

Discover the Star within you and Get Rewarded

Paper Code: 02

CAREER POINT STAR

Scholastic Test for Analysis and Reward

CLASS - 11th (PCB)

(Class 11th Studying Students)

Duration: 2:00 hours

Maximum marks: 360

Instructions to Candidates

- CP Star Test paper consists of total 90 questions and has been divided in three sections as follows:

a. Physics	25 Questions	Que. No. 01 to 25
b. Chemistry	25 Questions	Que. No. 26 to 50
c. Biology	40 Questions	Que. No. 51 to 90
- All questions are compulsory.
- All the answers will be encircled in OMR sheet which is being provided along with this paper.
- For every correct answer marked by you, **4** marks will be allotted.
- For every incorrect answer marked by you, **1** marks will be deducted.
- Use of calculator is not permitted in any case.
- Any kind of malpractice will expel you from exam immediately.
- For any confusion please talk to the invigilator in the examination hall.
- For any kind of suggestions or complaints send Email at info@cpil.in



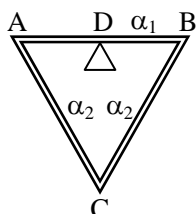
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निरीक्षक के अनुदेशों के बिना पेपर न खोलें

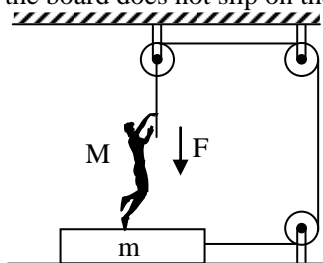
SECTION-a [PHYSICS]

Q.1 Three rods of equal length are joined to form an equilateral triangle ABC. D is the midpoint of AB. The coefficient of linear expansion is α_1 for AB, and α_2 for AC and BC. If the distance DC remains constant for small changes in temperature -



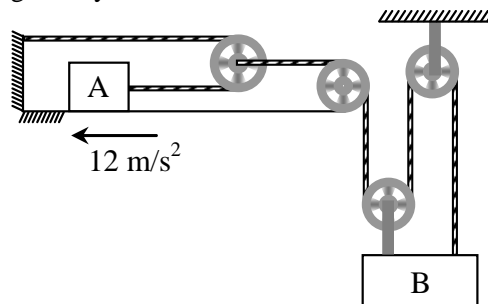
- (1) $\alpha_1 = \alpha_2$ (2) $\alpha_1 = 2\alpha_2$
 (3) $\alpha_1 = 4\alpha_2$ (4) $\alpha_1 = \frac{1}{2}\alpha_2$

Q.2 The friction coefficient between board and the floor in the figure is μ . The maximum force that the man can exert on the rope so that the board does not slip on the floor is



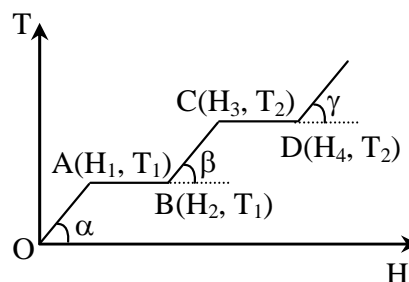
- (1) $\mu (M + m) g$ (2) $\frac{\mu(M + m)g}{1 - \mu}$
 (3) $\mu (M - m) g$ (4) $\frac{\mu(M + m)g}{1 + \mu}$

Q.3 For given system, the acceleration of B is given by-



- (1) 6 m/s^2 (2) 2 m/s^2
 (3) 4 m/s^2 (4) none of these

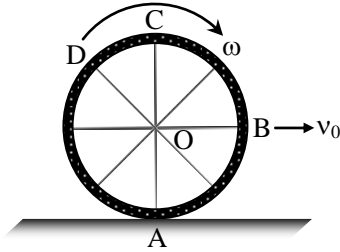
Q.4 The graph shows the variation of temperature (T) of one kilogram of a material with the heat (H) supplied to it. At O, the substance is in the solid state. From the graph, we can conclude that



