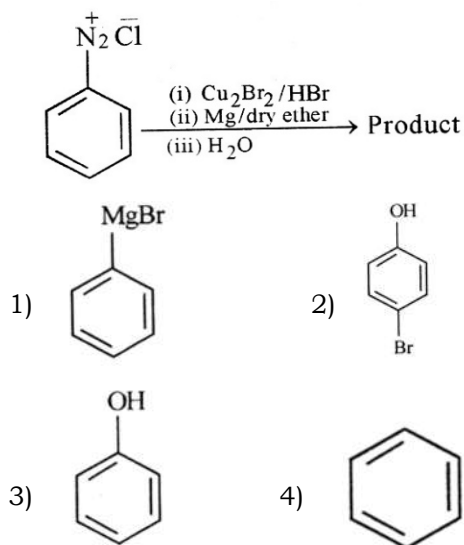
59. Which one of the following statements is correct?

- 1) The bone in human body is an inert and unchanging substance.
- 2) Mg plays roles in neuromuscular function and interneuronal transmission.
- 3) The daily requirement of Mg and Ca in the human body is estimated to be 0.2 – 0.3 g.
- 4) All enzymes that utilise ATP in phosphate transfer require Ca as the cofactor.

Ans. 3

Sol. Conceptual

60. Identify the product in the following reactions:



Ans. 4

Sol. Conceptual

61. For a certain reaction, the rate $= k[A]^2[B]$, when the initial concentration of A is tripled keeping concentration of B constant, the initial rate would.

- 1) Increase by a factor of nine
- 2) increase by a factor of three
- 3) decrease by a factor of nine
- 4) increase by a factor of six

Ans. 1

Sol. Rate $= k[A]^2[B]$

A \rightarrow tripled

B \rightarrow Constant

$$r = k[3A]^2[3B]$$

Increase by a factor of Nine.

62. Which of the following statements are NOT correct?

- A. hydrogen is used to reduce heavy metal oxides to metal.
- B. heavy water is used to study reaction mechanism.
- C. hydrogen is used to make saturated fats from oils
- D. The H – H bond dissociation enthalpy is lowest as compared to a single bond between two atoms of any element.
- E. Hydrogen reduces oxides of metals that are more active than iron.

Choose the most appropriate answer from the options given below:

- 1) D, E only
- 2) A, B, C only
- 3) B, C, D, E only
- 4) B, D only

Ans. 1

Sol. Conceptual

63. Homoleptic complex from the following complexes is:

- 1) Pentaamminecarbonatocobalt (III) chloride
- 2) Triamminetriaquachromium (III) chloride
- 3) Potassium trioxalatoaluminate (III)
- 4) Diamminechloridonitrito – N – platinum (II)

Ans. 3

Sol. $K_3[Al(ox)_3]$

64. In Lassaigne's extract of an organic compound both nitrogen and sulphur are present, which gives red colour with Fe^{3+} due to formation of

- 1) $[Fe(CN)_5 NOS]^{4-}$
- 2) $[Fe(SCN)]^{2+}$
- 3) $Fe_4[Fe(CN)_6]_3 \cdot xH_2O$
- 4) NaSCN

Ans. 2

Sol. $[Fe(SCN)]^{2+}$

Blood red colour confirms the presence of S and N.

65. Given below are two statements: one is labelled as Assertion A and the other is labelled as Reason R:

Assertion A : In equation $\Delta_r G = -nFE_{cell}$, value of $\Delta_r G$ depends on n.

Reason R : E_{cell} is an intensive property and $\Delta_r G$ is an extensive property.

In the light of the above statements, choose the correct answer from the options given below:

- 1) A is true but R is false
- 2) A is false but R is true
- 3) Both A and R are true and R is the correct explanation of A.
- 4) Both A and R are true and R is NOT the correct explanation of A.

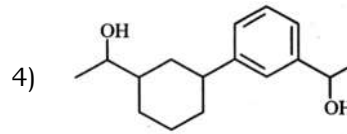
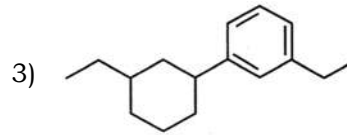
Ans. 1

Sol. E_{cell} is extensive property.

66. Identify product (A) in the following reaction:



- 1)
- 2)



Ans. 3

Sol. Clemmensen's reduction [Zn - Hg and Conc. HCl] reduces Aldehydes ketones to Alkanes.

67. The relation between n_m , (n_m = the number of permission values of magnetic quantum number (m)) for a given value of azimuthal quantum number (l), is

- 1) $n_m = 2l^2 + 1$
- 2) $n_m = l + 2$
- 3) $l = \frac{n_m - 1}{2}$
- 4) $l = 2n_m + 1$

Ans. 3

Sol. $n_m = 2l + 1$ ($\therefore l = -l - 0 - +l$)

If $n_m = 1$ then $l = -1 \ 0 \ 1$

$$n_m = 2l + 1$$

$$l = \frac{n_m - 1}{2}$$

68. The stability of Cu^{2+} is more than Cu^+ salts in aqueous solution due to

- 1) hydration energy
- 2) second ionisation enthalpy
- 3) first ionisation enthalpy
- 4) enthalpy of atomization

Ans. 1

Sol. Cu^{2+} is more stable than Cu^+ in Aq. Solution

Hydration energy due to small ionic size.

69. Match LIST - I with LIST - II:

LIST - I

- A. Coke
- B. Diamond
- C. Fullerene
- D. Graphite

LIST - II

- I. Carbon atoms are sp^3 hybridised.
- II. Used as a dry lubricant
- III. Used as a reducing Agent
- IV. Cage like molecules

Choose the correct answer from the options given below:

- 1) A - III, B - I, C - IV, D - II
- 2) A - III, B - IV, C - I, D - II
- 3) A - II, B - IV, C - I, D - III
- 4) A - IV, B - I, C - II, D - III

Ans. 1

Sol. Diamond - sp^3 → each C surrounded by 4 after C atoms with 4σ bonds.

Graphite → sp^2 Lubricant → (Due to soft & slippery)

Fullerene → → (Gaint molecule)

Coke → Reducing agent

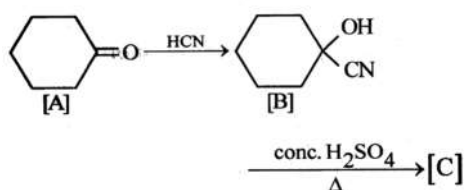
70. Weight (g) of two moles of the organic compound which is obtained by heating sodium ethanoate with sodium hydroxide in presence of calcium oxide is:

- 1) 30 2) 18 3) 16 4) 32

Ans. 4

Sol. $2C_2H_5O^-Na^+ + 2NaOH \xrightarrow[\Delta]{CaO} 2CH_4 + 2Na_2CO_3$

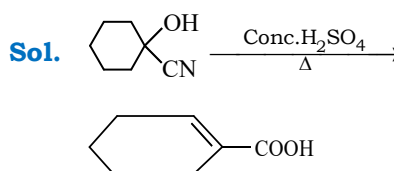
71. Complete the following reaction:



[C] is _____

- 1) 2)
- 3) 4)

Ans. 2



- CN group undergo acid medium hydrolysis
- OH group undergo dehydration

72. Given below are two statements:

Statement I: A unit formed by the attachment of base to 1' position of sugar is known as nucleoside.

Statement II: When nucleoside is linked to phosphorous acid at 5' position of sugar moiety we get nucleotide.

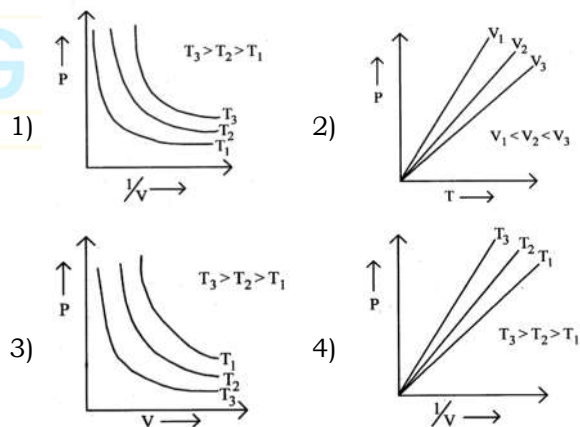
In the light of the above statements, choose the correct answer from the options given below:

- 1) Statement I is true but Statement II is false
- 2) Statement I is false but Statement II is true
- 3) Both Statement I and Statement II are true
- 4) Both Statement I and Statement II are false

Ans. 1

Sol.

73. Which amongst the following options is **correct** graphical representation of Boyle's Law?



Ans. 4

Sol. Then relations

$$P \propto \frac{1}{V}$$

$$P \propto T \text{ and } V \propto T$$

74. A compound is formed by two elements A and B. The element B forms cubic close packed structure and atoms of A occupy 1/3 of tetrahedral voids. If the formula of the compound is A_xB_y , then the value of $x + y$ is in option

- 1) 3 2) 2 3) 5 4) 4

Ans. 3

Sol. B forms ccp structure $\frac{1}{8} \times 8 + 6 \times \frac{1}{2} = 4$

A occupy $\frac{1}{3}$ of TVS = $8 \times \frac{1}{3}$

$$\therefore \frac{A_8}{3} B_4 = A_8 B_{12} = A_2 B_3$$

75. Intermolecular forces are forces of attraction and repulsion between interacting particles that will include

- A. dipole - dipole forces
B. dipole - induced dipole forces
C. hydrogen bonding
D. covalent bonding
E. dispersion forces.

