26 Apr 2026 Q001 Ans 4

1. A bead is arranged to move with constant speed around a loop that lies in a vertical plane. The magnitude of the net force on the bead is

(1) maximum at the bottom

(2) maximum at the top

(3) maximum at the side points

(4) the same at all points

2. A projectile is given an initial velocity of $2\hat{i} + 2\hat{j}$

26 Apr 2026 Q005 Ans 2

5. If pressure at half the depth of a lake is equal to 2/3 pressure at the bottom of the lake then what is the depth of the lake

(1) 10 m (2) 20 m

(3) 60 m (4) 30 m

26 Apr 2026 Q006 Ans 1

6. A body takes $1\frac{1}{3}$ times as much time to slide down a rough inclined plane as it takes to slide down an identical but smooth inclined plane. If the angle of inclined plane is 45°, the coefficient of friction is :-

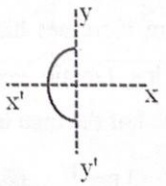
(1) $\frac{7}{16}$ (2) $\frac{9}{16}$ (3) $\frac{7}{9}$ (4) $\frac{3}{4}$

7. There are two planets and the ratio of radius of

26 Apr 2026 Q010 Ans 4

(3) $\sqrt{(\ell^2 - 1)/g}$ (4) $g/\sqrt{\ell^2 + 1}$

10. A thin wire of length ℓ and mass m is bent in the form of a semicircle as shown. Its moment of inertia about an axis joining its free ends will be



(1) $m\ell^2$ (2) Zero (3) $\frac{m\ell^2}{\pi^2}$ (4) $\frac{m\ell^2}{2\pi^2}$

26 Apr 2026 Q015 Ans 3

15. Two vehicles moving on a horizontal road are stopped by same retarding force.

	Column-I		Column-II
(a)	When they have same K.E.	(P)	Faster body stop in larger distance
(b)	When they have different masses but same velocity	(Q)	Lighter body stops in larger distance.
(c)	When both have same momentum	(R)	heavier body stops in larger distance.
(d)	When both have same mass but different velocities	(S)	stopped in same distance.

(1) a - P, b - Q, c - R, d - S

(2) a - Q, b - P, c - S, d - R

(3) a - S, b - R, c - Q, d - P

(4) a - R, b - S, c - Q, d - P

26 Apr 2026 Q018 Ans 3

18. Consider an ideal gas confined in an isolated closed chamber. As the gas undergoes an adiabatic expansion, the average time of collision between molecules increases as V^q, where V is the volume of the gas. The value of q is $\left(\gamma = \frac{C_P}{C_V}\right)$:-

(1) $\frac{3\gamma + 5}{6}$ (2) $\frac{3\gamma - 5}{6}$

(3) $\frac{\gamma + 1}{2}$ (4) $\frac{\gamma - 1}{2}$

26 Apr 2026 Q019 Ans 1

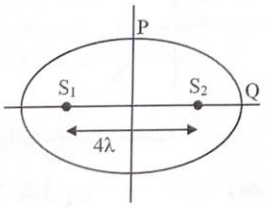
19. If density of earth becomes twice and its radius becomes half, then duration of day on earth will become :-

(1) 1.5 hr (2) 8 hr

(3) 48 hr (4) 72 hr

26 Apr 2026 Q020 Ans 1

20. S_1, S_2 are two coherent sources (having initial phase difference zero) of sound located along x-axis separated by 4λ where λ is wavelength of sound emitted by them. Number of maxima located on the elliptical boundary around it will be :
[S_1 and S_2 are assumed to be at focus of ellipse]



(1) 16 (2) 12 (3) 8 (4) 4

24.

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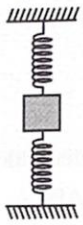
0999DMD363101250017

26 Apr 2026 Q023 Ans 1

23. A block tied between two springs is in equilibrium. If upper spring is cut then the acceleration of the block just after cut is 6 m/s^2 downwards. Now, if instead of upper spring, lower spring is being cut then the acceleration of the block just after the cut will be :-

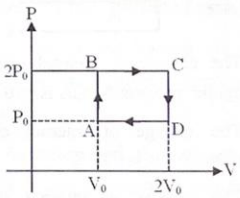


(1) 4 m/s^2 downwards (2) 6 m/s^2 downwards

(3) 4 m/s^2 upwards (4) 6 m/s^2 upwards

26 Apr 2026 Q024 Ans 2

24. The shown PV diagram represents the thermodynamic cycle of an engine, operating with an ideal monoatomic gas. The amount of heat, extracted from the source in a single cycle is :



(1) P_0V_0 (2) $\left(\frac{13}{2}\right)P_0V_0$

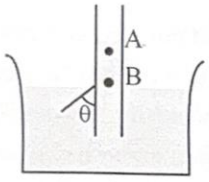
(3) $\left(\frac{11}{2}\right)P_0V_0$ (4) $4P_0V_0$

RSE

26-04-2026

26 Apr 2026 Q026 Ans 1

26. In a capillary tube having radius r, liquid reaches in equilibrium as shown in figure. If surface tension of the liquid is T, angle of contact with capillary θ and density of liquid is ρ then pressure difference between point A and B is :



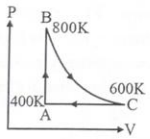
(1) $\left(\frac{2T}{r}\right)\cos\theta$ (2) $\frac{T}{r\cos\theta}$

(3) $\frac{2T}{r\cos\theta}$ (4) $\left(\frac{4T}{r}\right)\cos\theta$

27. One mole of diatomic ideal gas undergoes a

26 Apr 2026 Q027 Ans 4

27. One mole of diatomic ideal gas undergoes a cyclic process ABCA as shown in figure. The process BC is adiabatic. The temperatures at A, B and C are 400 K, 800 K and 600 K respectively. Choose the correct statement :



(1) The change in internal energy in whole cyclic process ABCA is 250 R.

(2) The change in internal energy in the process CA is 700 R

(3) The change in internal energy in the process AB is – 350 R

(4) The change in internal energy in the process BC is – 500 R

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26 Apr 2026 Q029 Ans 1

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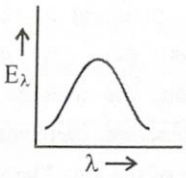
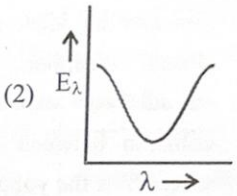
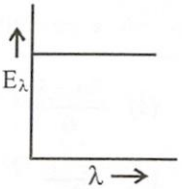
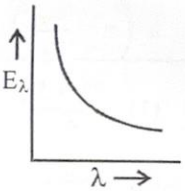
29. Which of the following curves represents spectral distribution of energy of black body radiation?

(1) 

(2) 

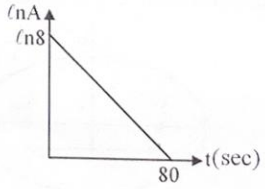
(3) 

(4) 

30. If the ratio of amplitudes of two waves at any

26 Apr 2026 Q031 Ans 2

31. In study of damped oscillation of simple pendulum, if A denotes amplitude and t time, the graph between ℓn A versus t is as as shown in figure. The time taken, in which amplitude reduces to 2 cm from initial amplitude of 8 cm is nearest to :



(1) 40 s (2) 53 s

(3) 61 s (4) 81 s

3 COURSE

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26 Apr 2026 Q036 Ans 2

36. A steel test wire of length 1.50 m and diameter 0.50 mm is used in Searle's apparatus. When the load in test wire is increased by 1.00 kg, the micrometer of least count 0.01 mm has to be adjusted by turning its screw by 36 circular divisions, to bring the spirit level back to horizonal position. Taking g = 9.8 ms^{-2}, the Youngs modulus of wire is nearly:

(1) 1.0×10^{11} Pa

(2) 2.0×10^{11} Pa

(3) 3.0×10^{11} Pa

(4) 5.0×10^{11} Pa

39.

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0999DMD363101250017

26 Apr 2026 Q038 Ans 1

38. If water is filled in a tube as shown & it is converted into the ice, then the position of centre of mass :

(1) Shift upward

(2) Shift downward

(3) Remain same

(4) Can't say

26 Apr 2026 Q047 Ans 2

47. In an atom an electron is moving with a speed of 600 m/s with uncertainty of 0.05%. Then uncertainty in position of electron can be located as : (h = 6.6×10^{-34} Kg $m^2 s^{-1}$, mass of electron = 9.1×10^{-31} Kg)

(1) 5.10×10^{-3} m (2) 1.92×10^{-4} m

(3) 3.84×10^{-3} m (4) 2.52×10^{-4} m

51.

26 Apr 2026 Q053 Ans 2

53. **Statement-I:** The reaction $3ClO^- \rightarrow ClO_3^- + 2Cl^-$ is an example of disproportionation reaction.

Statement-II: n-factor of reactant ClO^- is 4.

(1) Both Statement-I & Statement-II are correct.

(2) Statement-I is correct & Statement-II is incorrect.

(3) Statement-I is incorrect & Statement-II is correct.

(4) Both Statement-I & Statement-II are incorrect.