- (1) T_2 is the melting point of the solid
 (2) BC represents the change of state from solid to liquid
 (3) $(H_2 - H_1)$ represents the latent of fusion of the substance
 (4) $(H_3 - H_1)$ represents the latent heat of vaporization of the liquid

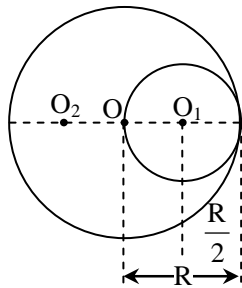
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- Q.5** Consider a bicycle wheel rolling without slipping on a rough level road at a linear speed as shown in figure. Then –



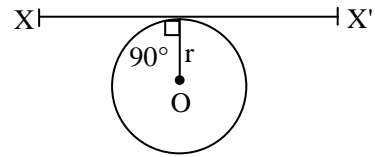
- (a) the speed of the particle A is zero
 (b) the speed of B, C and D are all equal to v_0
 (c) the speed of C is $2v_0$
 (d) the speed of B is greater than the speed of O
 (1) a, b (2) b, c (3) c, d (4) a, c

- Q.6** A spherical hollow is made in a lead sphere of radius R, such that its surface touches the outside surface of lead sphere and passes through the centre. What is the shift in the centre of mass of lead sphere due to the hollowing –



- (1) $\frac{R}{7}$ (2) $\frac{R}{14}$ (3) $\frac{R}{2}$ (4) R

- Q.7** A thin wire of length ℓ and uniform linear mass density ρ is bent into a circular loop with centre O and radius r as shown in figure. The moment of inertia of the loop about the axis XX' is-



- (1) $\frac{3\rho\ell^3}{8\pi^2}$ (2) $\frac{\rho\ell^3}{16\pi^2}$ (3) $\frac{3\rho\ell^3}{8\pi^2 r}$ (4) $\frac{\rho\ell^3}{8\pi^2 r}$

- Q.8** The velocity of a car is given by $v = (10 \text{ m/s}^2)t - (5 \text{ m/s}^3)t^2$. Initially car at $x = 0$ at $t = 0$. Time taken by the car to reach its maximum positive x-coordinates is –
 (1) 0 s (2) 1 s (3) 2 s (4) 1.5 s

- Q.9** The pitch of a screw gauge is 1 mm and there are 100 division on its circular scale. When nothing is put between its jaw, the zero of the circular scale lies 4 division below the reference line. When a steel wire is placed between the jaws, two main scale divisions are clearly visible and 67 divisions on the circular scale are observed. The diameter of the wire is-
 (1) 2.71 mm (2) 2.67 mm
 (3) 2.63 mm (4) 2.65 mm

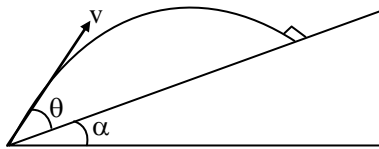
- Q.10** If the volume of a gas is doubled at constant pressure, the average translational kinetic energy of its molecules will-
 (1) be doubled
 (2) remain the same
 (3) increase by a factor $\sqrt{2}$
 (4) become four times

Space for rough work

Q.11 In a simple pendulum, the breaking strength of the string is double the weight of the bob. The bob is released from rest when the string is horizontal. The string breaks when it makes an angle θ with the vertical-

- (1) $\theta = \cos^{-1}(1/3)$ (2) $\theta = 60^\circ$
 (3) $\theta = \cos^{-1}(2/3)$ (4) $\theta = 0^\circ$

Q.12 A baseball is projected with a velocity v making an angle θ with the incline of inclination angle α as shown in figure. Find the condition that the ball hits the incline at right angle.