Choose the **most appropriate** answer from the options give below:

- 1) A, B, C, E are correct
2) A, C, D, E are correct
3) B, C, D, E are correct
4) A, B, C, D are correct

Ans. 1

Sol. Conceptual

76. The **correct** order of energies of molecular orbitals of N_2 molecule, is

- 1) $\sigma 1s < \sigma^* 1s < \sigma 2s < \sigma^* 2s < \sigma 2p_z < \sigma^* 2p_z (\pi 2p_x = \pi 2p_y) < (\pi^* 2p_x = \pi^* 2p_y)$
2) $\sigma 1s < \sigma^* 1s < \sigma 2s < \sigma^* 2s < (\pi 2p_x = \pi 2p_y) < (\pi^* 2p_x = \pi^* 2p_y) < \sigma 2p_z < \sigma^* 2p_z$
3) $\sigma 1s < \sigma^* 1s < \sigma 2s < \sigma^* 2s < (\pi 2p_x = \pi 2p_y) < \sigma 2p_z < (\pi^* 2p_x = \pi^* 2p_y) < \sigma^* 2p_z$
4) $\sigma 1s < \sigma^* 1s < \sigma 2s < \sigma^* 2s < \sigma 2p_z < (\pi 2p_x = \pi 2p_y) < (\pi^* 2p_x = \pi^* 2p_y) < \sigma^* 2p_z$

Ans. 3

Sol. Conceptual

77. Taking stability as the factor, which one of the following represents **correct** relationship?

- 1) $AlCl > AlCl_3$ 2) $TlI > TlI_3$
3) $TlCl_3 > TlCl$ 4) $InI_3 > InI$

Ans. 2

Sol. Down the group +1 stability increases

$$\therefore TlI > TlI_3$$

78. The conductivity of centimolar solution of KCl at $25^\circ C$ is $0.0210 \text{ ohm}^{-1} \text{ cm}^{-1}$ and the resistance of the cell containing the solution at $25^\circ C$ is 60 ohm. The value of cell constant is

- 1) 1.26 cm^{-1} 2) 3.34 cm^{-1}
3) 1.34 cm^{-1} 4) 3.28 cm^{-1}

Ans. 1

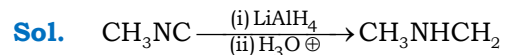
$$\text{Sol. } k = \frac{1}{R} \times \frac{l}{a}$$

$$\begin{aligned} \frac{l}{a} &= kR \\ &= 60 \text{ ohm} \times 0.0210 \text{ ohm}^{-1} \text{ cm}^{-1} \\ &= 1.26 \text{ cm}^{-1} \end{aligned}$$

79. Which of the following reactions will NOT give primary amine as the product?

- 1) $CH_3NC \xrightarrow[\text{(ii) } H_3O^+]{\text{(i) } LiAlH_4} \text{Product}$
2) $CH_3CONH_2 \xrightarrow[\text{(ii) } H_3O^+]{\text{(i) } LiAlH_4} \text{Product}$
3) $CH_3CONH_2 \xrightarrow{Br_2/KOH} \text{Product}$
4) $CH_3CN \xrightarrow[\text{(ii) } H_3O^+]{\text{(i) } LiAlH_4} \text{Product}$

Ans. 1



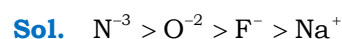
2° Amine

Remaining gives 1° Amine

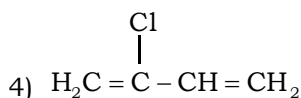
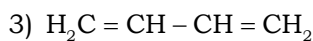
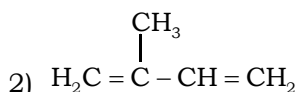
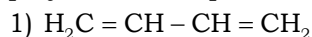
80. The element expected to form largest ion to achieve the nearest noble gas configuration is

- 1) N 2) Na
3) O 4) F

Ans. 1



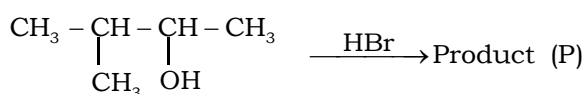
81. Which amongst the following molecules on polymerization produces neoprene?



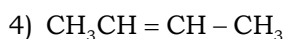
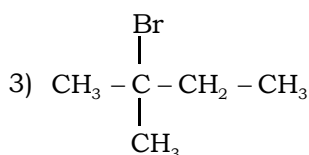
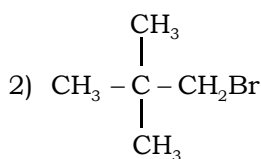
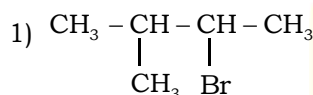
Ans. 4

Sol. Neoprene \rightarrow 2-chloro-1,3-butadiene

82. Consider the following reaction and identify the product (P).

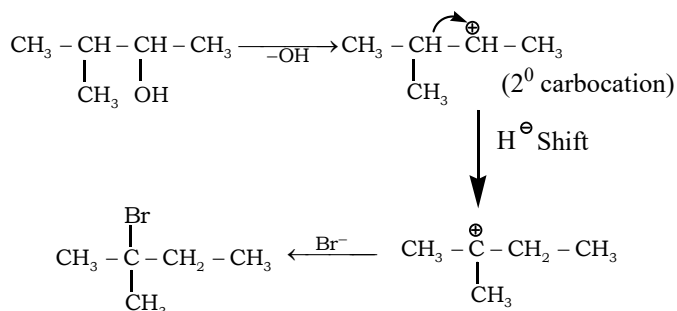


3-Methylbutan-2-ol



Ans. 3

Sol.



83. Select the **correct** statements from the following.

(A) Atoms of all elements are composed of two fundamental particles.

(B) The mass of the electron is $9.10939 \times 10^{-31} \text{ kg}$.

(C) All the isotopes of a given element show same chemical properties.

(D) Protons and electrons are collectively known as nucleons.

(E) Dalton's atomic theory, regarded the atom as an ultimate particle of matter.

Choose the correct answer from the options given below.

1) A and E only 2) B, C and E only

3) A, B and C only 4) C, D and E only

Ans. 2

Sol. B, C and E only

84. Given below are two statements: one is labelled as Assertion A and the other is labelled as Reason R:

Assertion (A): Helium is used to dilute oxygen in diving apparatus.

Reason (R): Helium has high solubility in O_2 .

In the light of the above statements, choose the correct answer from the options given below.

1) A is true but R is false

2) A is false but R is true

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

4) Both A and R are true and R is NOT the correct explanation of A

Ans. 1

Sol. Conceptual

85. Among the given options which of the following molecules / ion acts as a Lewis acid?

1) BF_3

2) OH^-

3) NH_3

4) H_2O

Ans. 1

Sol. Conceptual

CHEMISTRY - SECTION - B

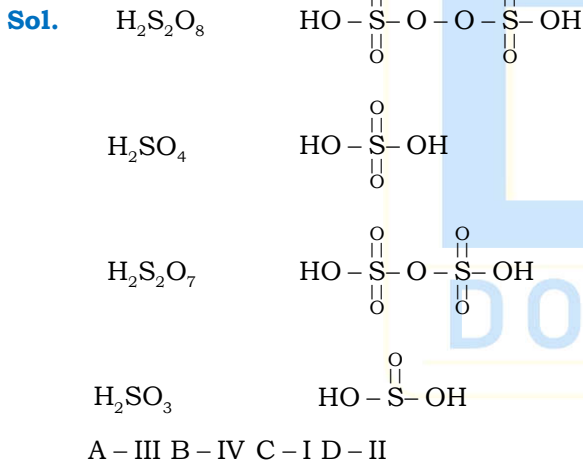
86. Match List-I with List-II.

| List-I (Oxoacids of Sulphur) | List-II (Bonds) |
|------------------------------|--------------------------------------|
| A) Peroxo di sulphuric acid | I) Two S-OH, Four S=O, one S-O-S |
| B) Sulphuric acid | II) Two S-OH, One S=O |
| C) Pyrosulphuric acid | III) Two S-OH, Four S=O, One S-O-O-S |
| D) Sulphurous acid | IV) Two S-OH, Two S=O |

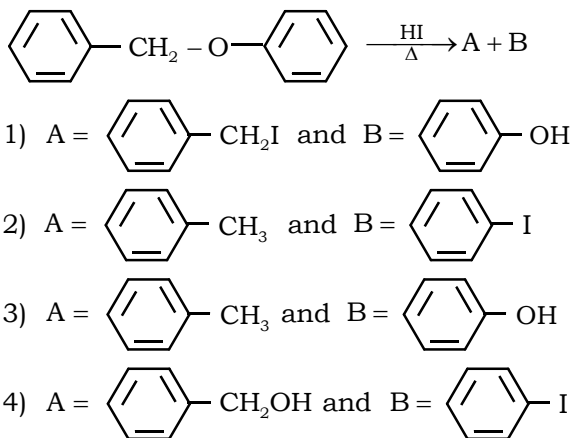
Choose the correct answer from the options given below.

- 1) A-I, B-III, C-IV, D-II
- 2) A-III, B-IV, C-II, D-I
- 3) A-I, B-III, C-II, D-IV
- 4) A-III, B-IV, C-I, D-II

Ans. 4

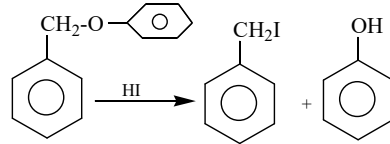


87. Consider the following reaction :



Ans. 1

Sol.

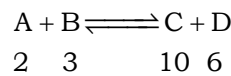


88. The equilibrium concentrations of the species in the reaction $A + B \rightleftharpoons C + D$ are 2, 3, 10 and 6 mol L⁻¹, respectively at 300 K, ΔG° for the reaction is (R = 2 cal / molK)

- 1) -1381.80 cal
- 2) -13.73 cal
- 3) 1372.60 cal
- 4) -137.26 cal

Ans. 1

Sol.



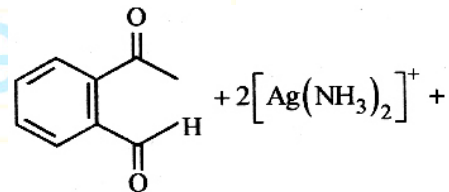
$$K_c = \frac{10 \times 6}{2 \times 3} = 10$$

$$\Delta G^\circ = -2.303 RT \log K_c$$

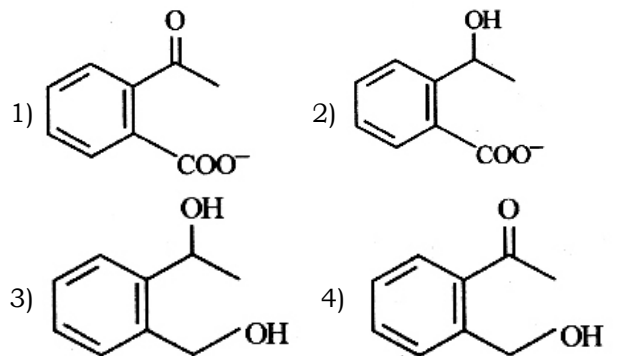
$$= -2.303 \times 2 \times 300 \times 1$$

$$= -1381.8 \text{ cal}$$

89. Identify the major product obtained in the following reaction :

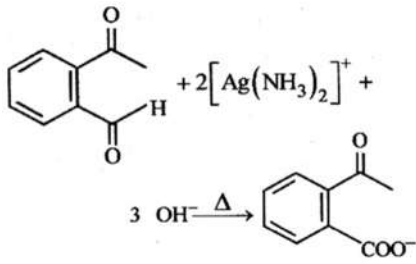


3 OH⁻ $\xrightarrow{\Delta}$ Major product



Ans. 1

Sol.