54. On addition of ammonium chloride to a solution of ammonium hydroxide :-

26 Apr 2026 Q056 Ans 4

56. Calculate the pH of solution if 0.2 M, 200 ml NH_4Cl is mixed with 0.1 M, 100 ml NaOH at 25°C [pK_b for NH_4OH is 4.75].

(1) 4.26 (2) 5.22 (3) 9.74 (4) 8.78

26 Apr 2026 Q057 Ans 3

57. 200 mL, $\frac{N}{20}$ HNO_3, 100 mL $\frac{N}{20}$ H_2SO_4, 300 mL $\frac{M}{30}$ HCl, 50 mL, 0.1M $Ba(OH)_2$ and 250 mL $\frac{M}{10}$ NaCl, solutions were mixed then value of pH of resultant solution is :-

(1) 1.65 (2) 2.0 (3) 1.78 (4) 0.16

26 Apr 2026 Q061 Ans 4

61. Which group of elements follow triad rule?

(1) H, F, Cl (2) Li, Na, K

(3) Cl, Br, I (4) All of the above

62. In 6^{th} period of the periodic table, electronic

26 Apr 2026 Q064 Ans 1

64. Electronic configurations are :-

$A = 1s^2 2s^2 2p^1$, $B = 1s^2 2s^2 2p^6 3s^1 3p^2$,

$C = 1s^2 2s^1 2p^1$, $D = 1s^2 2s^2 2p^5 3s^1$

then which among these will belong to the same group in the periodic table ?

(1) A, B (2) A, C

(3) A, B, D (4) A, B, C

26 Apr 2026 Q065 Ans 2

(3) A, B, D (4) A, B, C

65. The correct increasing order of atomic radius of the following elements :-

(1) S < O < Se < C (2) O < C < S < Se

(3) O < S < Se < C (4) C < O < S < Se

66. Amongst the elements with following electronic

26 Apr 2026 Q069 Ans 4

69. (i) KCl or MgO (ii) LiF or LiBr

(iii) MgF_2 or NaCl

Select the compound from each pair with higher lattice energy :

(1) KCl, LiBr, MgF_2

(2) MgO, LiBr, MgF_2

(3) MgO, LiF, NaCl

(4) MgO, LiF, MgF_2

70. Which of the following compounds do not exist

26 Apr 2026 Q076 Ans 2

76. **Assertion :** Pyridine is more basic than aniline.
Reason : Pyridine have resonance.

(1) Both Assertion & Reason are True & the Reason is a correct explanation of the Assertion.

(2) Both Assertion & Reason are True but Reason is not a correct explanation of the Assertion.

(3) Assertion is True but the Reason is False.

(4) Both Assertion & Reason are False.

26 Apr 2026 Q079 Ans 4

79. Which of the following cannot act as electrophile?

(1) $:CCl_2$ (2) $\overset{\oplus}{N}O_2$

(3) CO_2 (4) $CH_2 = CH_2$

80. Arrange the following compound in the correct order of pK_a ?

COOH OH COOH OH

26 Apr 2026 Q114 Ans 1

114. Given below are two statements: one is labelled as **Assertion (A)** and the other is labelled as **Reason (R)**.

Assertion (A): The primary function of the Golgi apparatus is to package the materials made by the endoplasmic reticulum and deliver it to intracellular targets and outside the cell.

Reason (R): Vesicles containing materials made by the endoplasmic reticulum fuse with the cis face of the Golgi apparatus, and they are modified and released from the trans face of the Golgi apparatus.

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

(1) Both **A** and **R** are true and **R** is the correct explanation of **A**

(2) Both **A** and **R** are true but **R** is **not** the correct explanation of **A**

(3) **A** is true but **R** is false

(4) **A** is false but **R** is true

26 Apr 2026 Q127 Ans 2

127. Read the following statements with respect to light reaction :

(i) PS-I and H-carrier are related to cyclic electron transport chain.

(ii) Formation of $NADPH + H^+$ is related with the formation of proton gradient.

(iii) Movement of electrons in electron transport chain is coupled to the pumping of protons into the thylakoid lumen.

(iv) H-carrier is responsible for the creation of proton gradient across thylakoid membrane.

(v) The CF_0 unit of ATP synthase is associated with the breakdown of proton gradient.

How many of the above statements are correct ?

(1) Four (2) Five

(3) Two (4) Three

26 Apr 2026 Q128 Ans 4

128. Identify the incorrect statement with respect to light as a factor affecting photosynthesis–

(1) Light between 400-700 nm wavelength constitute the photosynthetically active radiation (PAR).

(2) Light saturation occurs at the 10 per cent of total sunlight available.

(3) Light is the limiting factor for plants in shade or in dense forests.

(4) Duration of light greatly affects the rate of

26 Apr 2026 Q145 Ans 4

145. **Assertion [A] :** Our heart consist of all 4 type of tissue i.e. epithelial, connective, muscular & neural tissue.

Reason [R] : Each organ in our body is made up of one or more type of tissues.

(1) A & R both are correct but R is not correct explanation of A.

(2) A is true but R is false.

(3) A is false but R is true.

(4) A & R both are correct and R is a correct explanation of A.

26 Apr 2026 Q150 Ans 4

(4) Assertion is false but Reason is true.

150. Which of the following is correctly matc regarding frog :

(1) Copulatory pad - Helps in insemination.

(2) Mesorchium - Single fold of peritoneum.

(3) Hind brain - Cerebrum and medulla oblongata.

(4) RBC - Biconvex and nucleated.

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26 Apr 2026 Q151 Ans 2

t 151. Which of the following statement is correct with respect to *Rana tigrina*?

(1) Muscular tongue is trilobed at tip and free from behind.

(2) Oesophagus is a short tube that open into the stomach.

(3) Tadpole larva of frog is with comparatively short alimentary canal than adult.

(4) Tail is present in adult frog.

26 Apr 2026 Q152 Ans 2

(4) Tail is present in adult frog.

152. How many of the following structures are given below help in excretion only in male cockroach? Malpighian tubules, Fat bodies, Nephrocytes, Uricoes glands.

(1) Two (2) One

(3) Four (4) Three

26 Apr 2026 Q153 Ans 3

(3) Four (4) Three

153. Choose correct statements about cockroach.

(a) Hind gut is broader than midgut

(b) Hind gut and fore gut is lined with cuticle

(c) Rectum opens out through cloaca

(d) Blood is colourless and also called as haemolymph

(1) (a), (c) and (d) (2) (a), (b) and (c)

(3) (a), (b) and (d) (4) Only (c)

26 Apr 2026 Q168 Ans 1

ANSWER 25

168.

	Column I		Column II
(1)	Corpus callosum	(i)	Thermoregulation
(2)	Thalamus	(ii)	Connects two cerebral hemispheres
(3)	Hypothalamus	(iii)	Memory
(4)	Association areas	(iv)	Major coordinating centre for sensory and motor signaling

170

(1) 1-ii, 2-iv, 3-i, 4-iii

(2) 1-ii, 2-iii, 3-i, 4-iv

(3) 1-i, 2-iv, 3-ii, 4-iii

(4) 1-i, 2-iii, 3-ii, 4-iv

12 Apr 2026 Q002 Ans 1

(4) None of these

2. A body of mass m = 3.513 kg is moving along the x-axis with a speed of 5.00 m/s. The magnitude of its momentum is :

(1) 17.6 kg ms^{-1} (2) 17.565 kg ms^{-1}

(3) 17.56 kg ms^{-1} (4) 17.57 kg ms^{-1}

3. A particle's position as a function of time is described as $y(t) = 2t^2 + 3t + 4$. What is the average

12 Apr 2026 Q004 Ans 2

(3) 9 m/s (4) 12 m/s

4. A ball is thrown upwards from the ground. It is at a height of 100 m in upward and downward journeys at times t_1 and t_2 respectively. If $g = 10\ m/s^2$, then t_1t_2 is equal to:

(1) 10 (2) 20 (3) 40 (4) 50

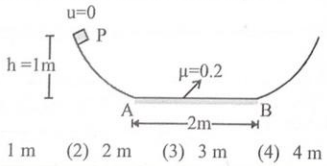
5. From an automatic gun a man fires 360 bullet per minute with a speed of 360 km/hr. If each weighs

8. A ball
velocity
the ball
(1) var
(2) cor
(3) car
(4) zer

12 Apr 2026 Q006 Ans 1

(1) 600W (2) 300W (3) 150W (4) 75W

6. The curved portions are smooth and horizontal surface is rough. The block is released from P. At what distance from A it will stop ?

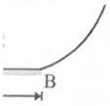


(1) 1 m (2) 2 m (3) 3 m (4) 4 m

9. A partic
another
Net forc
(1) $\frac{20}{9}$
(2) $\sqrt{6}$
(3) $\frac{\sqrt{8}}{3}$
(4) 10

12 Apr 2026 Q009 Ans 2

hr. If each weighs
:.
0W (4) 75W
th and horizontal
released from P.
stop ?



1 (4) 4 m

(4) zero

9. A particle of mass 1 kg has velocity $\vec{v}_1 = 2t\hat{i}$ and another particle of mass 2 kg has velocity $\vec{v}_2 = t^2\hat{j}$. Net force on centre of mass of system at t = 2 s is :

(1) $\frac{20}{9}$ unit

(2) $\sqrt{68}$ unit

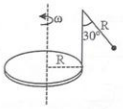
(3) $\frac{\sqrt{80}}{3}$ unit

(4) 10 unit

12 Apr 2026 Q011 Ans 4

(4) Center of mass continues to move along same parabolic path.