- (1) $\cot \theta = 2 \tan \alpha$ (2) $\sin \theta = \cos \alpha$
 (3) $\tan \theta = \sin \alpha$ (4) $\cot \theta = \tan \alpha$

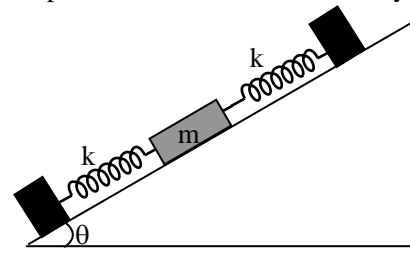
Q.13 A ball of mass m is fired vertically upwards from the surface of the earth with velocity nv_e , where v_e is the escape velocity and $n < 1$. Neglecting air resistance, to what height will the ball rise? Take radius of the earth as R :

- (1) R/n^2 (2) $R/(1 - n^2)$
 (3) $Rn^2 / (1 - n^2)$ (4) Rn^2

Q.14 A cubical vessel open from top of side L is filled with a liquid of density ρ then the torque of hydrostatic force on a side wall about an axis passing through one of bottom edges is -

- (1) $\frac{\rho g L^4}{4}$ (2) $\frac{\rho g L^4}{6}$ (3) $\frac{2\rho g L^4}{3}$ (4) $\frac{\rho g L^4}{3}$

Q.15 On a smooth inclined plane, a body of mass m is attached between two massless springs. The other ends of the springs are fixed to firm supports. If each spring has force constant k , the period of oscillation of the body is :



- (1) $2\pi\sqrt{\frac{m}{2k}}$ (2) $2\pi\sqrt{\frac{2m}{k}}$
 (3) $2\pi\sqrt{\frac{mg \sin \theta}{2k}}$ (4) $2\pi\sqrt{\frac{2mg \sin \theta}{k}}$

Q.16 The temperature of a hypothetical gas increases to $\sqrt{2}$ times when compressed adiabatically to half the volume. Its equation can be written as -

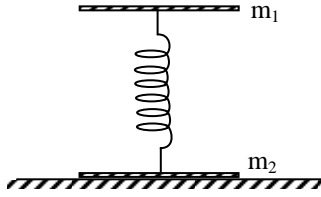
- (1) $PV^{3/2} = \text{constant}$ (2) $PV^{5/2} = \text{constant}$
 (3) $PV^{7/3} = \text{constant}$ (4) $PV^{4/3} = \text{constant}$

Q.17 The highest temperature of the gas, attained if the pressure of an ideal gas varies according to the law $P = P_0 - aV^2$, where P_0 and a are constants, is -

- (1) $T_{\max} = \frac{2P_0}{2nR} \left(\frac{P_0}{3a}\right)^{1/2}$
 (2) $T_{\max} = \frac{2}{3} \frac{P_0}{nR} \left(\frac{P_0}{3a}\right)^{1/2}$
 (3) $T_{\max} = \frac{P_0}{3nR} \left(\frac{P_0}{3a}\right)^{1/2}$
 (4) none of these

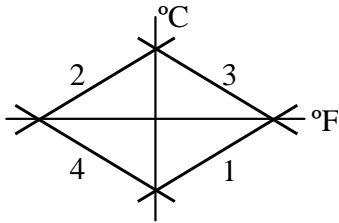
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Q.18 Two plates whose masses are m_1 and m_2 respectively are connected by a massless spring as shown. The force to be applied on the upper plate for it to raise the lower one when this force is removed is-



- (1) $F = m_1 g$. (2) $F = m_2 g$.
 (3) $F < (m_1 - m_2) g$. (4) $F > (m_1 + m_2)g$

Q.19 Which of the curves in figure represents the relation between Celsius and Fahrenheit temperature -



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

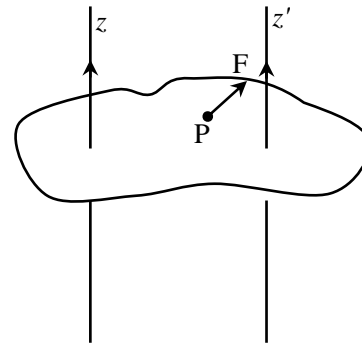
Q.20 The position vector of a particle is $\vec{r} = a [\cos \omega t \hat{i} + \sin \omega t \hat{j}]$. The velocity of the particle is