90. Pumice stone is an example of
1) solid sol 2) foam
3) sol 4) gel

Ans. 1

Sol. Conceptual

91. Which amongst the following options is the **correct** relation between change in enthalpy and change in internal energy?
1) $\Delta H - \Delta U = -\Delta nRT$ 2) $\Delta H + \Delta U = \Delta nR$
3) $\Delta H = \Delta U - \Delta n_g RT$ 4) $\Delta H = \Delta U + \Delta n_g RT$

Ans. 4

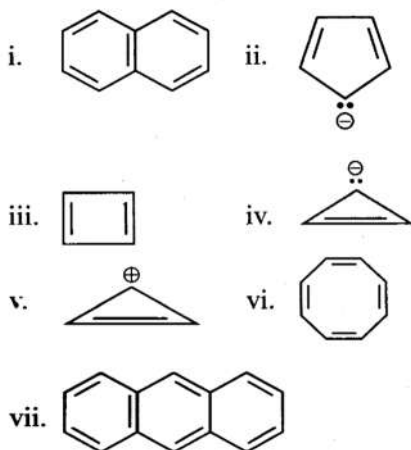
Sol. Conceptual

92. The reaction that does NOT take place in a blast furnace between 900 K and 1500 K temperature range during extraction of iron is:
1) $C + CO_2 \rightarrow 2CO$
2) $CaO + SiO_2 \rightarrow CaSiO_3$
3) $Fe_2O_3 + CO \rightarrow 2FeO + CO_2$
4) $FeO + CO \rightarrow Fe + CO_2$

Ans. 3

Sol. NCERT page No 160

93. Consider the following compounds/species



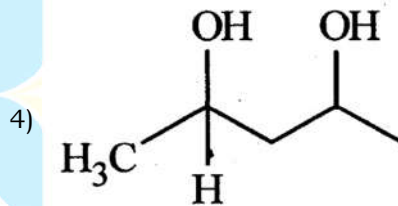
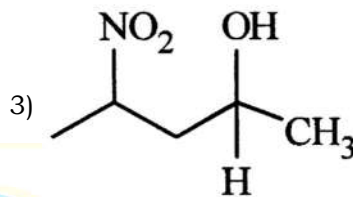
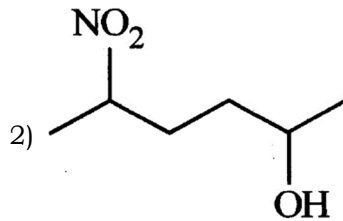
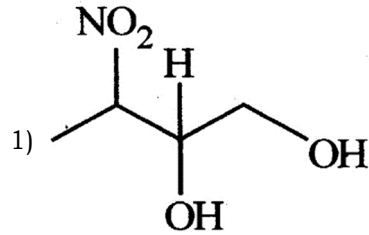
The number of compounds/species which obey Huckel's rule is ____.

- 1) 2 2) 5 3) 4 4) 6

Ans. 3

Sol. i, ii, v, vii only Huckel's rule

94. Which amongst the following will be most readily dehydrated under acidic conditions?



Ans. 2

Sol.

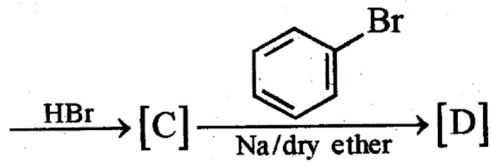
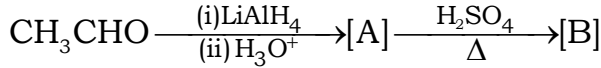
95. What fraction of one edge centred octahedral void lies in one unit cell of fcc?

- 1) $\frac{1}{4}$ 2) $\frac{1}{12}$
3) $\frac{1}{2}$ 4) $\frac{1}{3}$

Ans. 1

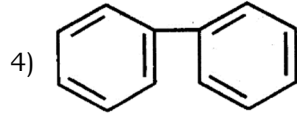
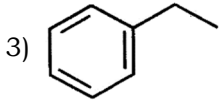
Sol. At edge centre, contribution is $\frac{1}{4}$

96. Identify the final product [D] obtained in the following sequence of reactions.



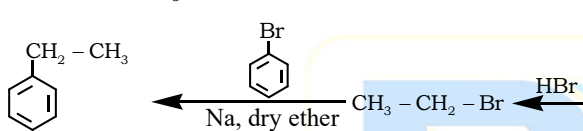
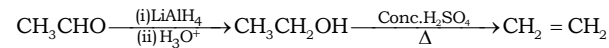
1) C_4H_{10}

2) $\text{HC} \equiv \text{C}^- \text{Na}^+$



Ans. 3

Sol.



97. Given below are two statements.

Statement-I: The nutrient deficient water bodies lead to eutrophication.

Statement-II: Eutrophication leads to decrease in the level of oxygen in the water bodies.

In the light of the above statements, choose the correct answer from the options given below

- 1) Statement-I is correct but Statement-II is false
- 2) Statement-I is incorrect but Statement-II is true
- 3) Both Statement-I and Statement-II are true
- 4) Both Statement-I and Statement-II are false

Ans. 2

Sol. Conceptual

98. Which of the following statements are **INCORRECT**?

(A) All the transition metals except scandium form MO oxides which are ionic.

(B) The highest oxidation number corresponding to the group number in transition metal oxides is attained in Sc_2O_3 to Mn_2O_7 .

(C) Basic character increases from V_2O_3 to V_2O_4 to V_2O_5 .

(D) V_2O_4 dissolves in acids to give VO_4^{3-} salts.

(E) CrO is basic but Cr_2O_3 is amphoteric.

Choose the correct answer from the options given below:

- 1) C and D only
- 2) B and C only
- 3) A and E only
- 4) B and D only

Ans. 1

Sol. Conceptual

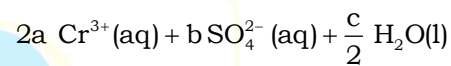
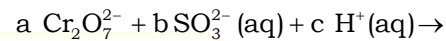
99. Which complex compound is most stable?

- 1) $[\text{CoCl}_2(\text{en})_2]\text{NO}_3$
- 2) $[\text{Co}(\text{NH}_3)_6]_2(\text{SO}_4)_3$
- 3) $[\text{Co}(\text{NH}_3)_4(\text{H}_2\text{O})\text{Br}](\text{NO}_3)_2$
- 4) $[\text{Co}(\text{NH}_3)_3(\text{NO}_3)_3]$

Ans. 1

Sol. Chelating Ligands form more stable complexes

100. On balancing the given redox reaction,



The coefficients a, b and c are found to be respectively.

- 1) 1, 8, 3
- 2) 8, 1, 3
- 3) 1, 3, 8
- 4) 3, 8, 1

Ans. 3

Sol. Conceptual



DR ACADEMY

DO RIGHT FOR GENUINE EDUCATION

A Premier Institute for NEET Coaching

डि.आर. अकादमी

BENGALURU, HYDERABAD

LONG TERM COACHING
1ST BATCH FOR NEET - 2024

STARTS ON
14-06-2023

NEET TOPPERS OF DR ACADEMY



NEET - 2021
JIPMER PUDUCHERRY

LAKSHMAN REDDY

695

MARKS



NEET - 2022
BIMC, BELAGAVI

SACHI KALLOLI

677

MARKS



NEET - 2022
AIIMS, BHOPAL

CHATHUSH GOWDA D S

675

MARKS

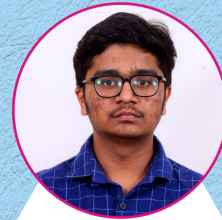


NEET - 2022
BMC, BANGALORE

CHANDANA D

672

MARKS



NEET - 2022
BMC, BANGALORE

SOWRAV B

672

MARKS



NEET - 2021
BMC, BANGALORE

RASHMI PATIL

665

MARKS



NEET - 2020
BMC, BANGALORE

JAYANTH L S

665

MARKS



NEET - 2022
BMC, BANGALORE

SIDDHARTH A S

662

MARKS



NEET - 2021
KIMS, HUBLI

NACHIKET KEMPANNA

660

MARKS

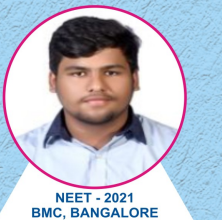


NEET - 2021
AIIMS, HYDERABAD

VARUN KAJAGAR

656

MARKS

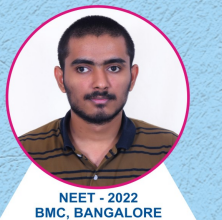


NEET - 2021
BMC, BANGALORE

KUMARESH HIREMATH

654

MARKS

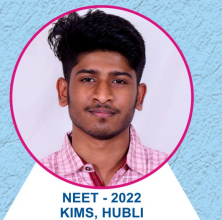


NEET - 2022
BMC, BANGALORE

SANKALP

650

MARKS

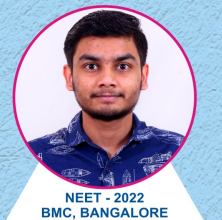


NEET - 2022
KIMS, HUBLI

ABHIJIT RAMESH MIRJI

650

MARKS

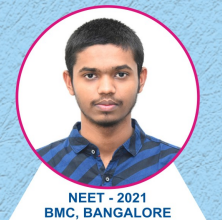


NEET - 2022
BMC, BANGALORE

SUPRIT SAMJAY K

647

MARKS



NEET - 2021
BMC, BANGALORE

PRAMOD I HONAGOUD

647

MARKS



NEET - 2020
BMC, BANGALORE

CHANDAN S

647

MARKS

website : www.dracademy.co.in

LTM ADMISSIONS OPEN

THE JOURNEY...
NEET MEDICAL SELECTIONS



JOURNEY CONTINUES...

Total 1200+ Medical Selections

in five consecutive years.

Our students joined in many reputed medical colleges across Karnataka.