11 A disc of radius R has a light pole fixed perpendicular to the disc at the circumference which in turn has a pendulum of length R attached to its other end as shown in figure. The disc is rotated with a constant angular velocity ω. The string makes an angle 30° with the rod. Then the angular velocity ω of disc is :



(1) $\left(\frac{\sqrt{3}g}{R}\right)^{\frac{1}{2}}$

(2) $\left(\frac{\sqrt{3}g}{2R}\right)^{\frac{1}{2}}$

(3) $\left(\frac{g}{\sqrt{3}R}\right)^{\frac{1}{2}}$

(4) $\left(\frac{2g}{3\sqrt{3}R}\right)^{\frac{1}{2}}$

(4) Neither the of its orbit

14. Two satellites o same orbit of ra so as to rotate collide inelast wreckage, the system just after

(1) $-\frac{2GMm}{r}$

(3) $\frac{GMm}{2r}$

15. A mass m is pla sphere of mass I the gravitational

(1) $\frac{GMm}{R^2}$

(3) $\frac{GMm}{(R-r)^2}$

12 Apr 2026 Q012 Ans 3

ollowing a
fragments.
situation :

X

upwards.

12. A point moves along a circle with a speed v = 4t, the centripetal acceleration of the point at the instant it has covered $\frac{1}{5}$th fraction of the circle after the beginning of motion

(1) $\frac{4\pi}{5}\ m/s^2$ (2) $\frac{8\pi}{5}\ m/s^2$

(3) $\frac{16\pi}{5}\ m/s^2$ (4) $\frac{32\pi}{5}\ m/s^2$

13. The time period of an earth satellite in circular orbit is independent of:

12 Apr 2026 Q028 Ans 4

(4) $\frac{(\gamma-1)}{2R}Mv^2$ Kelvin

28. A container with insulating walls is divided in two equal parts by a partition fitted with a valve. One part is filled with an ideal gas at a pressure P and temperature T, whereas the other part is completely evacuated. If the valve is suddenly opened, the pressure and temperature of the gas will be :

(1) $\frac{P}{2}, \frac{T}{2}$ (2) P,T

(3) P, $\frac{T}{2}$ (4) $\frac{P}{2}$, T

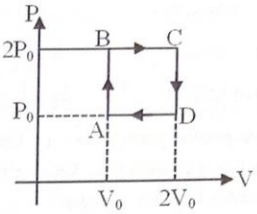
(2) −0.03 mm
(3) +0.05 mm
(4) −0.05 mm

31. A uniform met 48 cm. A 40 g mass at 78 cm should be place
(1) 12 cm
(2) 26 cm
(3) 53 cm
(4) 96 cm

12 Apr 2026 Q029 Ans 1

ıture T_1, T_2 .
lecules are
lecules are
no loss of
cture is :

29. Helium gas goes through a cycle ABCDA (consisting of two isochoric and isobaric lines) as shown in figure. Efficiency of the cycle is nearly :(Assume the gas to be close to ideal gas)



(1) 15.4 %
(2) 9.1 %
(3) 10.5 %
(4) 12.5 %

ı ideal gas

30. A screw gauge is used to measure thickness of thin sheet. Its pitch is 0.5 mm with 50 divisions

12 Apr 2026 Q030 Ans 4

(3) 10.5 %
(4) 12.5 %

ı ideal gas
fic heats γ.
ıly brought
st to the
ɔy :

30. A screw gauge is used to measure thickness of thin sheet. Its pitch is 0.5 mm with 50 divisions on its circular scale. When sheet is placed for thickness measurement, the readings are :
Main scale reading = 0 mm ;
circular scale = 25th division.
Now the sheet is folded 2 times and again, this folded sheet is placed for thickness measurement.
Now the readings are :
Main scale reading = 1 mm ;
circular scale reading = 15th division.
From above, zero error computed in instrument is

(1) +0.03 mm
(2) −0.03 mm
(3) +0.05 mm
(4) −0.05 mm

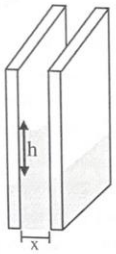
divided in
th a valve.
a pressure
ıer part is

31. A uniform meter scale of mass 100 g is pivoted at 48 cm. A 40 g mass is suspended at 3 cm and 50 g

12 Apr 2026 Q033 Ans 2

(3) 15.6 kcal
(4) 21.2 kcal

33. Two parallel glass plates are dipped partially in the liquid of density d, keeping them vertical. If distance between the plates is x, surface tension of liquid is T and angle of contact θ, then rise of liquid 'h' between plates due to capillary will be :



(1) $\frac{T\cos\theta}{xd}$
(2) $\frac{2T\cos\theta}{xdg}$
(3) $\frac{2T}{xdg\cos\theta}$
(4) $\frac{T\cos\theta}{xdg}$

34. A pendulum having bob of mass 100 g is made to oscillate with initial amplitude of 12 cm. Its

is :-
(1) M
(3) M

38. For v
which
displa

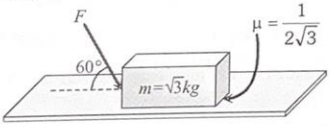
(1)

(2)

12 Apr 2026 Q041 Ans 1

(4) 0.7

41. What is the maximum value of the force F such that the block shown in the arrangement, does not move :



(1) 20 N
(2) 10 N
(3) 12 N
(4) 15 N

(1) 32π m/s
(2) 8π m/s
(3) 16π m/s
(4) 24π m/s

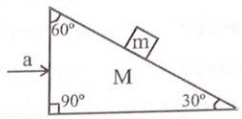
45. The tension of a
In order to keep
its length must b

(1) 30%
(2) 20%
(3) 69%
(4) $\sqrt{69\%}$

12 Apr 2026 Q042 Ans 1

ı is shown

42. A small block of mass m is placed on an inclined plane of mass M as shown in figure. What should be the acceleration 'a' given to the system so that the block does not slide on the inclined plane ?



(1) $\frac{g}{\sqrt{3}}$
(2) $\frac{2g}{\sqrt{3}}$
(3) $g\sqrt{3}$
(4) $\frac{\sqrt{3}}{2}g$

43. In a room, where the temperature is 30°C, a body cools from 61°C to 59°C in 4 minutes. The time

12 Apr 2026 Q044 Ans 3

(4) 8 min

44. Equation of standing wave is given by
$y = 8\sin\left[\frac{\pi}{24}x\right]\cos 4\pi t$
find out maximum velocity of a particle placed at x = 4m

(1) 32π m/s
(2) 8π m/s
(3) 16π m/s
(4) 24π m/s

ce F such
ıent, does

$\frac{1}{2\sqrt{3}}$

45. The tension of a stretched string is increased by 69%. In order to keep its frequency of vibration constant,

12 Apr 2026 Q046 Ans 3

Topic : FULL SYLLABUS

46. The separation energy of an electron present in 3rd excited state of H-atom :-

(1) 27.2 eV (2) 1.51 eV

(3) 0.85 eV (4) 13.6 eV

47. Which of the following statement is true :-

(a) 6 electrons present in Mg for which m = 0

(b) 6 electrons are present in one p-orbital

(c) Maximum 18 electrons are present in M-shell

(d) 3 electrons are present in phosphorous for

51. What

BaF_2

a solu

(1) 9

(3) 1

52. Given

MOH

of hy

(1) 5

12 Apr 2026 Q050 Ans 1

(3) 6.02×10^{22} (4) 3.01×10^{22}

50. 20.0 g of a magnesium carbonate sample decomposes on heating to given carbon dioxide and 8.0 g magnesium oxide. What will be the percentage purity of magnesium carbonate in the sample ?

$MgCO_3 \longrightarrow MgO + CO_2$

(1) 84 (2) 75

(3) 96 (4) 60

point o

(1) 5 -

(3) 5 -

55. Which of disp

(1) 2H

(2) Cl

(3) 2C

(4) HN

PHASE - MAJOR NURTURE TEST SERIES / JOINT PACKAGE COURSE

0999DMD363101250016

12 Apr 2026 Q053 Ans 3

ɔ c

ɪ

ıs, in which case

y low pressure &

$\Delta H° = 172.5$ kJ

; $\Delta H° = -21.7$ kJ

285 kJ

$° = -541$ kJ

air to form CO_2.

$_2$ introduced into

1×10^{23}

(3) 9,0.00% (4) 7,0.01%

53. Given below are two statements :

Statement-I : Solubility of AgBr decreases in presence of Ammonia.

Statement-II : AgBr form a complex $[Ag(NH_3)_2]^+$ in presence of Ammonia.