- (1) parallel to position vector
 (2) directed towards origin
 (3) directed away from origin
 (4) perpendicular to position vector

Q.21 A radioactive nucleus initially at rest it decays by emitting an electron and neutron at right angles to one another. The momentum of the electron is 3.2×10^{-23} kg m/s and the momentum of the neutron is 6.4×10^{-23} kg m/s. The angle of the recoiling neutron nucleus with the direction of the electron motion is -

- (1) $\pi - \tan^{-1}(2)$ (2) $\tan^{-1}(2)$
 (3) $\tan^{-1}(0.5)$ (4) $\frac{\pi}{2} + \tan^{-1}(2)$

Q.22 Figure shows a lamina in x - y plane. Two axes z and z' pass perpendicular to its plane. A force \mathbf{F} acts in the plane of lamina at point P as shown. Which of the following are true? (The point P is closer to z' -axis than the z -axis.)



- (1) Torque τ caused by \mathbf{F} about z -axis is along $-\hat{k}$
 (2) Torque τ' caused by \mathbf{F} about z' axis is along $-\hat{k}$
 (3) Total torque is given by $\tau = \tau + \tau'$.
 (4) Total torque is given by $\tau = \tau - \tau'$.

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SECTION-b [CHEMISTRY]

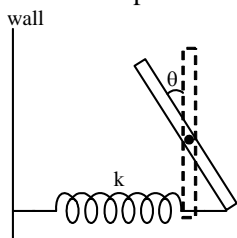
Q.23 A particle of mass m is moving in a circular path of constant radius r such that its centripetal acceleration a_c is varying with time as $a_c = k^2 r t^4$, where k is a constant. The power delivered to the particle by the forces acting on it is -

- (1) 0 (2) $mk^2 r^2 t^2$
 (3) $\frac{1}{3} mk^2 r^2 t^2$ (4) $2mk^2 r^2 t^3$

Q.24 A body of density d and volume V floats with volume V_1 of its total volume V immersed in a liquid of density d_1 and the rest of the volume V_2 immersed in another liquid of density d_2 ($< d_1$). The volume V_1 immersed in liquid of density d_1 is -

- (1) $\left(\frac{d-d_2}{d_1-d_2}\right)V$ (2) $\left(\frac{d+d_2}{d_1+d_2}\right)V$
 (3) $\left(\frac{d_1-d_2}{d_1}\right)V$ (4) $\frac{d_1}{d_2} V$

Q.25 A uniform rod of length l and mass m is fixed at the centre. A spring of spring constant k is connected to rod and wall as shown in figure. The rod is displaced by small angle θ and released. Find time period of oscillation.



- (1) $2\pi\sqrt{\frac{m}{k}}$ (2) $2\pi\sqrt{\frac{m}{2k}}$
 (3) $2\pi\sqrt{\frac{3m}{k}}$ (4) $2\pi\sqrt{\frac{m}{3k}}$

Q.26 The ratio of pH of 0.05 M and 0.005 M H_2SO_4 solutions will be -

- (1) 2 : 1 (2) 1 : 2
 (3) 1 : 1.5 (4) 1.5 : 1

Q.27 A buffer that is a mixture of acetic acid ($K_a = 2 \times 10^{-5}$) and potassium acetate has

pH = 5.18. The $\frac{[CH_3COO^-]}{[CH_3COOH]}$ ratio in this

buffer is approx -

- (1) 1 : 1 (2) 3 : 1
 (3) 5 : 1 (4) 1 : 3

Q.28 $M(OH)_x$ has a K_{sp} of 4×10^{-9} and its solubility is 10^{-3} M. The value of x is :

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

Q.29 What is the conjugate acid of HPO_4^{2-} ?