| | | | | | | |
|--|--|---|---|---|--|--|
| NEET 2022 BMC, BANGALORE SHIVAANI S GOUNDER 646 MARKS | NEET 2022 KIMS, HUBLI ROHAN R KONGI 646 MARKS | NEET 2022 BMC, BANGALORE SAATHVIK S G 645 MARKS | NEET 2021 MMCRI, MYSORE AJEETH MALLAPPA T 645 MARKS | NEET 2022 SMC, CHENNAI S NAYANA 643 MARKS | NEET 2022 BMC, BANGALORE VAISHNAVI REDDY 643 MARKS | NEET 2021 MMCRI, MYSORE CHANDANA N 643 MARKS |
| NEET 2021 SMC, CHENNAI NARENDRA BABU T V 642 MARKS | NEET 2022 BMC, BANGALORE PRAJWAL PATIL B R 641 MARKS | NEET 2022 BMC, BANGALORE FIZA ANJUM I T 641 MARKS | NEET 2022 BMC, BANGALORE CHINMAY SWAMY A M 640 MARKS | NEET 2022 MMCRI, MYSORE YASHAS T S 640 MARKS | NEET 2022 KIMS, HUBLI SOUMYA R BADAI 639 MARKS | NEET 2022 MMCRI, MYSORE NATARAJ K V 638 MARKS |
| NEET 2022 BMC, BANGALORE AKASH S PATHRI 637 MARKS | NEET 2022 BMC, BANGALORE TEJA A 637 MARKS | NEET 2022 BMC, BANGALORE SHASHANK S K 636 MARKS | NEET 2021 BMC, BANGALORE CHANDAN B S 636 MARKS | NEET 2021 KIMS, HUBLI DILEEP KUMAR PAGGI 636 MARKS | NEET 2022 BMC, BANGALORE AVINASH FAKEERAPPA Y 635 MARKS | NEET 2022 BMC, BANGALORE RAKESH M 635 MARKS |
| NEET 2021 MMCRI, MYSORE SURAJ B N MALALI 635 MARKS | NEET 2021 SABVIMS, BENGALURU ARJUN P J 633 MARKS | NEET 2022 MMCRI, MYSORE MALLIKARJUNA B V 632 MARKS | NEET 2022 KIMS, HUBLI SHRISHAIL SANASANI 631 MARKS | NEET 2022 KIMS, HUBLI SUJEET M ATHANI 631 MARKS | NEET 2022 SABVIMS, BENGALURU CHARITHA P S 631 MARKS | NEET 2022 JSSMC, MYSORE SHIVADEEP S S 630 MARKS |
| NEET 2022 MMCRI, MYSORE PANKAJ BASANAGOUD PATIL 630 MARKS | NEET 2021 BMC, BANGALORE ARCHANA SUBHASH K 630 MARKS | NEET 2020 BMC, BANGALORE DIWAKAR R 629 MARKS | NEET 2020 KIMS, HUBLI SRUSHTHI A SHETTAR 628 MARKS | NEET 2022 MMCRI, MYSORE SRINIVASA B C 626 MARKS | NEET 2021 MMCRI, MYSORE NANDINI 626 MARKS | NEET 2022 BJ MC, PUNE ANANYA MUDGAL 625 MARKS |
| NEET 2022 MMCRI, MYSORE AKASH M S 625 MARKS | NEET 2022 BMC, BANGALORE HARISH KUMAR MIRJI 624 MARKS | NEET 2022 KIMS, HUBLI DEEKSHITHA D A 622 MARKS | NEET 2022 KIMS, HUBLI PRERANA N M 622 MARKS | NEET 2022 KIMS, HUBLI PRASHANT S D 622 MARKS | NEET 2022 SABVIMS, BENGALURU RAVI KIRAN M V 622 MARKS | NEET 2021 BMC, BANGALORE PRASANNA KUMAR B 622 MARKS |

BOTANY - SECTION - A

- 101.** What is the role of RNA polymerase III in the process of transcription in Eukaryotes?
 1) Transcription of precursor of mRNA
 2) Transcription of only snRNAs
 3) Transcription of rRNAs (28S, 18S and 5.8 S)
 4) Transcription of tRNA, 5 srRNA and snRNA

Ans. 4

Sol.

- 102.** Family Fabaceae differs from Solanaceae and Liliaceae. With respect to the stamens, pick out the characteristics specific to family Fabaceae but not found in Solanaceae or Liliaceae.

- 1) Monoadelphous and Monothealous anthers
- 2) Epiphyllous and Dithealous anthers
- 3) Diadelphous and Dithealous anthers
- 4) Polyadelphous and epipetalous stamens

Ans. 3

Sol.

- 103.** In the equation

$$GPP - R = NPP$$

GPP is Gross Primary Productivity

NPP is Net Primary Productivity

R here is _____.

- 1) Respiratory loss
- 2) Reproductive allocation
- 3) Photosynthetically active radiation
- 4) Respiratory quotient

Ans. 1

Sol.

- 104.** Spraying of which of the following phytohormone on juvenile conifers helps in hastening the maturity period, that leads to early seed production?

- 1) Zeatin
- 2) Abscisic Acid
- 3) Indole-3-butyric Acid
- 4) Gibberellic Acid

Ans. 4

Sol.

- 105.** Axile placentation is observed in
 1) Tomato, Dianthus and Pea
 2) China rose, Petunia and Lemon
 3) Mustard, Cucumber and Primrose
 4) China rose, Beans and Lupin

Ans. 2

Sol.

- 106.** Among eukaryotes, replication of DNA takes place in

- | | |
|-------------------------|-------------------------|
| 1) G ₁ phase | 2) G ₂ phase |
| 3) M phase | 4) S phase |

Ans. 4

Sol.

- 107.** How many ATP and NADPH₂ are required for the synthesis of one molecule of Glucose during Calvin cycle?

- 1) 12 ATP and 16 NADPH₂
- 2) 18 ATP and 16 NADPH₂
- 3) 12 ATP and 12 NADPH₂
- 4) 18 ATP and 12 NADPH₂

Ans. 4

Sol.

- 108.** Given below are two statements: one is labelled as Assertion A and the other is labelled as Reason R:

Assertion A: The first stage of gametophyte in the life cycle of moss is protonema stage.

Reason R: Protonema develops directly from spores produced in capsule.

In the light of the above statements, choose the most appropriate answer from the options given below:

- 1) A is correct but R is not correct.
- 2) A is not correct but R is correct.
- 3) Both A and R are correct and R is the correct explanation of A.
- 4) Both A and R are correct and R is NOT the correct explanation of A.

Ans. 3

Sol.

109. Movement and accumulation of ions across a membrane against their concentration gradient can be explained by

- 1) Passive Transport
- 2) Active Transport
- 3) Osmosis
- 4) Facilitated Diffusion

Ans. 2

Sol.

110. Unequivocal proof that DNA is the genetic material was first proposed by

- 1) Avery, Macleoid and McCarthy
- 2) Willkins and Franklin
- 3) Frederick Griffith
- 4) Alfred Hershey and Martha Chase

Ans. 4

Sol.

111. Which of the following stages of meiosis involves division of centromere?

- 1) Anaphase II
- 2) Telophase
- 3) Metaphase I
- 4) Metaphase II

Ans. 1

Sol.

112. Given below are two statement: One is labelled as Assertion A and the other is labelled as Reason R:

Assertion A: ATP is used at two steps in glycolysis.

Reason R: First ATP is used in converting glucose into glucose-6-phosphate and second ATP is used in conversion of fructose-6-phosphate into fructose-1-6-diphosphate.

In the light of the above statements, choose the correct answer from the options given below:

- 1) A is true but R is false.
- 2) A is false but R is true.
- 3) Both A and R are true and R is the correct explanation of A.
- 4) Both A and R are true and R is NOT the correct explanation of A.

Ans. 3

Sol.

113. Large, colourful, fragrant flowers with nectar are seen in:

- 1) Bat pollinated plants
- 2) Wind pollinated plants
- 3) Insect pollinated plants
- 4) Bird pollinated plants

Ans. 3

Sol.

114. The historic Convention on Biological Diversity, 'The Earth Summit' was held in Rio de Janeiro in the year:

- 1) 1986
- 2) 2002
- 3) 1985
- 4) 1992

Ans. 4

Sol.

115. The thickness of ozone in a column of air in the atmosphere is measured in terms of:

- 1) Decemeter
- 2) Kilobase
- 3) Dobson units
- 4) Decibels

Ans. 3

Sol.

116. In tissue culture experiments, leaf mesophyll cells are put in a culture medium to form callus. This phenomenon may be called as:

- 1) Development
- 2) Senescence
- 3) Differentiation
- 4) Dedifferentiation

Ans. 4

Sol.

117. Given below are two statements:

Statement I: Endarch and exarch are the terms often used for describing the position of secondary xylem in the plant body.

Statement II: Exarch condition is the most common feature of the root system.

In the light of the above statements, choose the correct answer from the options given below.

- 1) Statement I is correct but Statement II is false
- 2) Statement I is incorrect but Statement II is true.
- 3) Both Statement I and Statement II are true.
- 4) Both Statement I and Statement II are false.

Ans. 2

Sol.

118. What is the function of tassels in the corn cob?

- 1) To disperse pollen grains
- 2) To protect seeds
- 3) To attract insects
- 4) To trap pollen grains

Ans. 4

Sol.

- 119.** The process of appearance of recombination nodules occurs at which sub stage of prophase I in meiosis?
 1) Diplotene 2) Diakinesis
 3) Zygotene 4) Pachytene

Ans. 4
Sol.

- 120.** Identify the pair of heterosporous pteridophytes among the following:
 1) Psilotum and Salvinia
 2) Equisetum and Salvinia
 3) Lycopodium and Selaginella
 4) Selaginella and Salvinia

Ans. 4
Sol.

- 121.** The reaction centre in PS II has an absorption maxima at
 1) 660 nm 2) 780 nm 3) 680 nm 4) 700 nm

Ans. 3
Sol.

- 122.** In angiosperm, the haploid, diploid and triploid structures of a fertilized embryo sac sequentially are:
 1) Synergids, Zygote and primary endosperm nucleus
 2) Synergids, Antipodals and Polar nuclei
 3) Synergids, Primary Endosperm Nucleus and zygote
 4) Antipodals, Synergids and Primary Endosperm Nucleus

Ans. 1
Sol.

- 123.** Given below are two statements: One is labelled as Assertion A and the other is labelled as Reason R:
Assertion A: Late wood has fewer xylary elements with narrow vessels.
Reason R: Cambium is less active in winters.
 1) A is true but R is false.
 2) A is false but R is true.
 3) Both A and R are true and R is the correct explanation of A.
 4) Both A and R are true and R is not the correct explanation of A.

Ans. 3
Sol.

- 124.** The phenomenon of pleiotropism refers to
 1) a single gene affecting multiple phenotypic expression.
 2) more than two genes affecting a single character.
 3) Presence of several alleles of a single gene controlling a single crossover.
 4) presence of two allelets, each of the two genes controlling a single trait.

Ans. 1
Sol.

- 125.** Cellulose does not form blue colour with iodine because
 1) It does not contain complex helices and hence cannot hold iodine molecules.
 2) It breaks down when iodine reacts with it.
 3) It is a disaccharide.
 4) It is a helical molecule.

Ans. 1
Sol.

- 126.** Frequency of recombination between gene pairs on same chromosome as a measure of the distance between genes to map their position on chromosome, was used for the first time by
 1) Alfred Sturtevant 2) Henking
 3) Thomas Hunt Morgan
 4) Sutton and Boveri

Ans. 1
Sol.

- 127.** Given below are two statements:
Statement I: The forces generated by transpiration can lift a xylem-sized column of water over 130 meters height.
Statement II: Transpiration cools leaf surface sometimes 10 to 15 degrees, by evaporative cooling.
 In the light of the above statements, choose the most appropriate answer from the options given below:
 1) Statement I is correct but Statement II is incorrect
 2) Statement I is incorrect but Statement II is correct.
 3) Both Statement I and Statement II are correct.
 4) Both Statement I and Statement II are incorrect.

Ans. 3
Sol.

128. Upon exposure to UV radiation, DNA stained with ethidium bromide will show
- 1) Bright yellow colour
 - 2) Bright orange colour
 - 3) Bright red colour
 - 4) Bright blue colour

Ans. 2

Sol.

129. Which micronutrient is required for splitting of water molecule during photosynthesis?
- 1) Magnesium
 - 2) Copper
 - 3) Manganese
 - 4) Molybdenum

Ans. 3

Sol.

130. Which hormone promotes internode/petiole elongation in deep water rice?
- 1) Ethylene
 - 2) 2, 4-D
 - 3) GA₃
 - 4) Kinetin

Ans. 1

Sol.