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

(1) Statement-I & statement-II are incorrect

(2) Statement-I & statement-II are correct

(3) Statement-I is incorrect but statement-II is correct

(4) Statement-I is correct but statement-II is incorrect

54. A weak acid of dissociation constant 10^{-5} is being titrated with aqueous NaOH solution. The pH at the

12 Apr 2026 Q055 Ans 3

rbonate sample

ı carbon dioxide

/hat will be the

carbonate in the

(3) $5 - \log 3$ (4) $5 - \log 6$

55. Which of the following reaction is not example of disproportionation

(1) $2H_2O_2 \longrightarrow 2H_2O + O_2$

(2) $Cl_2 + H_2O \longrightarrow HCl + HClO$

(3) $2Cu_2O \longrightarrow 4Cu + O_2$

(4) $HNO_2 \longrightarrow NO_2 + NO + H_2O$

)INT PACKAGE COURSE

12-04-2026

12 Apr 2026 Q059 Ans 2

(4) (A)–(R), (B)–(P), (C)–(Q), (D)–(S)

59. The enthalpy of neutralisation of oxalic acid by a strong base is –25.4 kcal/mol. The enthalpy of neutralisation of strong acid and strong base is –13.7 kcal/eq. The enthalpy of dissociation of $H_2C_2O_4$ is –

(1) 1.0 kcal/mol (2) 2.0 kcal mol^{-1}

(3) 18.55 kcal mol^{-1} (4) 11.7 kcal mol^{-1}

(3) III A

64. Element having

(1) Ne

(3) Be

65. Second electro respectively

(1) –780 & –

(3) –590 & –

PHASE - MAJOR NURTURE TEST SERIES / JOINT PACKAGE COURSE

12-04-2026

12 Apr 2026 Q067 Ans 3

(4) $O < O^{-2} < O^{+} < O^{+2}$

67. **Statement-I :** Neptunium and Plutonium like Actinium and Protactinium are found in "pitch blend" i.e., an ore of uranium.

Statement-II : A plot of $\sqrt{\nu}$ against atomic mass gave a straight line (where ν is frequency of x-rays emitted).

(1) Both statement I and statement II are true.

(2) Both statement I and statement II are false.

(3) Statement I is true but statement II is false.

(4) Statement I is false but statement II is true.

68. Ne and F radii are respectively (in A°)

(1) 1.60, 0.72

(3) N

(4) E

73. What pairs

(1) S

(2) T

(3) C

(4) T

74. Match

(a)	

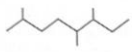
12 Apr 2026 Q076 Ans 4

English

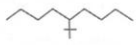
11

76. Select the option that is correctly matched :

(1) 
1-Ethyl-3,3-dimethylcyclohexane

(2) 
3,4,7-Trimethyloctane

(3) 
3-Methyl-1-propylcyclohexane

(4) 
5-(1,1-Dimethylethyl)nonane

77. Match the list-I and list-II and select the correct answer :-

79. (I) CH_3-CH_2-

Which type of i

(1) Chain iso

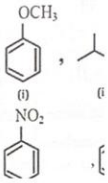
(2) Position i

(3) Functiona

(4) Metameri

80. How many of

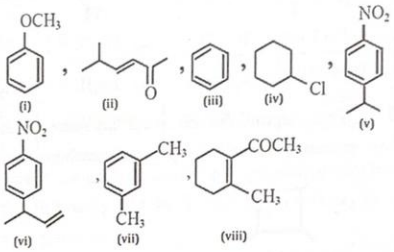
mesomeric as v



12 Apr 2026 Q080 Ans 1

(4) Metamerism

80. How many of following compounds show inductive, mesomeric as well as hyperconjugation effect.


(i) (ii) (iii) (iv) (v)

(vi) (vii) (viii)

(1) 4 (2) 5

(3) 3 (4) 6

81. Which of the following compound does not show geometrical isomerism?

: the correct

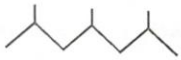
ıer

lkane

ones

diene

12 Apr 2026 Q086 Ans 3

(4) 

86. An alkylbromide (A) forms a Grignard reagent which on treatment with water yield n-hexane. When A is treated with sodium in dry ether, 4, 5-Diethyloctane is formed. The structure of A is :-

(1) $CH_3CH_2CH_2CH_2CH_2CH_2Br$

(2) $CH_3CH_2CH_2CH_2\underset{\displaystyle Br}{\underset{|}{C}}HCH_3$

(3) $CH_3CH_2CH_2\underset{\displaystyle Br}{\underset{|}{C}}HCH_2CH_3$

(4) $CH_3\underset{\displaystyle Br}{\underset{|}{C}}H\underset{\displaystyle Br}{\underset{|}{C}}HCH_2CH_2CH_3$

PHASE - MAJOR NURTURE TEST SERIES / JOINT PACKAGE COURSE

0999DMD363101250016

(3) G

(4) N

90. Corre

(i)

(ii)

(iii)

(iv)

(1) i-

(3) i-

12 Apr 2026 Q087 Ans 1

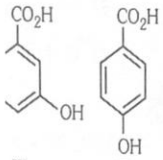
12

sp² hybridization:

$_2C=CH-CHO$

$_2C=CH-\underset{\displaystyle O}{\underset{\|}{C}}-CH_3$

for the following


III IV

English

87. $H_3C-CH=CH_2 \xrightarrow[CCl_4]{Br_2} A \xrightarrow{alc.KOH} B \xrightarrow{NaNH_2} C$

Correct statement ?

(1) Product C shows acidic behaviour with Na

(2) Product B is allyl bromide

(3) Product C reacts with ammonical silver nitrate to form yellow ppt.

(4) Product C forms Benzene on passing by Red Hot Fe Tube

88. While preparing lassaigne solution nitrogen containing organic compound when fused

12 Apr 2026 Q093 Ans 3

(4) Family – Anacardiaceae

93. *Chlorella* are placed according to Whittaker classification, in :

(1) Pyrophyta

(2) Protozoans

(3) Protista

(4) Both in pyrophyta and chrysophyta

94. How many domains are assigned to prokaryotes in three domain classification ?

(4) only unicell

96. Select the cor the following sequential ord

A. Bacterial s complex in bel

B. Both cyanc to the group of

C. Archaebact cell wall struct

12 Apr 2026 Q096 Ans 4

(4)	unicelluar	members	some members

Whittaker

ta

prokaryotes

96. Select the correct option by indicating whether the following statements are true or false, in a sequential order:-

A. Bacterial structure is very simple but very complex in behaviour

B. Both cyanobacteria and *Mycoplasma* belong to the group of eubacteria

C. Archaebacteria also a bacteria with different cell wall structure compared to eubacteria

D. Mucilaginous sheath or gelatinous sheath is present around the blue green algae

(1) FTTT (2) TFFT

(3) TTTF (4) TTTT

97. Identify the given figures :-

Antheridial

ıgi

12 Apr 2026 Q109 Ans 2

Free central
Parietal
Basal

(4) Maize leaf

109. When xylem and phloem are on same radius, the vascular bundles are said to be -

(1) Radial

(2) Conjoint

(3) Concentric

(4) Exarch

110. Which one is not found in dicot leaves ?

(1) Similar size of vascular bundles

(2) Differentiated mesophyll tissue

(3) Dorsiventral condition

(4) Parenchymatous bundle sheath extension

12 Apr 2026 Q111 Ans 3

111. *Assertion* :- Lysosomes are capable of digesting carbohydrates, proteins, lipids.

Reason :- Lysosomes are membrane bound vesicular structures formed by the process of packaging in the Golgi apparatus.

(1) Both **Assertion** and **Reason** are true but **Reason** is NOT the correct explanation of **Assertion**.

(2) **Assertion** is true but **Reason** is false.

(3) **Assertion** is false but **Reason** is true.

(4) Both **Assertion** and **Reason** are true and **Reason** is the correct explanation of **Assertion**.

112. Select the correct option

114. A
se
R
ex
lac
(1)
(2)
(3)
(4)
115. Cho
(1)
(2)
(3)

12 Apr 2026 Q118 Ans 3

(3)	Cytokinesis	Metaphase	Karyokinesis	G_2
(4)	Metaphase	Cytokinesis	Karyokinesis	G_2

118. In metaphase II of meiosis

Statement I: Chromosomes align at the equator.

Statement II: Microtubules from opposite poles of the spindle get attached to the kinetochores of sister chromatids.

(1) Only statement I is correct

(2) Only statement II is correct

(3) Both statements I and II are correct

(4) Both statements I and II are incorrect

119. Select the **correct** statement from the following with reference to mitosis :

R_2

(1) Fatty aci
(2) Phospho
(3) Triglyce
(4) Steroids

122. Which of th
known as ani
(1) Cellulos
(2) Chitin

12 Apr 2026 Q119 Ans 3

(3) Both statements I and II are correct

(4) Both statements I and II are incorrect

119. Select the **correct** statement from the following with reference to mitosis :

(a) Morphology of chromosomes is most easily studied during metaphase.

(b) Centromere split and chromatids separates during anaphase.

(c) Condensation of chromosomes is completed at early prophase.

(d) Nucleolus, golgi complex and ER reform during telophase.

Option :

(1) a, b and c only

(2) b, c and d only

(3) a, b and d only

(4) a and b only

known as ani
(1) Cellulose
(2) Chitin
(3) Glycoger
(4) Inulin

123. (A) Metal coordination t site and at t coordination b
(B) Co-enzym association wi
(1) Both (A)
(2) Both (A)
(3) Only (A)
(4) Only (B)

12 Apr 2026 Q120 Ans 3

d on given

	D
nesis	G_1

120. Given below are the two statements :-

Statement-I: Lipids are macromolecules.