- (1) H_3PO_4 (2) $H_2PO_4^-$
 (3) H_3O^+ (4) PO_4^{3-}

Q.30 At temperature, T , a compound $AB_{2(g)}$ dissociates according to the reaction

$2AB_{2(g)} \rightleftharpoons 2AB_{(g)} + B_{2(g)}$ with a degree of dissociation x , which is small compared with unity. The expression for K_p , in terms of x and the total pressure, P is :

- (1) $\frac{Px^3}{2}$ (2) $\frac{Px^2}{3}$ (3) $\frac{Px^3}{3}$ (4) $\frac{Px^2}{2}$

Space for rough work

Q.31 The value of K_c at 721 K temperature for following reaction is 50.
 $N_2(g) + O_2(g) \rightleftharpoons 2NO(g)$ if equilibrium concentration of N_2 and O_2 is 0.5 M then value of K_p is -

- (1) 0.02 (2) 0.2 (3) 50.0 (4) $\frac{50}{RT}$

Q.32 The equilibrium constant for equilibria,
 $SO_2(g) + \frac{1}{2} O_2(g) \rightleftharpoons SO_3(g)$ and
 $2SO_3(g) \rightleftharpoons 2SO_2(g) + O_2(g)$ are K_1 and K_2 respectively. Then -

- (1) $K_2 = K_1$ (2) $K_2 = K_1^2$
 (3) $K_2 = 1/K_1$ (4) $K_2 = 1/K_1^2$

Q.33 Which oxide of nitrogen is the most stable :

- (1) $2NO_{2(g)} \rightleftharpoons N_{2(g)} + 2O_{2(g)}$;
 $K = 6.7 \times 10^{16} \text{ mol litre}^{-1}$
 (2) $2NO_{(g)} \rightleftharpoons N_{2(g)} + O_{2(g)}$;
 $K = 2.2 \times 10^{30} \text{ mol litre}^{-1}$
 (3) $2N_2O_{5(g)} \rightleftharpoons 2N_{2(g)} + 5O_{2(g)}$;
 $K = 1.2 \times 10^{34} \text{ mol litre}^{-1}$
 (4) $2N_2O_{(g)} \rightleftharpoons 2N_{2(g)} + O_{2(g)}$;
 $K = 3.5 \times 10^{33} \text{ mol litre}^{-1}$

Q.34 The relative rates of effusion of O_2 to CH_4 through a container containing O_2 and CH_4 in 3 : 2 mass ratio will be -

- (1) $\frac{3\sqrt{2}}{4}$ (2) $\frac{3}{4\sqrt{2}}$
 (3) $\frac{3}{2\sqrt{2}}$ (4) none of these

Q.35 Equation for Boyle's law is

- (1) $\frac{d^2P}{P} = -\frac{dV}{dT}$ (2) $\frac{d^2P}{P} = \frac{+d^2V}{P}$
 (3) $\frac{-dP}{dV} = \frac{K}{V^2}$ (4) $\frac{dP}{P} = \frac{+dV}{V}$

Q.36 What is the total pressure in 10 litre flask at 27°C of a sample of gas that contain 6 gram of hydrogen, 15.2 gram of N_2 and 16.8 gram of helium -

- (1) 1.91 atm (2) 2.46 atm
 (3) 5.89 atm (4) 19.1 atm

Q.37 The number of spectral lines produced according to Bohr's concept when one electron jumps from 5th to 2nd shell are -

- (1) 6 (2) 8
 (3) 10 (4) 12

Q.38 The K.E. of electron in 2nd orbit of Li^{+2} ion -

- (1) - 30.6 eV (2) + 30.6 eV
 (3) +13.6 eV (4) +27.4 eV

Q.39 The number of radial nodes of 3s and 2p-orbitals are respectively :

- (1) 2, 0 (2) 0, 2
 (3) 1, 2 (4) 2, 1

Q.40 Maximum value (n + l + m) for unpaired electrons in second excited state of chlorine $_{17}Cl$ is :