131. Identify the correct statements:
- A. Detrivores perform fragmentation.
 - B. The humus is further degraded by some microbes during mineralization.
 - C. Water soluble inorganic nutrients go down into the soil and get precipitated by a process called leaching.
 - D. The detritus food chain begins with living organisms.
 - E. Earthworms breaks down detritus into smaller particles by a process called catabolism.

Choose the correct answer from the options given below.

- 1) C, D, E only
- 2) D, E, A only
- 3) A, B, C only
- 4) B, C, D only

Ans. 3

Sol.

132. In gene gun method used to introduce alien DNA into host cells, microparticles of _____ metal are used.
- 1) Tungsten or gold
 - 2) Silver
 - 3) Copper
 - 4) Zinc

Ans. 1

Sol.

133. During the purification process for recombinant DNA technology, addition of chilled ethanol precipitates out
- 1) Histones
 - 2) Polysaccharides
 - 3) RNA
 - 4) DNA

Ans. 4

Sol.

134. Among 'The Evil Quartet', which one is considered the most important cause driving extinction of species?
- 1) Alien species invasions
 - 2) Co-extinctions
 - 3) Habitat loss and fragmentation
 - 4) Over exploitation for economic gain

Ans. 3

Sol.

135. Expressed sequence Tags (ESTs) refers to
- 1) All genes whether expressed or unexpressed.
 - 2) Certain important expressed genes.
 - 3) All genes that are expressed as RNA
 - 4) All genes that are expressed as proteins.

Ans. 3

Sol.

BOTANY - SECTION - B

136. Given below are two statements : one is labelled as Assertion A and the other is labelled as Reason R:

Assertion A: In gymnosperms the pollen grains are released from the microsporangium and carried by air currents

Reason R: Air currents carry the pollen grains to the mouth of the archegonia where the male gametes are discharged and pollen tube is not formed.

In the light of the above statements, choose the correct answer from the options given below:

- 1) A is true but R is false
- 2) A is false but R is true
- 3) Both A and R are true and R is the correct explanation of A
- 4) Both A and R are true but R is NOT the correct explanation of A

Ans. 1

Sol.

- 137.** Identify the correct statements:
- A. Lenticels are the lens-shaped openings permitting the exchange of gases.
 - B. Bark formed early in the season is called hard bark.
 - C. Bark is a technical term that refers to all tissues exterior to vascular cambium.
 - D. Bark refers to periderm and secondary phloem
 - E. Phellogen is single-layered in thickness
- Choose the correct answer from the options given below
- 1) A, B and D only 2) B and C only
 3) B, C and E only 4) A and D only

Ans. 4
Sol.

- 138.** Match List I with list II
- | | |
|------------------------------|--------------------------------|
| List I | List II |
| A. Oxidative Decarboxylation | I. Citrate synthase |
| B. Glycolysis | II. Pyruvate Dehydrogenase |
| C. Oxidative Phosphorylation | III. Electron transport system |
| D. Tricarboxylic Acid cycle | IV. EMP pathway |
- Choose the correct answer from the options given below:
- 1) A-III, B-I, C-II, D-IV
 2) A-II, B-IV, C-III, D-I
 3) A-III, B-IV, C-II, D-I
 4) A-II, B-IV, C-I, D-III

Ans. 2
Sol.

- 139.** How many different proteins does the ribosome consist of ?
- 1) 40 2) 20 3) 80 4) 60

Ans. 3
Sol.

- 140.** Given below are two statements;
- Statements I:** Gause's competitive exclusion principle states that two closely related species competing for the same resources cannot co-exist indefinitely and competitively inferior one will be eliminated eventually
- Statements II:** In general carnivores are more adversely affected by competition than herbivores.
- In the light of the above statements, choose the correct answer from the option given below
- 1) statement I is correct but Statement II is false
 2) statement I is incorrect but Statement II is true
 3) Both statement I and Statement III are true
 4) Both statement I and Statement II are false

Ans. 1
Sol.

- 141.** Match List I with List II
- | | List-I | | List-II |
|---|-----------------|-----|---|
| A | Cohesion | I | More attraction in liquid phase |
| B | Adhesion | II | Mutual attraction among water molecules |
| C | Surface tension | III | Water loss in liquid phase |
| D | Guttation | IV | Attraction towards polar surfaces |

Choose the correct answer from the options given below,

1) A-III, B-I, C-IV, D-II
 2) A-II, B-I, C-IV, D-III
 3) A-II, B-IV, C-I, D-III
 4) A-IV, B-III, C-II, D-I

Ans. 3
Sol.

- 142.** Which one of the following statements is NOT correct?
- 1) Water hyacinth grows abundantly in eutrophic water bodies and leads to an imbalance in the ecosystem dynamics of the water body.
 - 2) The amount of some toxic substances of industrial waste water increases in the organisms at successive trophic levels.
 - 3) The micro-organisms involved in biodegradation of organic matter in a sewage polluted water body consume a lot of oxygen causing the death of aquatic organisms.
 - 4) Algal blooms caused by excess of organic matter in water improve water quality and promote fisheries.

Ans. 4
Sol.

- 143.** Given below are two statements: One is labelled as Assertion A and the other is labelled as Reason R:

Assertion A: A flower is defined as modified shoot wherein the shoot apical meristem changes to floral meristem.

Reason R: Internode of the shoot gets condensed to produce different floral appendages laterally at successive nodes instead of leaves.

In the light of the above statements, choose the correct answer from the options given below:

- 1) A is true but R is false.
- 2) A is false but R is true.
- 3) Both A and R are true and R is the correct explanation of A.
- 4) Both A and R are true and R is NOT the correct explanation of A.

Ans. 3
Sol.

- 144.** Melonate inhibits the growth of pathogenic bacteria by inhibiting the activity of

- 1) Lipase
- 2) Dinitrogenase
- 3) Succinic dehydrogenase
- 4) Amylase

Ans. 3
Sol.

- 145.** Match List I with List II.

List I

- A. M phase
- B. G₂ phase
- C. Quiescent stage
- D. G₁ phase

List II

- I. Proteins are synthesized
- II. Inactive phase
- III. Interval between Mitosis and Initiation of DNA
- IV. Equatorial division

Choose the correct answer from the options given below

- 1) A-IV, B-I, C-II, D-III
- 2) A-II, B-IV, C-I, D-II
- 3) A-IV, B-II, C-I, D-II
- 4) A-IV, B-II, C-I, D-III

Ans. 1
Sol.

- 146.** Which of the following combinations is required for chemiosmosis?

- 1) proton pump, electron gradient, ATP synthase
- 2) proton pump, electron gradient, NADP synthase
- 3) membrane, proton pump proton gradient, ATP synthase
- 4) membrane, proton pump, proton gradient, NADP synthase

Ans. 3
Sol.

- 147.** Main steps in the formation of Recombinant DNA are given below. Arrange these steps in a correct sequence

- A. Insertion of recombinant DNA into the host cell.
- B. Cutting of DNA at specific location by restriction enzyme.
- C. Isolation of desired DNA fragment
- D. Amplification of gene of interest using PCR

Choose the correct answer from the options given below:

- 1) C, B, D, A
- 2) B, D, A, C
- 3) B, C, D, A
- 4) C, A, B, D

Ans. 3
Sol.

148. Which of the following statements are correct about klinefelter's Syndrome?
 A. This disorder was first described by Langdon Down (1866)
 B. Such an individual has overall masculine development. However, the feminine development is also expressed
 C. The affected individual is short statured
 D. Physical, psychomotor and mental development is retarded.
 E. Such individuals are sterile.
 Choose the correct answer from the options given below:

- 1) B and E only 2) A and E only
 3) A and B only 4) C and D only

Ans. 1
Sol.

149. Match List I List II

List I

- A. Iron
 B. Zinc
 C. Boron
 D. Molybdenum

List II

- I. synthesis of auxin
 II. Components of nitrate reductase
 III. Activator of catalase
 IV. Cell elongation and Differentiation

Choose the correct answer from the options given below

- 1) A-III, B-I, C-IV, D-II
 2) A-II, B-IV, C-I, D-IV
 3) A-III, B-II, C-I, D-IV
 4) A-II, B-III, C-IV, D-I

Ans. 1
Sol.

150. Match List I with List II

List I

(Interaction)

- A. Mutualism
 B. Commensalism
 C. Amensalism
 D. Parasitism

List II

(Species A and B)

- I. +(A), O(B)
 II. -(A), O(B)
 III. +(A), -(B)
 IV. +(A), +(B)

Choose the correct answer from the options given below:

- 1) A-IV, B-III, C-I, D-II 2) A-III, B-I, C-IV, D-II
 3) A-IV, B-II, C-I, D-III 4) A-IV, B-I, C-II, D-III

Ans. 4
Sol.

ZOOLOGY - SECTION - A

151. Once the undigested and unabsorbed substance enter the caecum, their backflow is prevented by
 1) Gastro - oesophageal sphincter
 2) Pyloric sphincter
 3) Sphincter of Oddi
 4) Ileo - caecal valve

Ans. 4
Sol.

152. Match List I with List II

| List I | List II |
|--------------|--|
| A. Heroin | I. Effect on cardiovascular system |
| B. Marijuana | II. Slow down body function |
| C. Cocaine | III. Painkiller |
| D. Morphine | IV. Interfere with transport of dopamine |

Choose the correct answer from the options given below

- 1) A - IV; B - III; C - II; D - I
 2) A - III; B - IV; C - I; D - II
 3) A - II; B - I; C - IV; D - III
 4) A - I; B - II; C - III; D - IV

Ans. 3
Sol.

153. Which of the following functions is carried out by cytoskeleton in a cell?

- 1) Motility 2) Transportation
 3) Nuclear division 4) Protein synthesis

Ans. 1
Sol.

154. Given below are two statements: One is labelled as Assertion A and the other is labelled as Reason R.

Assertion A: Amniocentesis for sex determination is one of the strategies of Reproductive and Child Health Care Programme.

Reason R: Ban on amniocentesis checks increasing menace of female foeticide. In the light of the above statements, choose the **correct** answer from the options given below:

- 1) A is true but R is false
- 2) A is false but R is true
- 3) Both A and R are true and R is the correct explanation of A
- 4) Both A and R are true and R is NOT the correct explanation of A

Ans. 2

Sol.

155. Given below are two statements:

Statements I: Vas deferens receives a duct from seminal vesicle and opens into urethra as the ejaculatory duct.

Statement II: The cavity of the cervix is called cervical canal which along with vagina forms birth canal

In the light of the above statements, choose the correct answer from the options given below.

- 1) Statement I is correct but Statement II is false
- 2) Statement I is incorrect but Statement II is true
- 3) Both statement I and Statement II are true
- 4) Both Statement I and Statement II are false

Ans. 3

Sol.

156. Match List I with List II

| List I | List II |
|----------------|----------------------------------|
| A. P-wave | I. Beginning of systole |
| B. Q-wave | II. Repolarisation of ventricles |
| C. QRS complex | III. Depolarisation of atria |
| D. T-wave | IV. Depolarisation of ventricles |

Choose the **correct** answer from the options given below:

- 1) A - II; B - IV; C - I; D - III
- 2) A - I; B - II; C - III; D - IV

3) A - III; B - I; C - IV; D - II

4) A - IV; B - III; C - II; D - I

Ans. 3

Sol.