Statement-II: Lipids do not form polymers.

Choose the correct option:-

(1) Both statements are correct.

(2) Only statement-I is correct.

(3) Only statement-II is correct.

(4) Both statements are incorrect.

121. The molecule given is diagram belongs to which category of biomolecules :-

12 Apr 2026 Q128 Ans 2

·B

C

D

ion

ivation energy with enzyme

abet.

(3) C (4) D

128. Available CO_2 concentration in atmosphere and higher temperature in tropical region is optimum for :-

(1) C_3, C_4 and CAM plants

(2) C_4 only

(3) C_3 and C_4 respectively

(4) C_4 and C_3 respectively

129. Given below are two statements :

Statement I : In sugarcane, the bundle

12 Apr 2026 Q137 Ans 3

ion, is :-
4) 38
ot correct?
ns the
nto a
st
by
and
of energy.
lateral buds
l dormancy
orrect among
open
lular intrinsic
e of plasticity
istic of living

(4) Fibrous connective tissue

137. ***Assertion :-*** In male cockroach external genitalia are represented by phallomeres.

Reason :- The sperms are stored in seminal vesicles and are glued together in the form of bundles,which are called spermathecae.

(1) Both Assertion & Reason are True & the Reason is a correct explanation of the Assertion.

(2) Both Assertion & Reason are True but Reason is not a correct explanation of the Assertion.

(3) Assertion is True but the Reason is False.

(4) Both Assertion & Reason are False.

138. Select the incorrect statement about squamous epithelium :-

12 Apr 2026 Q159 Ans 1

159. **Statement-I :** Exchange of nutrients, gases, etc., between the blood and the cells always occur through tissue fluid. An elaborate network of vessels called the lymphatic system collects this fluid and drains it back to the major veins.
Statement-II : The major veins in our body are 2 in number i.e. superior and inferior venacava.

(1) Statement I is true and statement II is false.

(2) Statement I is false and statement II is true.

(3) Both statement I and II are true.

(4) Both statement I and II are false.

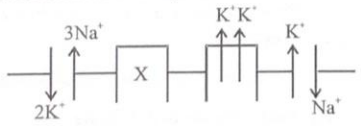
160. In lungs there is definite exchange of ions between RBC and plasma. Removal of

163.

12 Apr 2026 Q169 Ans 3

(4) Medulla oblongata

169. Below condition represents which stage of generation of Nerve-impulse?



(1) Polarisation (2) Depolarisation

(3) Repolarisation (4) Myelinogenesis

(3) ADH, M

(4) Oxytocin

173. **Statement-I :-**
Statement-II
significant rol

(1) Statemen

(2) Statemen

(3) Both Sta

(4) Both Sta

12 Apr 2026 Q170 Ans 2

an average
nin
nin
substance at
in the given
espectively?

170. Which of the following statement is not correct regarding the cyton of a neuron ?

(1) It contains uninucleated cytoplasm

(2) All cell organelles are found in it's cytoplasm

(3) Nissl's granules and neurofibril are also found in it

(4) Small cell processes called as Dendron arise from it

171. Which of the following statement is/are correct ?
(a) Invertebrates possess very simple endocrine

12 Apr 2026 Q171 Ans 4

(4) Small cell processes called as Dendron arise from it

171. Which of the following statement is/are correct ?
(a) Invertebrates possess very simple endocrine systems with few hormones
(b) Some other organs eg GIT, liver etc also produce hormones
(c) Hormones are non-antigenic & non species specific substances
(d) Secretion of hormones is always in very small quantity

(1) a, b, c

(2) b, c, d

(3) a, b, d

(4) a, b, c, d

d structure

172. The hormones stored & released from Neurohypophysis are :

12 Apr 2026 Q176 Ans 2

(4) Pineal gland

176. Urinary excretion of Na^+ is regulated by-

(1) Anterior Pituitary

(2) Adrenal cortex

(3) Neurohyphophysis

(4) Pars intermedia

177. What is sarcomere ?

(3) I

(4) I

180. Asser
Verte
Reasc
sternu
hyalin
(1) B
R
A

12 Apr 2026 Q179 Ans 3

(4) A - i, B - iii, C - ii

179. The two halves of pelvic girdle meet ventrally form the pubic symphysis which contains :

(1) Elastic cartilage

(2) Calcified cartilage

(3) Fibrous cartilage

(4) Hyaline cartilage

gulated by-

180. **Assertion:** 8th, 9th and 10th pairs of ribs are called Vertebrochondral (False) ribs

15 Mar 2026 Q005 Ans 1

SUBJECT : PHYSICS

Topic : FULL SYLLABUS

1. Eight similar drops of water are falling through air with a steady velocity of 15 cm/s. These drops combine to form a bigger single drop. Calculate the terminal velocity of bigger drop :-

(1) 15 cm/s (2) 30 cm/s

(3) 60 cm/s (4) 120 cm/s

2. One body is dropped while a second body is thrown vertically downwards with an initial velocity of 2 m/s simultaneously. The separation between them is 18 metres after a time:

(1) 9 s (2) 4.5 s

(3) 18 s (4) 9.8 s

3. On suspending a mass M from a spring the period of oscillations is T. The spring is cut into n equal segments. On suspending the mass M from one of the segments, the time period becomes $\frac{T}{\sqrt{3}}$. Then the value of n will be :-

5. The elastic lim should be the mi it is to support its elastic limit ?

(1) 1.16 mm

(3) 1.36 mm

6. Tube A has both end closed; oth ratio of fundame is :-

(1) 1 : 2

(3) 2 : 1

7. The ratio of sur acid is 2.2 whil Both the liquids with clean glass. acid in two dif

15 Mar 2026 Q017 Ans 3

l formula of "k" in

$[M^0 L^{-1} T^0]$

$[M^0 L^1 T^{-1}]$

$\int_0^{\pi/2} \cos x dx$ is :-

4 (4) 2

s 2M and radius R, a ding at the edge and it the disc. The whole igular velocity ω_0. If center then what will f the system when it om the center.

1.4 ω_0

2.4 ω_0

$\vec{B} = 3\hat{i} + 3\hat{j} - 6\hat{k}$ are :

17. In a vernier calliper, when both jaws are closed, the zero of vernier scale lies towards left of the zero of main scale, and 18th vernier scale division coincides with a main scale division. If 30 vernier scale divisions are equal to 29 main scale divisions and magnitude of zero error is given by 0.02 cm, then the number of main scale divisions in 1 cm of main scale is :-

(1) 5 (2) 10 (3) 20 (4) 25

18. The displacement of a particle varies according to the relation $x = 4(\cos\pi t + \sin \pi t)$. The amplitude of the particle is :-

(1) −4 (2) 4 (3) $4\sqrt{2}$ (4) 8

19. A particle moves along a straight line such that its displacement at any time t is given by:

$s = (t^3 - 3t^2 + 2)$ m

The displacement when the acceleration

15 Mar 2026 Q020 Ans 2

ch other.

ipult has cross-section tretched length 10 cm. and then released to is 5 g. Calculate the Young's modulus of 10^8 N/m^2).

10 ms^{-1}

40 ms^{-1}

surface tension inside t. If eight such drops ressure due to surface op is :-

6 units

48 units

(1) 0 m (2) 2 m

(3) 3 m (4) −2 m

20. The figure shows position and velocities of two particle. If the particles move under the mutual attraction of each other, then position of centre of mass at t = 1s is:

(1) x = 5 m (2) x = 6 m

(3) x = 3 m (4) x = 2 m

21. A mass is placed on a frictionless horizontal surface. It is attached to a string and rotates about a fixed centre at an angular velocity ω_0. If the length of the string and angular velocity are doubled, the tension in the string which was initially T_0, is now :-

(1) T_0 (2) $T_0/2$ (3) $4T_0$ (4) $8T_0$

15 Mar 2026 Q022 Ans 1

22. The work of 146 kJ is performed in order to compress one kilo mole of a gas adiabatically and in this process the temperature of the gas increases by 7°C. The gas is
($R = 8.3$ J mol^{-1} K^{-1})

(1) diatomic

(2) triatomic

(3) mixture of monoatomic and diatomic

(4) monoatomic

23. Two rigid boxes containing different ideal gases are placed on a table. Box A contains one mole of nitrogen at temperature T_0, while box B contains one mole of helium at temperature $\left(\frac{7}{3}\right)T_0$. The boxes are then put into thermal contact with each other, and heat flows between them until the gases reach a common final

26. In Searle's appa M kg and relat steel wire of le increase in len the block is ir density 2, the v will be :-

(1) 3 mm (2)

27. The ratio of th given to an ol escape from th kinetic energy just above the e

(1) one

(3) half

28. An earth satell circular orbit t Which one of th

15 Mar 2026 Q026 Ans 1

22. The work of 146 kJ is performed in order to compress one kilo mole of a gas adiabatically and in this process the temperature of the gas increases by 7°C. The gas is
($R = 8.3$ J mol^{-1} K^{-1})

(1) diatomic

(2) triatomic

(3) mixture of monoatomic and diatomic

(4) monoatomic

23. Two rigid boxes containing different ideal gases are placed on a table. Box A contains one mole of nitrogen at temperature T_0, while box B contains one mole of helium at temperature $\left(\frac{7}{3}\right)T_0$. The boxes are then put into thermal contact with each other, and heat flows between them until the gases reach a common final

26. In Searle's appa M kg and relat steel wire of le increase in len the block is ir density 2, the v will be :-

(1) 3 mm (2)

27. The ratio of th given to an ol escape from th kinetic energy just above the e

(1) one

(3) half

28. An earth satell circular orbit t Which one of th

15 Mar 2026 Q027 Ans 2

will be :-

(1) 3 mm (2) 4 mm (3) 5 mm (4) Zero

27. The ratio of the kinetic energy required to be given to an object placed at earth surface to escape from the earth's gravitational field to kinetic energy of the satellite in circular orbit just above the earth's atmosphere is :

(1) one (2) two

(3) half (4) infinity

28. An earth satellite is moved from one stable circular orbit to a farther stable circular orbit. Which one of the following quantities increases ?