- (1) 28 (2) 25 (3) 20 (4) 30

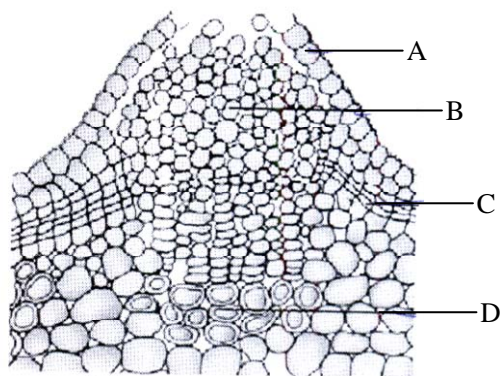
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- Q.41** The energies E_1 and E_2 for two radiations are 2.5 eV and 5.0 eV respectively. The relation between their wavelengths i.e., λ_1 and λ_2 will be -
- (1) $\lambda_1 = \frac{1}{2} \lambda_2$ (2) $\lambda_1 = \lambda_2$
 (3) $\lambda_1 = 2\lambda_2$ (4) $\lambda_1 = 4\lambda_2$
- Q.42** The electronic configuration of few elements are given below. Arrange them in correct order of their electron affinity -
- I. $1s^2 2s^2 2p^5$ II. $1s^2 2s^2 2p^6 3s^2 3p^5$
 III. $1s^2 2s^2 2p^4$ IV. $1s^2 2s^2 2p^6 3s^2 3p^4$
- (1) I < II < III < IV (2) I < III < II < IV
 (3) II > I > IV > III (4) II > I > III > IV
- Q.43** The correct order of radii is -
- (1) N < Be < B
 (2) $F^- < O^{2-} < N^{3-}$
 (3) Na < Li < K
 (4) $Fe^{3+} < Fe^{2+} < Fe^{4+}$
- Q.44** Which species has the maximum ionic radius -
 (1) Na^+ (2) O^{2-} (3) F^- (4) Mg^{2+}
- Q.45** Select correct statements about $NO[BF_4]$
- (a) It has 5σ and 2π bonds
 (b) Nitrogen-oxygen bond length is higher than nitric oxide (NO)
 (c) It has diamagnetic species
 (d) B-F bond length in this compounds is lower than in BF_3
- (1) a, c (2) a, c, d
 (3) a, b, c (4) b, c, d
- Q.46** Among LiCl, $BeCl_2$, BCl_3 and CCl_4 , the covalent bond character follows the order-
- (1) $LiCl < BeCl_2 > BCl_3 > CCl_4$
 (2) $LiCl > BeCl_2 < BCl_3 < CCl_4$
 (3) $LiCl < BeCl_2 < BCl_3 < CCl_4$
 (4) $LiCl > BeCl_2 > BCl_3 > CCl_4$
- Q.47** Which of the following two are isostructural ?
- (1) XeF_2, IF_2^- (2) NH_3, BF_3
 (3) CO_3^{2-}, SO_3^{2-} (4) PCl_5, ICl_5
- Q.48** The correct order of increasing C—O bond length of CO, CO_3^{2-}, CO_2 is -
- (1) $CO_3^{2-} < CO_2 < CO$
 (2) $CO_2 < CO_3^{2-} < CO$
 (3) $CO < CO_3^{2-} < CO_2$
 (4) $CO < CO_2 < CO_3^{2-}$
- Q.49** Number of electrons present in 3.6 mg of NH_4^+ are:
- (1) 1.2×10^{21} (2) 1.2×10^{20}
 (3) 1.2×10^{22} (4) 2×10^{-3}
- Q.50** 1.5 g of a divalent metal displaced 4 g of copper (at. Wt. = 64) from a solution of copper sulphate. The atomic weight of the metal is -
- (1) 12 (2) 24
 (3) 48 (4) 6

Space for rough work

SECTION-C [BIOLOGY]

Q.51 Study the following diagram carefully and identify the structure responsible for formation of lenticel



- (1) B - cork cambium
- (2) A - epidermis
- (3) C - cork cambium
- (4) C - complementary cell

Q.52 Age of tree can be calculated by its -

- (1) Height
- (2) Number of branches
- (3) Number of annual ring
- (4) Girth

Q.53 Match column I and Column II and choose the correct set .