157. Given below are two statements:

Statement I: A protein is imagined as a line, the left end represented by first amino acid (C-terminal) and the right end represented by last amino acid (N-terminal)

Statement II: Adult human haemoglobin, consists of 4 subunits (two subunits of α type and two subunits of β type)

In the light of the above statements, choose the **correct** answer from the options given below:

- 1) Statement I is true but Statement II is false
- 2) Statement I is false but Statement II is true
- 3) Both Statement I and Statement II are true
- 4) Both Statement I and Statement II are false

Ans. 2

Sol.

158. Match List I with List II

| List I | List II |
|---------------|----------------------------------|
| A. Ringworm | I. <i>Haemophilus influenzae</i> |
| B. Filariasis | II. <i>Trichophyton</i> |
| C. Malaria | III. <i>Wuchereria bancrofti</i> |
| D. Pneumonia | IV. <i>Plasmodium vivax</i> |

1) A - III; B - II; C - I; D - IV

2) A - II; B - II; C - IV; D - I

3) A - II; B - III; C - IV; D - I

4) A - II; B - III; C - I; D - IV

Ans. 3

Sol.

159. Vital capacity of lung is _____

1) IRV + ERV + TV - RV

2) IRV + ERV + TV

3) IRV + ERV

4) IRV + ERV + TV + RV

Ans. 2

Sol.

- 160.** Which of the following statements are correct regarding female reproductive cycle?
- A. In non-primate mammals cyclical changes during reproduction are called oestrus cycle
 - B. First menstrual cycle begins at puberty and is called menopause
 - C. Lack of menstruation may be indicative of pregnancy
 - D. Cyclic menstruation extends between menarche and menopause
- Choose the **most appropriate** answer from the options given below:
- 1) A, B and C only 2) A, C and D only
 - 3) A and D only 4) A and B only

Ans. 2
Sol.

- 161.** Match List I with List II

| List I (Cells) | List II (Secretion) |
|------------------|--|
| A. Peptic cells | I. Mucus |
| B. Goblet cells | II. Bile juice |
| C. Oxyntic cells | III. Proenzyme pepsinogen |
| D. Hepatic cells | IV. HCl and intrinsic factor for absorption of vitamin B ₁₂ |

Choose the **correct** answer from the options given below:

- 1) A - III; B - I; C - IV; D - II
- 2) A - II; B - IV; C - I; D - III
- 3) A - IV; B - I; C - III; D - IV
- 4) A - II; B - I; C - III; D - IV

Ans. 1
Sol.

- 162.** Match List I with List II

| List I | List II |
|-----------------------|----------------------|
| A. Vasectomy | I. Oral method |
| B. Coitus interruptus | II. Barrier method |
| C. Cervical caps | III. Surgical method |
| D. Saheli | IV. Natural method |

Choose the correct answer from the options given below

- 1) A - II; B - III; C - I; D - IV
- 2) A - IV; B - II; C - I; D - III
- 3) A - III; B - I; C - IV; D - II
- 4) A - III; B - IV; C - II; D - I

Ans. 4
Sol.

- 163.** Match List I with List II

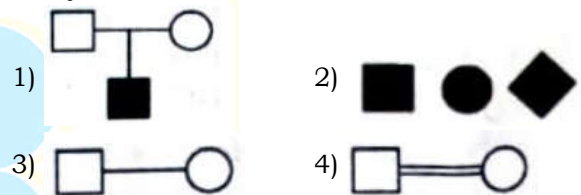
| List I | List II |
|-----------------------|-------------------------|
| A. <i>Taenia</i> | I. Nephridia |
| B. <i>Paramoecium</i> | II. Contractile vacuole |
| C. <i>Periplaneta</i> | III. Flame cells |
| D. <i>Pheretima</i> | IV. Urecose gland |

Choose the **correct** answer from the options given below:

- 1) A - III; B - II; C - IV; D - I
- 2) A - II; B - I; C - IV; D - III
- 3) A - I; B - II; C - III; D - IV
- 4) A - I; B - II; C - IV; D - III

Ans. 1
Sol.

- 164.** Which of the following symbols represents mating between relative in human pedigree analysis?



Ans. 4
Sol.

- 165.** Which of the following statements is correct?

- 1) Presence of large amount of nutrients in water restricts 'Algal Bloom'
- 2) Algal Bloom decreases fish mortality
- 3) Eutrophication refers to increase in domestic sewage and waste water in lakes
- 4) Biomagnification refers to increase in concentration of the toxicant at successive trophic level

Ans. 4
Sol.

- 166.** Which of the following are NOT considered as the part of endomembrane system?

| | |
|-----------------|-------------------------|
| A. Mitochondria | B. Endolasmic reticulum |
| C. Chloroplast | D. Golgi complex |
| E. Peroxisomes | |

Choose the most appropriate answer from the options given below.

- 1) A and D only 2) A, D and E only
- 3) B and D only 4) A, C and E only

Ans. 4
Sol.

167. Select the correct groups of Australian, Marsupials exhibiting adaptive radiation.
- 1) Mole, Flying squirrel, Tasmanian tigercat
 - 2) Lemur, Anteater, Wolf
 - 3) Tasmanian wolf, Babcat, Marsupial mole
 - 4) Numbat, Spotted cuscus, Flying phalanger

Ans. 4

Sol.

168. Given below are two statements:

Statement I: In prokaryotes, the positively charged DNA is held with some negatively charged proteins in a region called nucleoid.

Statement II: In eukaryotes, the negatively charged DNA is wrapped around the positively charged histone octamer to form nucleosome. In the light of the above statements, choose the correct answer from the options given below:

- 1) Statement I is true but Statement II is false
- 2) Statement I is false but Statement II is true
- 3) Both Statement I and Statement II are true
- 4) Both Statement I and Statement II are false

Ans. 2

Sol.

169. Given below are two statements:

Statement I: Electrostatic precipitator is most widely used in thermal power plant.

Statement II: Electrostatic precipitator in thermal power plant removes ionising radiations

In the light of the above statements, choose the most appropriate answer from the options given below:

- 1) Statement I is true but Statement II is false
- 2) Statement I is false but Statement II is true
- 3) Both Statement I and Statement II are true
- 4) Both Statement I and Statement II are false

Ans. 1

Sol.

170. Match List I with List II.

| List I | List II |
|--------|--------------------|
| A. CCK | I. Kidney |
| B. GIP | II. Heart |
| C. ANF | III. Gastric gland |
| D. ADH | IV. Pancreas |

Choose the correct answer from the options given below:

- 1) A-II, B-IV, C-I, D-III
- 2) A-IV, B-II, C-III, D-I
- 3) A-IV, B-III, C-II, D-I
- 4) A-III, B-II, C-IV, D-I

Ans. 3

Sol.

171. Given below are two statements: One is labelled as Assertion A and the other is labelled as Reason R.

Assertion A: Nephrons are of two types: Cortical & Juxta medullary, based on their relative position in cortex and medulla.

Reason R: Juxta medullary nephrons have short loop of Henle whereas, cortical nephrons have longer loop of Henle.

In the light of the above statements, choose the correct answer from the options given below:

- 1) A is true but R is false
- 2) A is false but R is true
- 3) Both A and R are true and R is the correct explanation of A
- 4) Both A and R are true and R is NOT the correct explanation of A

Ans. 1

Sol.

172. In which blood corpuscles, the HIV undergoes replication and produces progeny viruses?

- 1) Basophils
- 2) Eosinophils
- 3) T_H cells
- 4) B-lymphocytes

Ans. 3

Sol.

173. Given below are two statements: One is labelled as Assertion A and the other is labelled as Reason R.

Assertion A: Endometrium is necessary for implantation of blastocyst.

Reason R: In the absence of fertilization, the corpus luteum degenerates that causes disintegration of endometrium

In the light of the above statements, choose the correct answer from the options given below.

- 1) A is true but R is false
- 2) A is false but R is true
- 3) Both A and R are true and R is the correct explanation of A
- 4) Both A and R are true and R is NOT the correct explanation of A

Ans. 4

Sol.

174. Given below are two statements:

Statement I: RNA mutates at a faster rate.

Statement II: Viruses having RNA genome and shorter life span mutate and evolve faster
In the light of the above statements, choose the correct answer from the options given below:

- 1) Statement I is true but Statement II is false
- 2) Statement I is false but Statement II is true
- 3) Both Statement I and Statement II are true
- 4) Both Statement I and Statement II are false

Ans. 3

Sol.

175. Match List I with List II with respect to human eye.

| List I | List II |
|---------------|---|
| A. Fovea | I. Visible coloured portion of eye that regulates diameter of pupil |
| B. Iris | II. External layer of eye formed of dense connective tissue |
| C. Blind spot | III. Point of greatest visual acuity or resolution |
| D. Sclera | IV. Point where optic nerve leaves the eyeball and photoreceptor cells are absent |

Choose the correct answer from the options given below:

- 1) A - I; B - IV; C - III; D - II
- 2) A - II; B - I; C - III; D - IV
- 3) A - III; B - I; C - IV; D - II
- 4) A - IV; B - III; C - II; D - I

Ans. 3

Sol.

176. Given below are two statements:

Statement I: Ligaments are dense irregular tissue.

Statement II: Cartilage is dense regular tissue.

In the light of the above statements, choose the correct answer from the options given below:

- 1) Statement I is true but Statement II is false
- 2) Statement I is false but Statement II is true
- 3) Both Statement I and Statement II are true
- 4) Both Statement I and Statement II are false

Ans. 4

Sol.

177. Match List I List II.

| List I | List II |
|-------------|---------------------------|
| A. Gene 'a' | I. β -galactosidase |
| B. Gene 'y' | II. Transacetylase |
| C. Gene 'i' | III. Permease |
| D. Gene 'z' | IV. Repressor protein |

Choose the correct answer from the options given below:

- 1) A-III, B-IV, C-I, D-II
- 2) A-III, B-I, C-IV, D-II
- 3) A-II, B-I, C-IV, D-III
- 4) A-II, B-III, C-IV, D-I

Ans. 4

Sol.

178. Given below are two statements:

Statement I: Low temperature preserves the enzyme in a temporarily inactive state whereas high temperature destroys enzymatic activity because proteins are denatured by heat.

Statement II: When the inhibitor closely resembles the substrate in its molecular structure and inhibits the activity of the enzyme, it is known as competitive inhibitor.
In the light of the above statements, choose the correct answer from the options given below:

- 1) Statement I is true but Statement II is false
- 2) Statement I is false but Statement II is true
- 3) Both Statement I and Statement II are true
- 4) Both Statement I and Statement II are false

Ans. 3

Sol.