(1) Linear orbital speed

(2) Gravitational force

(3) Centripetal acceleration

(4) Gravitational potential energy

29. A narrow glass U-tube whose one limb is of diameter 3 mm and other limb of diameter 6.0 mm is partly field with water. The difference in the

15 Mar 2026 Q029 Ans 3

(1) $T_f = \frac{3}{7}T_0$ (2) $T_f = \frac{7}{3}T_0$

(3) $T_f = \frac{3}{2}T_0$ (4) $T_f = \frac{5}{2}T_0$

24. A spherical planet far out in space has a mass M_0 and diameter D_0. A particle of mass m falling near the surface of this planet will experience an acceleration due to gravity which is equal to :

(1) $\frac{M_0}{D_0^2}$ (2) $4m\frac{M_0}{D_0^2}$

(3) $\frac{4M_0G}{D_0^2}$ (4) $m\frac{M_0}{D_0^2}$

25. If momentum (P), area (A) and time (T) are taken to be fundamental quantities, then energy has the dimensional formula :-

(1) $[P^1 A^{-1} T^1]$ (2) $[P^2 A^1 T^1]$

(3) $[P^1 A^{-1/2} T^1]$ (4) $[P^1 A^{1/2} T^{-1}]$

(3) Centripetal

(4) Gravitation

29. A narrow glass diameter 3 mm a is partly field w level of water in t [Given density surface tension o of contact betwe zero and g = 10 n

(1) 2.4 mm

(3) 4.8 mm

30. Calculate slop $\frac{x}{-3} + \frac{y}{-4} = 1$:

(1) $\frac{4}{3}$ (2)

15 Mar 2026 Q032 Ans 2

(1) 3.18 cm (2) 3.22 cm

(3) 3.25 cm (4) 3.26 cm

32. Water is being poured into a vessel at a constant rate ϕ m^3/s. There is a small aperture of cross sectional area "a" at the bottom of the vessel. The maximum level of water in the vessel is proportional to :-

(1) ϕ (2) ϕ^2/a^2 (3) 1/a (4) a

33. A particle is moving with speed $v = 2t^2$ on the circumference of circle of radius R. Match the quantities given in column I with corresponding results in column II. (t denotes time)

	Column-I		Column-II
(A)	Magnitude of tangential acceleration of particle	(P)	Decreases with time
(B)	Magnitude of centripetal acceleration of particle	(Q)	Increases with time
(C)	Magnitude of angular speed of particle with respect to	(R)	Remains constant

bigger circun a poin distan value (1) $\frac{1}{3}$

36. Four p 4m, h particl (1) B

37. A ball i Simulta upward what tim (1) 1 s

38. Three p vertices meter (inertia o to AC a

15 Mar 2026 Q035 Ans 1

vision of vernier scale division. What will be

2) 3.22 cm

1) 3.26 cm

) a vessel at a constant mall aperture of cross bottom of the vessel. vater in the vessel is

) 1/a (4) a

speed $v = 2t^2$ on the radius R. Match the I with corresponding ptes time)

	Column-II
(P)	Decreases with time

(3) $s = at^{3/2}$, a is a constant

(4) s = at, a is a constant

35. A circular plate of radius R is removed from the bigger circular plate of radius 2R such that the circumferences of the plates touch each other at a point. The centre of mass of the new plate is at distance αR from the centre of bigger plate. The value of α is :-

(1) $\frac{1}{3}$ (2) $\frac{1}{2}$ (3) $\frac{1}{6}$ (4) $\frac{1}{4}$

36. Four particles A, B, C, D of mass m/2, m, 2m, 4m, have same momentum, respectively. The particle with maximum kinetic energy is :

(1) B (2) C (3) D (4) A

37. A ball is dropped from the top of a tower 100 m high. Simultaneously another ball is thrown vertically upward from ground with a speed of 50 m s^{-1}. After what time do they cross each other ?

(1) 1 s (2) 2 s (3) 3 s (4) 4 s

38. Three particles each of mass 2m are situated at the

15 Mar 2026 Q053 Ans 1

(c)→(ii), (d)→(i)

(c)→(iii), (d)→(i)

eaction

component were taken If equilibrium constant 00, then equilibrium e per litre will be :

3) 9/11 (4) 18/11

physical equilibrium increasing temperature ore water will form. ✓

forward reaction is nd volume of water is ne of ice. ✗

Statement II are incorrect.

ut Statement II is incorrect.

(3) HNO_2, SO_2, H_2O_2

(4) HNO_3, SO_3, H_2SO_4 ✗

53. What would be the equivalent weight of the reductant in the following reaction :

$[Fe(CN)_6]^{-3} + H_2O_2 + 2OH^- \rightarrow 2[Fe(CN)_6]^{4-} + 2H_2O + O_2$

[Given : Fe = 56, C = 12, N = 14, O = 16, H = 1]

(1) 17 (2) 212 (3) 34 (4) 32

54. The ratio of dissociation constant of two weak acids HA and HB is 4. At what molar concentration ratio, the two acids will have same pH in separates solutions :-

(1) 2 (2) 0.5 (3) 4 (4) 0.25

55. Which of the following aqueous solution has highest value of pH:–

(1) 0.1M NaCl

(2) 0.1M NH_4Cl

15 Mar 2026 Q055 Ans 3

ore water will form. ✓

forward reaction is nd volume of water is ne of ice. ✗

Statement II are incorrect.

ut Statement II is incorrect.

but Statement II is correct.

Statement II are correct.

pH in separates solutions :-

(1) 2 (2) 0.5 (3) 4 (4) 0.25

55. Which of the following aqueous solution has highest value of pH:–

(1) 0.1M NaCl

(2) 0.1M NH_4Cl

(3) 0.1M CH_3COONa

(4) 0.1M CH_3COONH_4

15 Mar 2026 Q057 Ans 2

(3) 2×10^{-11} M

(4) 10^{-7} M

57. 50 mL, 0.1 M NaOH is added to 50 mL, 0.08 M HNO_3 and volume of resulting solution is made 500 mL. pH of solution would be :-

(1) 3 (2) 11.3

(3) 2.7 (4) 11

58. An ideal gas absorbs 100 J and is simultaneously compressed by a constant external pressure of 1.50 atm from 8 lit to 2 lit volume. Hence ΔU will be :

(1) – 812 J (2) 812 J

(3) 1011 J (4) 911 J

59. Consider the following reactions :

(a) $H^+_{(aq)} + OH^-_{(aq)} \longrightarrow H_2O_{(\ell)}$, $\Delta H = -X_1 kJ\ mol^{-1}$

(b) $H_{2(g)} + \frac{1}{2} O_{2(g)} \longrightarrow H_2O_{(\ell)}$, $\Delta H = -X_2 kJ\ mol^{-1}$

(c) $CO_{2(g)} + H_{2(g)} \longrightarrow CO_{(g)} + H_2O_{(\ell)} - X_3 kJ\ mol^{-1}$

(d) $C_2H_{2(g)} + \frac{5}{2} O_{2(g)} \longrightarrow 2CO_{2(g)} + H_2O_{(\ell)}$

62. Which one of t respect to mole and hybridizati

(1) XeF_4 ,sp^3

(2) XeF_2 ,sp

(3) XeF_2 ,sp^3d

(4) XeF_4 ,sp^2

63. Among the isostructural pa NF_3, NO_3^-,BF_3,

(1) [NF_3, NO_3^-

(2) [NF_3, HN_3

(3) [NF_3, H_3O

(4) [NF_3, H_3O

64. Which molecul

(1) KO_2

(3) Na_2O_2

65. The correct ord

15 Mar 2026 Q066 Ans 2

kJ mol^{-1}

g), the **correct**

(3) $CO < CO_3^{-2} < CO_2$

(4) $CO_2 < CO_3^{-2} < CO$

66. In which compound coordinate bond is present ?

(1) NO_2^-

(2) NO_3^-

(3) CO_3^{-2}

(4) All having coordinate bond

15 Mar 2026 Q068 Ans 1

(3) SF_4

(4) CH_2Cl_2

68. The vapour pressure of o-nitrophenol at any given temperature is predicted to be –

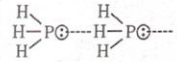
(1) higher than that of p-nitrophenol

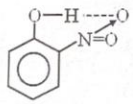
(2) lower than that of p-nitrophenol

(3) same as that of p-nitrophenol

(4) higher or lower depending upon the size of the vessel

69. Which of the following is wrong regarding H-bond ?

(1) 

(2) 

(3) .....H–C≡N:.....H–C≡N:.....H–C≡N:....