	Column-I		Column-II
(A)	Cuticle	(I)	Guard cells
(B)	Bulliform cell	(II)	Single layer
(C)	Stomata	(III)	Waxy layer
(D)	Epidermis	(IV)	empty colourless cell

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

Q.54 Which of the following is true regarding the figure given below ?



- (1) It belongs to ascomycetes
- (2) Asexual spore are conidia
- (3) It is Morchella
- (4) None of the above

Q.55 Least common character are observed in members of

- | | |
|-------------|-------------|
| (1) Kingdom | (2) Family |
| (3) Genus | (4) Species |

Q.56 Members of the kingdom protista differ from members of the kingdom monera mainly due to the presence of -

- (1) RNA
- (2) DNA
- (3) Cell wall
- (4) Membrane-bound nucleus

Space for rough work

Q.57 Nitrogen fixation in blue green algae occurs in -
 (1) Heterocyst
 (2) Hormogonia
 (3) Gelatinous sheath
 (4) All

Q.58 Methanogens are -
 (1) Obligate anaerobes
 (2) Found in saline marshes
 (3) CO₂ oxidizing forms
 (4) Facultative anaerobes

Q.59 Woese found that the ___ kingdoms naturally cluster into ___ main categories. He called those categories as ___
 (1) 6, 3 domains (2) 4, 6, progenote
 (3) 5, 4, archea (4) 6, 4, eukarya

Q.60 Photosynthetic pigments chlorophyll a and chlorophyll c are common in
 (1) Cyanobacteria and purple sulphur bacteria
 (2) Diatoms and euglenoids
 (3) Dinoflagellates and diatoms
 (4) Pyrrophytes and euglenophytes

Q.61 Two species can be said to be reproductively isolated if they are
 (1) Interfertile
 (2) Not interfertile
 (3) Do not grow together in a common habitat
 (4) Growing together in a common habitat

Q.62 Two kingdom classification was given by -
 (1) Heackle (2) Linnaeus
 (3) Copeland (4) Whittakar

Q.63 Red tide occurs due to -
 (1) Gonyaulax (2) Trichodesmium
 (3) (1) & (2) both (4) Red algae

Q.64 Which of the following is partially or completely heterotrophs ?
 (1) Rhizopus (2) Cuscuta
 (3) Venus fly trap (4) All of the above

Q.65 Select the incorrect match w.r.t. type of sexual reproduction in fungi -
 (1) Gametangial contact – Oomycetes
 (2) Gametangial copulation – Zygomycetes
 (3) Spermatization – Deuteromycetes
 (4) Somatogamy – Basidiomycetes

Q.66 Choose the correct description of the flower depicted in the floral diagram given below-



- (1) United valvate sepal, united valvate petals, free epiphyllous stamen, unilocular ovary with parietal placentation
- (2) United valvate sepal, united valvate petals, free epiphyllous stamen, bilocular ovary with parietal placentation
- (3) United valvate sepal, united valvate petals, free epipetalous stamen, bilocular ovary with axile placentation
- (4) None of the above

Space for rough work

- Q.67** Phyllode is commonly observed in -
 (1) Australian acacia
 (2) Cactus
 (3) Ruscus
 (4) (2) & (3) both

- Q.68** Cylindrical photosynthetic stem is present in -
 (1) Opuntia (2) Euphorbia
 (3) Acacia (4) Asparagus

- Q.69** Ovule are borne on central axis and true septum is present in -
 (1) Axile placentation
 (2) Parietal placentation
 (3) Free central placentation
 (4) Superficial placentation

- Q.70** What type of vegetative propagule is shown in figure given below -



- (1) Tuber (2) Rhizome
 (3) Sucker (4) Stolon

- Q.71** which locomotion is most primitive and oldest type of locomotion.
 (1) ciliated (2) flagellated
 (3) muscles (4) amoeboid

- Q.72** Entamoeba histolytica Parasite is
 (1) Facultative anaerobes
 (2) obligatory anaerobes
 (3) Facultative aerobes
 (4) obligatory aerobes