179. Match List I with List II.

| List I (Type of Joint) | List II (Found between) |
|---------------------------|--|
| A. Cartilaginous joint | I. Between flat skull bones |
| B. Ball and Socket joint | II. Between adjacent vertebrae in vertebral column |
| C. Fibrous joint | III. Between carpal and metacarpal of thumb |
| D. Saddle joint | IV. Between Humerus and Pectoral girdle |

Choose the correct answer from the options given below:

- 1) A-I, B-IV, C-III, D-II
- 2) A-II, B-IV, C-III, D-I
- 3) A-III, B-I, C-II, D-IV
- 4) A-II, B-IV, C-I, D-III

Ans. 4

Sol.

180. Match List I with List II.

| List I (Interacting species) | List II (Name of Interaction) |
|--|----------------------------------|
| A. A Leopard and a Lion in a forest/grassland | I. Brood parasitism |
| B. A Cuckoo laying egg in a Crow's nest | II. Brood parasitism |
| C. Fungi and root of a higher plant in Mycorrhizae | III. Mutualism |
| D. A cattle egret and a Cattle in a field | IV. Commensalism |

Choose the correct answer from the options given below:

- 1) A-III, B-IV, C-I, D-II
- 2) A-II, B-III, C-I, D-II
- 3) A-I, B-II, C-III, D-IV
- 4) A-I, B-II, C-IV, D-III

Ans. 3

Sol.

181. Which of the following is not a cloning vector?

- 1) pBR322
- 2) Probe
- 3) BAC
- 4) YAC

Ans. 2

Sol.

182. Broad palm with single palm crease is visible in a person suffering from

- 1) Klinefelter's syndrome
- 2) Thalassemia
- 3) Down's syndrome
- 4) Turner's syndrome

Ans. 3

Sol.

183. Which one of the following techniques does not serve the purpose of early diagnosis of a disease for its early treatment?

- 1) Polymerase chain reaction (PCR) technique
- 2) Enzyme Linked Immuno-Sorbent Assay (ELISA) technique
- 3) Recombinant DNA Technology
- 4) Serum and Urine analysis

Ans. 4

Sol.

184. Radial symmetry is NOT found in adults of phylum__.

- 1) Coelenterata
- 2) Echinodermata
- 3) Ctenophora
- 4) Hemichordata

Ans. 4

Sol.

185. Which one of the following common sexually transmitted diseases is completely curable when detected early and treated properly?

- 1) Hepatitis-B
- 2) HIV Infection
- 3) Genital herpes
- 4) Gonorrhoea

Ans. 4

Sol.

ZOOLOGY - SECTION - B

186. In cockroach, excretion is brought about by

- A. Phallic gland
- B. Urecose gland
- C. Nephrocytes
- D. Fat body
- E. Collateral glands

Choose the correct answer from the options given below:

- 1) B, C and D only
- 2) B and D only
- 3) A and E only
- 4) A, B and E only

Ans. 1

Sol.

187. Match List I with List II.

| List I | List II |
|-----------------------------|-----------------------------------|
| A. Mast cells | I. Ciliated epithelium |
| B. Inner surface | II. Areolar connective tissue |
| C. Blood | III. Cuboidal epithelium |
| D. Tubular parts of nephron | IV. Specialised connective tissue |

Choose the correct answer from the options give below:

- 1) A-II, B-I, C-IV, D-III
- 2) A-III, B-IV, C-II, D-I
- 3) A-I, B-II, C-IV, D-III
- 4) A-II, B-III, C-I, D-IV

Ans. 1

Sol.

188. Match List I with List II

| List I | List II |
|--------------------------|--|
| A. Logistic growth | I. Unlimited resource availability condition |
| B. Exponential growth | II. Limited resource availability condition |
| C. Expanding age pyramid | III. The percent individuals of pre-reproductive and post reproductive age groups |
| D. Stable age pyramid | IV. The percent individuals of pre-reproductives and reproductive age group are same |

Choose the correct answer from the options give below:

- 1) A-II, B-IV, C-I, D-III
- 2) A-II, B-IV, C-III, D-I
- 3) A-II, B-I, C-III, D-IV
- 4) A-II, B-III, C-I, D-IV

Ans. 3

Sol.

189. Which of the following are NOT under the control of thyroid hormone?

- A. Maintenance of water and electrolyte balance
- B. Regulation of basal metabolic rate
- C. Normal rhythm of sleep-wake cycle
- D. Development of immune system
- E. Support the process of R.B.Cs formation

Choose the correct answer from the options given below:

- 1) C and D only
- 2) D and E only
- 3) A and D only
- 4) B and C only

Ans. 1

Sol.

190. Which of the following statements are correct regarding skeletal muscle?

- A. Muscle bundles are held together by collagenous connective tissue layer called fascicle.
- B. Sarcoplasmic reticulum of muscle fibre is a store house of calcium ions.
- C. Striated appearance of skeletal muscle fibre is due to distribution pattern of actin and myosin proteins.
- D. M line is considered as functional unit of contraction called sarcomere.

Choose the most appropriate answer from the options given below :

- 1) A, C and D only
- 2) C and D only
- 3) A, B and C only
- 4) B and C only

Ans. 4

Sol.

191. Select the correct statements with reference to chordates.

- A. Presence of mid-dorsal, solid and double nerve cord.
- B. Presence of closed circulatory system.
- C. Presence of paired pharyngeal gillslits.
- D. Presence of dorsal heart
- E. Triploblastic pseudocoelomate animals.

Choose the correct answer from the options given below:

- 1) B, D and E only
- 2) C, D and E only
- 3) A, C and D only
- 4) B and C only

Ans. 4

Sol.

192. The unique mammalian characteristics are:

- 1) hairs, pinna and indirect development
- 2) pinna, monocondylic skull and mammary glands
- 3) hairs, tympanic membrane and mammary glands
- 4) hairs, pinna and mammary glands

Ans. 4

Sol.

193. Select the correct statements.

- A. Tetrad formation is seen during Leptotene.
- B. During Anaphase, the centromeres split and chromatids separate
- C. Terminalization takes place during Pachytene
- D. Nucleolus, Golgi complex and ER are reformed during Telophase.
- E. Crossing over takes place between sister chromatids of homologous chromosome.

Choose the correct answer from the options given below:

- 1) A, C and E only
- 2) B and E only
- 3) A and C only
- 4) B and D only

Ans. 4

Sol.

194. Given below are two statements:

Statement I: During G_0 phase of cell cycle, the cell is metabolically inactive.

Statement II: The centrosome undergoes duplication during S phase of interphase.

In the light of the above statements, choose the most appropriate answer from the options given below:

- 1) Statement I is correct but Statement II is incorrect
- 2) Statement I is incorrect but Statement II is correct
- 3) Both Statement I and Statement II are correct
- 4) Both Statement I and Statement II are incorrect

Ans. 2

Sol.

195. Which of the following statements are correct?

- A) An excessive loss of body fluid from the body switches off osmoreceptors
- B) ADH facilitates water reabsorption to prevent diuresis
- C) ANF causes vasodilation
- D) ADH causes increase in blood pressure
- E) ADH is responsible for decrease in GFR

Choose the correct answer from the options given below:

- | | |
|--------------------|--------------------|
| 1) A, B and E only | 2) C, D and E only |
| 3) A and B only | 4) B, C and D only |

Ans. 4

Sol.

196. Which of the following is characteristic feature of cockroach regarding sexual dimorphism?

- 1) Presence of sclerites
- 2) Presence of anal cerci
- 3) Dark brown body colour and anal cerci
- 4) Presence of anal styles

Ans. 4

Sol.

197. The parts of human brain that helps in regulation of sexual behaviour, expression of excitement, pleasure, rage, fear etc. are:

- 1) Brain stem & epithalamus
- 2) Corpus callosum and thalamus
- 3) Limbic system & hypothalamus
- 4) Corpora quadrigemina & hippocampus

Ans. 3

Sol.

198. Which one of the following is the sequence on corresponding coding strand, if the sequence on mRNA formed is as follows

5'AUCGAUCGAUCGAUCGAUCGAUCGAUCG 3'?

- 1) 5' ATCGATCGATCGATCGATCGATCGATCG 3'
- 2) 3' ATCGATCGATCGATCGATCGATCGATCG 5'
- 3) 5' UAGCUAGCUAGCUAGCUAGCUAGCUAGC 3'
- 4) 3' UAGCUAGCUAGCUAGCUAGCUAGCUAGC 5'

Ans. 1

Sol.

199. Which of the following statements are correct?

- A. Basophils are most abundant cells of the total WBCs
- B. Basophils secrete histamine, serotonin and heparin
- C. Basophils are involved in inflammatory response
- D. Basophils have kidney shaped nucleus
- E. Basophils are agranulocytes

Choose the correct answer from the options given below:

- | | |
|-----------------|-----------------|
| 1) B and C only | 2) A and B only |
| 3) D and E only | 4) C and E only |

Ans. 1

Sol.

200. Which one of the following is NOT an advantage of inbreeding?

- 1) Elimination of less desirable genes and accumulation of superior genes takes place due to it
- 2) It decreases the productivity of inbred population, after continuous inbreeding
- 3) It decreases homozygosity
- 4) It exposes harmful recessive genes that are eliminated by selection

Ans. 2

Sol.