(4) H – F ..... H – F

15 Mar 2026 Q070 Ans 4

(3) .....H–C≡N:.....H–C≡N:.....H–C≡N:....

(4) H – F ..... H – F

70. Which of the following bonding is not possible :

(1) $p_x + p_x - \sigma$ bond along x-axis

(2) $p_z + d_{xz} - \pi$ bond along x-axis

(3) $p_y + p_y - \pi$ bond along x-axis

(4) $d_{yz} + d_{yz} - \pi$ bond along x-axis

71. Which of the following order is incorrect ?

(1) $F^{\ominus}_{(aq.)} < Cl^{\ominus}_{(aq.)} < Br^{\ominus}_{(aq.)} < I^{\ominus}_{(aq.)}$ (conductivity)

(2) $Na^+_{(aq.)} < Mg^{+2}_{(aq.)} > Al^{+3}_{(aq.)}$ (hydrated size)

(3) $Na^+_{(aq.)} < K^+_{(aq.)} < Rb^+_{(aq.)} < Cs^+_{(aq.)}$ (ionic mobility)

(4) $Ca^{+2} < K^+ < S^{-2} < P^{-3}$ (ionic size)

15 Mar 2026 Q072 Ans 3

having zero dipole moment is :-

loro benzene

ressure of o-nitrophenol at any ure is predicted to be –

n that of p-nitrophenol

that of p-nitrophenol

at of p-nitrophenol

ower depending upon the size of

following is wrong regarding

8

72. Which of following does not belong to sa block as others :-

(1) [Xe] $4f^{14}5d^{10}6s^2$ (2) [Kr] $4d^{10}5s^2$

(3) [Rn] $7s^26d^2$ (4) [Ar] $3d^64s^2$

73. Correct order of Atomic radius :-

(1) Be > Li > B > C (2) N > O > C > B

(3) P > Si > Mg > Na (4) I > P > S > Cl

74. Correct match is :

(1) $I^- > Cl^- > S^{-2} > N^{-3}$: Size order

(2) P > S > O > N ; $\Delta_i H$ order

(3) Cl > F > O > S ; $-\Delta_{eg}H$ order

(4) F > O > N > P ; EN order

75. What is the nature of Ga_2O_3 and GeO :-

(1) Acidic, Acidic

15 Mar 2026 Q076 Ans 3

---O

=O

:.....H–C≡N:.....H–C≡N:....

. H – F

lowing bonding is not possible :

bond along x-axis

bond along x-axis

bond along x-axis

t bond along x-axis

owing order is incorrect ?

$< Br^{\ominus}_{(aq.)} < I^{\ominus}_{(aq.)}$ (conductivity)

$^{+2}_{(aq.)} > Al^{+3}_{(aq.)}$ (hydrated size)

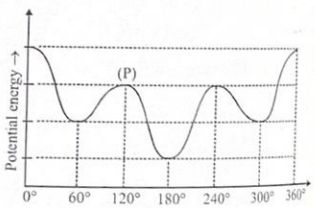
$< Rb^+_{(aq.)} < Cs^+_{(aq.)}$ (ionic mobility)

$^{-2} < P^{-3}$ (ionic size)

(3) Amphoteric, Amphoteric

(4) Amphoteric, Acidic

76. Butane ($CH_3–CH_2–CH_2–CH_3$) can convert to various conformation at room temperature. According to following graph conformation corresponding to (P) is :-



(1) Eclipsed (2) Anti form

(3) Partially eclipsed (4) Gauche

77. Most stable free radical is :

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

15 Mar 2026 Q081 Ans 3

English

Column-II (Isomerism)
Not isomer
Metamer
Position isomerism
Ring chain isomerism

)-(S)
)-(S)
)-(P)
)-(S)
tructure is :-

81. Which of the following name will be incorrect :

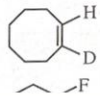
(1)  3,6-dimethyl cyclohexene

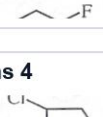
(2)  1,6-Dimethyl cyclohexene

(3)  6,6-Dimethyl cyclohexene

(4)  1,5-Dimethyl cyclohexene

82. Which of the following compound does not show geometrical isomerism.

(1) 

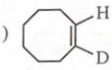
(2) 

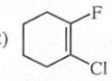
15 Mar 2026 Q082 Ans 2

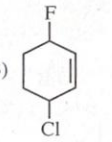
isomerism
)-(S)
)-(S)
)-(P)
)-(S)
tructure is :-

(4)  1,5-Dimethyl cyclohexene

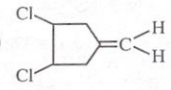
82. Which of the following compound does not show geometrical isomerism.

(1) 

(2) 

(3) 

ounds

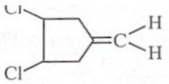
(4) 

83. In peroxide effect, which of the following steps are possible :-

$[CH_3-CH=CH_2 + HBr \xrightarrow{(C_6H_5CO)_2O_2}]$

15 Mar 2026 Q083 Ans 4

ounds

(4) 

83. In peroxide effect, which of the following steps are possible :-

$[CH_3-CH=CH_2 + HBr \xrightarrow{(C_6H_5CO)_2O_2}]$

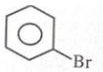
(1) $Ph-\overset{\overset{O}{\|}}{C}-O-O-\overset{\overset{O}{\|}}{C}-Ph \longrightarrow 2Ph-\overset{\overset{O}{\|}}{C}-O^{\bullet}$

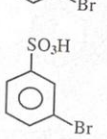
(2) $Ph-\overset{\overset{O}{\|}}{C}-O^{\bullet} \longrightarrow Ph^{\bullet} + CO_2$

(3) $Ph^{\bullet} + H-Br \longrightarrow Ph-H + Br^{\bullet}$

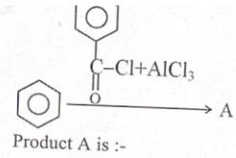
(4) All steps are possible

15 Mar 2026 Q090 Ans 3

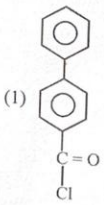


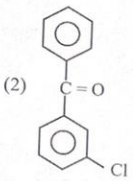
(4) 

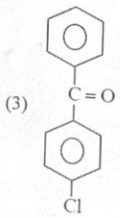
;CH=CHCH$_3$ with HBr

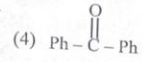
90. 

Product A is :-

(1) 

(2) 

(3) 

(4) 

15 Mar 2026 Q093 Ans 3

(4) *Ectocarpus* – Laminarin

93. **Assertion :** The male and female gametophytes do not have an independent free-living existence in gymnosperms.

Reason : They remain within sporangia retained on the sporophytes for variable period.

(1) Both Assertion & Reason are True & the Reason is a correct explanation of the Assertion.

(2) Both Assertion & Reason are True but Reason is not a correct explanation of the Assertion.

(3) Assertion is True but the Reason is False.

(4) Both Assertion & Reason are False.

95. Union of gamet

(1) Free water

(2) Within oog

(3) Within arcl

(4) Either in fr

96. Which of th *Euglena* is true

(1) Euglenoids

(2) *Euglena* darkness, l and die

(3) The pigme from those

(4) *Euglena* is

15 Mar 2026 Q095 Ans 2

e gametophytes
living existence
rangia retained
riod.
re True & the
nation of the
are True but
lanation of the
son is False.
False.

95. Union of gamete in red algae usually occurs in :

(1) Free water

(2) Within oogonium

(3) Within archegonium

(4) Either in free water or within oogonium

96. Which of the following statements about *Euglena* is true ?

(1) Euglenoids bear flagella

(2) *Euglena* when placed in continuous darkness, loose their photosynthetic activity and die

(3) The pigments of *Euglena* are quite different from those of green plants

(4) *Euglena* is a marine protist

15 Mar 2026 Q100 Ans 3

(3) Influenza and mumps

(4) Cholera and typhoid

100. Read the statement (A-D) and select the option having all the correct statement -

(A) Intrinsic growth is the defining property of living organism.

(B) Wheat, plant, mammal, dog, human etc. are taxa.

(C) The process of classification is known as nomenclature.

(D) Lower the taxa, lesser are the common characterstics that the members share with in the taxon.

(1) Three

(2) Four

(3) Two

(4) One

103.

104. S

15 Mar 2026 Q115 Ans 2

(4) G_0 phase – Cells are metabolically active but no longer proliferate

115. Read the statements and choose the most appropriate answer from the options given below :

Statement I :- A very significant contribution of mitosis is cell repair, so cells of blood are being constantly replaced.

Statement II :- Meristematic tissue divide meiotically in plants for continuous growth throughout their life.

(1) Statement-I and statement-II both are true

(2) Statement-I is true and statement-II is false

(3) Statement-I is false and statement-II is true

(4) Statement-I and statement-II both are false

118. Size of ty

(1) 0.1 µ

(2) 0.3 µ

(3) 1 - 2

(4) 0.02 -

119. Cilia and structure c

(1) Centr

(2) Kinet

(3) Basal

(4) Centr

120. What will cell in S metaphase

(1) 20

(3) 30

15 Mar 2026 Q125 Ans 3

the option below :

(1) a, b and c (2) a, b and d

(3) a, c and d (4) All

125. Given below are two statements :

Statement I : In C_3 plants, some O_2 binds to RuBisCO, hence CO_2 fixation is decreased.