- Q.73** First Complete alimentary canal is feature of -
 (1) Aschahelminthes (2) Annelides
 (3) Arthropods (4) ctenophora

- Q.74** Intercalated disc is feature of -
 (1) Voluntary muscle (2) Smooth muscle
 (3) cardiac muscle (4) 2 & 3

- Q.75** loose cells aggregates are feature of -
 (1) Protozoan (2) coelenterata
 (3) ctenophora (4) Porifera

- Q.76** Maximum mixing of blood occurs in which creature's heart -
 (1) Frog (2) Crocodile
 (3) Cockroach (4) Scoliodon

- Q.77** The Triploblastic animal are secondary radially Symmetrical -
 (1) Molluscans (2) Echinodermates
 (3) Urochordates (4) Cyclostomates

- Q.78** The causative agent of peptic ulcers mainly is -
 (1) Entamoeba histolytica
 (2) E. coli
 (3) Helicobacter pylori
 (4) Ascaris lumbricoides

Space for rough work

- Q.79** The main function of Buccal cavity
 (1) Mastication (2) deglutition
 (3) absorption (4) 1 & 2
- Q.80** Counter current mechanism help in –
 (1) Formation of concentrated urine by Henle's loop
 (2) Oxygenation of blood in gills of fishes
 (3) both 1 & 2
 (4) Formation of concentrated urine & conduction of nerve Impulse
- Q.81** The exchange of gases take place from alveoli & there duct, these part are called
 (1) conducting part (2) respiratory part
 (3) exchange part (4) 2 & 3
- Q.82** Which disease is odd one
 (1) Emphysema (2) Asthema
 (3) Chronic bronchitis (4) Pneumocomiosis
- Q.83** Warning signal of deprivation of blood supply to heart muscle leads to chest pain
 (1) heart attack (2) heart failure
 (3) cardiac arrest (4) Angina pectoris
- Q.84** How many statements are correct regarding TMAO -
 (a) Molluscan & marine fishes excretory product
 (b) Mainly present in cartilagenous fishes
 (c) Anti freezing protein help in formation of
 (d) Protect from the damaging effect of urea
 (1) a, b, c (2) b, c, d
 (3) Only c, d (4) All a, b, c & d
- Q.85** It's collection of heart muscle cells specialized for electrical conduction that transmits the electrical impulses from A.V. node to the wall of ventricle
 (1) Bundle of His
 (2) Purkinje Fiber
 (3) Inter nodel Fiber
 (4) Chordae Tendinae
- Q.86** In counter current mechanism, counter current multiplier is ----- & counter current exchanger is ----- respectively
 (1) Henle's loop & vasa recta
 (2) vasa recta & Henle's loop
 (3) PCT & DCT
 (4) Henle's loop & DCT
- Q.87** Which statement is incorrect regardely cockroach
 (1) The ring of 6-8 blind tubules called hepatic & gastric caecae is present at the junction of foregut & midgut
 (2) At the junction of midgut & hind gut 100-150 yellow coloured this filamentous structure called malpighian tubule are present.
 (3) The crop is followed by gizzard or proventricular having outer thick longitudinal layers
 (4) The haemolymph is composed of colourless plasma & haemocytes

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Q.88 In cockroach which structure is formed by fusion of six segments & show great mobility in all direction due to flexible structure
(1) Head (2) Abdomen
(3) Thorax (4) Neck

Q.89 In pheretima the intestine in between 22-26 segments is the presence of internal medial fold of dorsal wall called -
(1) Intestinal caecae
(2) Typhlosole
(3) Pre typhlosole part of intestine
(4) Post typhlosole part of intestine

Q.90 In frog which respiration always occurs whether the frog passes from hibernation, aestivation, remain on submerged & terrestrial environment
(1) Buccal pharygeal respiration
(2) Cutaneous respiration
(3) Pulmonary respiration
(4) 1 & 2 both

Space for rough work