| | | | | | | |
|---|--|--|--|---|---|---|
| NEET 2021 BMC, BANGALORE M SHASHANK GOWDA 622 MARKS | NEET 2021 KIMS, HUBLI MISBA PATHAN 622 MARKS | NEET 2021 SABVIMS, BENGALURU SHRUTI PATIL 622 MARKS | NEET 2020 BMC, BANGALORE VEERESH P W 622 MARKS | NEET 2022 SABVIMS, BENGALURU YASHWANTH GOWDA D S 621 MARKS | NEET 2022 SABVIMS, BENGALURU ATHREYA A 620 MARKS | NEET 2021 SABVIMS, BENGALURU CHANDUSHREE D 620 MARKS |
| NEET 2022 KIMS, HUBLI ROHAN PRABHAKARA 618 MARKS | NEET 2022 KMC, CHENNAI VIJAY M 616 MARKS | NEET 2022 KIMS, HUBLI CHETAN APPASAB H 616 MARKS | NEET 2022 KIMS, HUBLI BOOMIKA C 616 MARKS | NEET 2021 MMCRI, MYSORE PRAJWAL KUMAR C R 615 MARKS | NEET 2021 KIMS, HUBLI NOOPUR SHEETAL KAGI 614 MARKS | NEET 2021 KIMS, HUBLI MADHURI D Y 614 MARKS |
| NEET 2021 KIMS, HUBLI MANJUNATH M S 614 MARKS | NEET 2020 MMCRI, MYSORE NITEESH P 614 MARKS | NEET 2022 SIMS, SHIMOGA PRIYA R 613 MARKS | NEET 2021 BMC, BANGALORE HARISH BASANAGOUDA R 613 MARKS | NEET 2021 MMCRI, MYSORE JAMUNA S P 613 MARKS | NEET 2022 KIMS, HUBLI RANJITHA K P 612 MARKS | NEET 2022 KIMS, HUBLI CHETHAN TAKOOR S 612 MARKS |
| NEET 2021 KIMS, HUBLI SANMATI SHARANAPPA 612 MARKS | NEET 2022 KIMS, HUBLI BHARATH SAJJAN R 611 MARKS | NEET 2021 KIMS, HUBLI SAHANA R PATIL 611 MARKS | NEET 2021 KIMS, HUBLI VINITH G S 611 MARKS | NEET 2020 MIMS, MANDYA RISHITHA S 611 MARKS | NEET 2022 SIMS, SHIMOGA BHUMIKA B 610 MARKS | NEET 2022 MIMS, MANDYA CHINMAY U 610 MARKS |
| NEET 2022 MMCRI, MYSORE RAHUL YADAV 610 MARKS | NEET 2021 KIMS, HUBLI ABDUR RAHMAN K 610 MARKS | NEET 2021 SABVIMS, BENGALURU NEHA AZMATH 610 MARKS | NEET 2022 KIMS, HUBLI NUTHAN KUMAR 609 MARKS | NEET 2020 AIMS, HYDERABAD MITHUN 609 MARKS | NEET 2022 MIMS, MANDYA MANVANTH C 608 MARKS | NEET 2022 KIMS, HUBLI CHETAN 605 MARKS |
| NEET 2021 SABVIMS, BENGALURU BHARATH KUMAR M R 605 MARKS | NEET 2021 KIMS, HUBLI PREETI A KAMATAGI 605 MARKS | NEET 2021 KIMS, HUBLI ANJAN KUMAR G 605 MARKS | NEET 2021 KIMS, HUBLI PRATHAM P KUNDUR 605 MARKS | NEET 2021 KIMS, HUBLI VISHAL TAKKALAKI 604 MARKS | NEET 2022 HIMS, HASSAN YUKTHI SAAHITHYA P 603 MARKS | NEET 2022 KIMS, HUBLI SADASHIV S BATAKURKI 602 MARKS |
| NEET 2022 KIMS, HUBLI PRATIK VISHNU NAIK 602 MARKS | NEET 2021 MIMS, MANDYA HEMPRASAD M T 602 MARKS | NEET 2021 MIMS, MANDYA SWATHI S 602 MARKS | NEET 2022 BMC, BELAGAVI SPOORTI RAJENDRA K 601 MARKS | NEET 2022 GIMS, GULBARGA PRUTHVI 601 MARKS | NEET 2022 BIMC, BELAGAVI VAISHNAVI BIRADAR 600 MARKS | NEET 2021 BIMC, BELAGAVI NEELA SIDDAPPA K 600 MARKS |

NEET 2022
MIMS, MANDYA
SUBHASH CHANDRA B G
600
MARKS

INCREDIBLY OUTSTANDING RESULTS - NEET - 2022

| | | | |
|----------------------------|------------|----------------------------|------------|
| 600 MARKS AND ABOVE | 62 | 550 MARKS AND ABOVE | 153 |
| 520 MARKS AND ABOVE | 225 | 500 MARKS AND ABOVE | 276 |

AND MANY MORE...

Highest success rate in Medical (MBBS) selections

OUR STUDENTS IN VARIOUS MEDICAL COLLEGES

| COLLEGE NAME | NO. OF STUDENTS | COLLEGE NAME | NO. OF STUDENTS |
|---|-----------------|--|-----------------|
| BANGALORE MEDICAL COLLEGE, BANGALORE | 41 | VYDEHI INSTITUTE OF MEDICAL SCIENCE, BANGALORE | 13 |
| KARNATAKA INSTITUTE OF MEDICAL SCINCES, HUBLI | 81 | ESI INSTITUTE OF MEDICAL SCIENCES, RAJAJINAGAR | 12 |
| S. NIJALINGAPPA MEDICAL COLLEGE BAGALKOTE | 59 | SRINIVASA MEDICAL RESEARCH CENTER, MANGALORE | 11 |
| BELAGAVI INSTITUTE OF MEDICAL SCIENCES, BELAGAVI | 57 | B.L.D.E UNIVERSITY, BIJAPUR | 10 |
| MANDYA INSTITUTE OF MEDICAL SCIENCES, MANDYA | 43 | JGMM MEDICAL COLLEGE, HUBBALLI | 10 |
| RAICHUR INSTITUTE OF MEDICAL SCIENCES, RAICHUR | 39 | KHAJA BANDA NAWAZ MEDICAL SCIENCES, GULBARGA | 10 |
| SHIMOGA INSTITUTE OF MEDICAL SCIENCES, SHIMOGA | 38 | SHRIDEVI INSTITUTE OF MEDICAL SCIENCES, TUMKUR | 10 |
| GULBARGA INSTITUTE OF MEDICAL SCIENCES, GULBARGA | 36 | ADICHUNCHANAGIRI INSTITUTE OF MEDICAL SCIENCES, MANDYA | 9 |
| CHAMARAJANAGAR INSTITUTE OF MEDICAL SCIENCE, | 34 | G R MEDICAL COLLEGE AND RESEARCH CENTER, MANGALORE | 9 |
| GADAG INSTITUTE OF MEDICAL SCIENCES, GADAG | 34 | ADICHUNCHANAGIRI INSTITUTE OF MEDICAL SCIENCES, HASSAN | 8 |
| KARWAR INSTITUTE OF MEDICAL SCIENCE, KARWAR | 33 | BASAVESWARA MEDICAL COLLEGE AND HOSPITAL, CHITRADURGA | 8 |
| KODAGU INSTITUTE OF MEDICAL SCIENCES, MADIKERI | 31 | DR. CHANDRAMMA DAYANANDA SAGAR MEDICAL, RAMANAGARA | 8 |
| HASSAN INSTITUTE OF MEDICAL SCIENCES, HASSAN | 29 | MVJ MEDICAL COLLEGE AND RESEARCH HOSPITAL, BANGALORE | 8 |
| MAHADEVAPPA RAMPURE MEDICAL COLLEGE, GULBARGA | 29 | SRI BASAVESHWARA MEDICAL COLLEGE, CHITRADURGA | 7 |
| JJM MEDICAL COLLEGE, DAVANGERE | 28 | RAJARAJESHWARI MEDICAL COLLEGE, BANGALORE | 6 |
| KOPPAL INSTITUTE OF MEDICAL SCIENCES, KOPPAL | 27 | JIPMER PUDUCHERRY | 1 |
| MYSORE MEDICAL COLLEGE & RESEARCH INSTITUTE, MYSORE | 27 | CHIKKAMAGALURU INSTITUTE OF MEDICAL, CHIKKAMAGALURU | 5 |
| VIJAYANAGAR INSTITUTE OF MEDICAL SCIENCES, BELLARY | 27 | ESIC MEDICAL COLLEGE, KALABURAGI | 5 |
| KANACHUR INSTITUTE OF MEDICAL SCIENCES, MANGALORE | 24 | K VENKATARAMANA GOWDA MEDICAL COLLEGE, SULIYA | 5 |
| SHRI ATAL BIHARI VAJPAYEE MEDICAL SCIENCE, B,LORE | 24 | YADGIRI INSTITUTE OF MEDICAL SCIENCES, YADGIRI | 5 |
| SS INSTITUTE OF MEDICAL SCIENCES, DAVANGERE | 24 | A.J.INSTITUTE OF MEDICAL SCIENCES, NH - 66, MANGALORE | 4 |
| SDM COLLEGE OF MEDICAL SCIENCES AND HOSPITAL, DHARWAD | 23 | DR BR AMBEDKAR MEDICAL COLLEGE, BANGALORE | 4 |
| SAPTHAGIRI INSTITUTE OF MEDICAL SCIENCES, BENGALURU | 22 | HAVERI INSTITUTE OF MEDICAL SCIENCES, HAVERI | 4 |
| BIDAR INSTITUTE OF MEDICAL SCIENCES, BIDAR | 21 | JAWAHAR LAL NEHRU MEDICAL COLLEGE, BELAGAVI | 4 |
| EAST POINT COLLEGE OF MEDICAL, BANGALORE | 21 | M.S. RAMAIAH MEDICAL COLLEGE, BANGALORE | 4 |
| NAVODAYA MEDICAL COLLEGE HOSPITAL, RAICHUR | 21 | ALL INDIA INSTITUTE OF MEDICAL SCIENCES, HYDERABAD | 3 |
| SRI SIDDHARTHA MEDICAL COLLEGE, TUMKUR | 21 | JSS MEDICAL COLLEGE, MYSORE | 3 |
| THE OXFORD MEDICAL COLLEGE HOSPITAL, BANGALORE | 19 | KASTURBA MEDICAL COLLEGE, MANGALORE | 3 |
| AKASH INSTITUTE OF MEDICAL SCIENCES, BANGALORE | 14 | KEMPEGOWDA INSTITUTE OF MEDICAL SCIENCES, BANGALORE | 3 |
| CHIKKABALLAPURA INSTITUTE OF MEDICAL SCIENCE, BENGALURU | 14 | BV DEEMED UNI. MED. COLLEGE AND HOS., MAHARASHTRA. | 2 |
| SUBBAIAH INSTITUTE OF MEDICAL, SHIVAMOGGA | 14 | FATHER MULLER INSTITUTE OF MED. EDUCATION, MANGALORE | 2 |
| AL-AMEEN MEDICAL COLLEGE, VIJAYAPUR | 13 | KLE MEDICAL COLLEGE, BELGAUM | 2 |
| BGS GLOBAL INSTITUTE OF MEDICAL SCIENCES, BANGALORE | 13 | MAHATMA GANDHI INSTITUTE OF MEDICAL SCIENCES, PUDICHERRY | 2 |

Day & Residential / Separate Hostel for Boys & Girls

and many more...

JALAHALLI

#42, 100ft Road, Kammagondanahalli, Jalahalli West, Bengaluru - 560 015

9008030463 / 9008030896 / 9513330437

HOSKOTE

LTM BOYS CAMPUS :- Defence Colony, Virognagar, Cheemasandra, Avalahalli South, Hoskote - 560049

LTM GIRLS CAMPUS :- 1st Main Road, Beside Adithya PU College, 4th Cross, TG Extension, Hoskote.

9741332998 / 7760575487 / 9535527713

HYDERABAD CAMPUSES

GIRLS CAMPUS :- Door No. 1-6/3A, 3B, 3/C, Nizampet To Bachupally Road, Nizampet, Hyderabad - 500072. Beside More Super Market And Nayara Petrol Bunk.

BOYS CAMPUS :- Plot No.87, Vahini Nivas, Matrusri Nagar, Miyapur, Hyderabad - 500049

BOYS CAMPUS :- Plot No -222/B, Gate No.1, Opp. ENT Hospital, Mathrusri Nagar, Miyapur, Hyderabad.

8977548407 / 8977548408 / 8977548409 / 8977548426

**LONG TERM COACHING
1ST BATCH FOR NEET - 2024
STARTS ON 14-06-2023**



info@dracademy.co.in

https://dracademy.co.in