Statement II : In C_4 plants, mesophyll cells show very little photorespiration while bundle sheath cells do not show photorespiration.

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

(1) Both Statement I and Statement II are true

(2) Both Statement I and Statement II are false

(3) Statement I is true but Statement II is false

(4) Statement I is false but Statement II is true

orrectly identified

by which of the

nt of animal cell

cell membrane

ource

126. Given below are some characteristics of photosynthetic plants. Which of these are true for C_4 plants?

(i) RuBiSCO is present in the mesophyll cells.

(ii) 3-carbon compound is the primary CO_2 acceptor.

(iii) The primary CO_2 fixation product is PGA.

(iv) Possess PEPCase

(v) The initial carboxylation reaction occurs in the

15 Mar 2026 Q130 Ans 2

(3) Maize and sugarcane

(4) Sugarcane and potato

130. Match **List-I** with **List-II** :-

List-I		List-II	
A.	Auxin	I	Helping the plants to increase their absorption surface
B.	Ethylene	II	Internode elongation just prior to flowering in some plants
C.	Cytokinin	III	Helps to initiate rooting in stem cuttings
D.	Gibberellin	IV	Helps in the delay of leaf senescence

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

(1) A-II, B-III, C-IV, D-I

(2) A-III, B-I, C-IV, D-II

(3) A-II, B-IV, C-I, D-III

(4) A-III, B-II, C-I, D-IV

(2) Ass

(3) Botl is a

(4) Botl is nc

133. In Krebs takes pla

(1) Con

(2) Con

(3) Con

(4) Con

134. Ubiquino

(1) NAI

(2) FAD

(3) Both

(4) ATP

15 Mar 2026 Q135 Ans 3

ALLEN®

17

135. All of the following processes yield NAD^+, except

(1) Lactic acid fermentation

(2) Alcohol fermentation

(3) Citric acid cycle

(4) ETS and oxidative phosphorylation

136. Which of the following combinations is incorrect ?

1. *Crocodilus* – Four-chambered heart
2. *Balaenoptera* – Viviparous mammal
3. *Aptenodytes* – Flightless bird
4. *Ornithorhynchus* – Viviparous mammal

(1) 1 only (2) 2 only

(3) 4 only (4) 1 and 4

137. With reference to Arthropoda, read the statements:

1. It is the largest phylum of Animalia, including insects.

140. In some anima mesoderm inst scattered pouc endoderm. Wh that animals?

(1) Acoelomat

(3) Schizocoel

141. Which among Pisces ?

(1) Their hea single circu

(2) They have fins that he

(3) Their skel bone.

(4) They are regulate the

15 Mar 2026 Q151 Ans 3

egular connective tissue

D – 2

D – 4

D – 1

D – 3

ssels is called as :-

tement is **correct**

copulatory pad ?

ore limb

(1) Neutrophils (2) Basophils

(3) Monocytes (4) Eosinophils

151. **Assertion :-** In a healthy individual the volume of blood pumped out by each ventricle per minute is about 5 litre.

Reason :- In a healthy individual the stroke volume is about 70 ml & heart rate is 72/min.

(1) Assertion is True but the Reason is False.

(2) Assertion is False but the Reason is True.

(3) Both Assertion & Reason are True & the Reason is a correct explanation of the Assertion.

(4) Both Assertion & Reason are True but Reason is not a correct explanation of the Assertion.

152. Which of the following animals has two separate circulatory pathways ?

(1) Frog (2) Lizard

(3) Rat (4) Labeo

15 Mar 2026 Q155 Ans 3

(3) Statement-I and statement-II both are true.

(4) Statement-I is false but statement-II is true.

155. Which of the following factors are responsible for the left shift in the oxygen dissociation curve :-

(1) High pO_2, low pCO_2, low pH, high $[H^+]$

(2) High pCO_2, low pO_2, low temperature, high pH

(3) High pO_2, low temperature, high pH, low pCO_2.

(4) High pCO_2, low pO_2, high temperature, low pH

156. Match the column-I and II.

	Column-I		Column-II
i.	Tidal volume (TV)	a.	1100-1200 ml
ii.	Inspiratory reserve volume (IRV)	b.	4800 ml
iii.	Residual volume (RV)	c.	500 ml
iv.	Vital capacity	d.	2500-3000 ml

Choose appropriate option :-

(1) i-a, ii-b, iii-c, iv-d (2) i-c, ii-d, iii-a, iv-b

(4) Assertion is

158. A chemosensitiv

(1) O_2 and H^+ i

(3) CO_2 and H^+

159. How many of excreted in urine NH_4^+, Urea, Glu Albumin, Uric a

(1) Two (2)

160. Find out the co table:-

	Column-I	
(i)	ANF	R w
(ii)	Renin	S J
(iii)	ADH	A pi

(1) (i) and (ii)

15 Mar 2026 Q159 Ans 3

155. Which of the following factors are responsible for the left shift in the oxygen dissociation curve :-

(1) High pO_2, low pCO_2, low pH, high $[H^+]$

(2) High pCO_2, low pO_2, low temperature, high pH

(3) High pO_2, low temperature, high pH, low pCO_2.

(4) High pCO_2, low pO_2, high temperature, low pH

156. Match the column-I and II.

	Column-I		Column-II
i.	Tidal volume (TV)	a.	1100-1200 ml
ii.	Inspiratory reserve volume (IRV)	b.	4800 ml
iii.	Residual volume (RV)	c.	500 ml
iv.	Vital capacity	d.	2500-3000 ml

Choose appropriate option :-

(1) i-a, ii-b, iii-c, iv-d (2) i-c, ii-d, iii-a, iv-b

(3) i-c, ii-b, iii-d, iv-a (4) i-a, ii-c, iii-d, iv-b

(1) O_2 and H^+ i

(3) CO_2 and H^+

159. How many of excreted in urine NH_4^+, Urea, Glu Albumin, Uric a

(1) Two (2)

160. Find out the co table:-

	Column-I	
(i)	ANF	R w
(ii)	Renin	S J
(iii)	ADH	A pi

(1) (i) and (ii)

(3) (i) only

15 Mar 2026 Q167 Ans 3

(3)	ii	iv	i	iii
(4)	ii	i	iv	iii

ce of toxicity among
d in the increasing order.
nmonia
ı < urea
nmonia
ric acid
ient is mainly caused by :-

uch amount of urea

167. Given below are two statements :

Statement I : The neural organisation in Hydra is composed of a network of neurons. The neural system is better organised in insects, where a brain is present along with a spinal cord and neural tissues. The vertebrates have a more developed neural system.

Statement II : The neural system of all animals is composed of highly specialised cells called neurons which can detect, receive and transmit different kinds of stimuli.

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

(1) Both Statement I and Statement II are incorrect

(2) Statement I is correct but Statement II is incorrect

(3) Statement I is incorrect but Statement II is correct

(4) Both Statement I and Statement II are correct

168. Which of the following statements is incorrect ?

(1) Pons contains fibre tracts

(2) Medulla oblongata controls reflexes

(3) Cerebellum has a convoluted surface

(4) Brainstem is made up of cerebellum, pons

1 Mar 2026 Q001 Ans 1

SUBJECT : PHYSICS

Topic : FULL SYLLABUS

1. If $y = \log(\sin x)$ then find $\frac{dy}{dx}$.

(1) cot x (2) $-\tan x$

(3) tan x (4) $-\cot x$

2. The percentage errors in measurements of mass and speed are 1% and 2% respectively. How much will be the maximum error in the calculation of kinetic energy of that body :

(1) 1% (2) 3% (3) 5% (4) 6%

3. If $\alpha = \frac{F}{V^2}\cos(\beta t)$. Find dimension of $\frac{\alpha}{\beta}$ if V is velocity, F is force and t is time :

(1) $[M^1 L^{-1} T^1]$ (2) $[M^1 L^1 T^1]$

(3) $[M^{-1} L^{-1} T^{-1}]$ (4) $[M^{-1} L^{-1} T^1]$

4. Match list-I with list-II :

	List-I		List-II

6. A particle exp 20 seconds aft distance s_1 in t in the next 10 s

(1) $s_2 = s_1$

(3) $s_2 = 3s_1$

7. A particle mov its displacemen $s = t^3$ The velocity wl

(1) 3 m s^{-1}

(3) 42 m s^{-1}

8. The velocity v related as $v^2 =$ will be the vel the displacemer

1 Mar 2026 Q006 Ans 3

SUBJECT : PHYSICS

Topic : FULL SYLLABUS

1. If $y = \log(\sin x)$ then find $\frac{dy}{dx}$.

(1) cot x (2) $-\tan x$

(3) tan x (4) $-\cot x$

2. The percentage errors in measurements of mass and speed are 1% and 2% respectively. How much will be the maximum error in the calculation of kinetic energy of that body :

(1) 1% (2) 3% (3) 5% (4) 6%

3. If $\alpha = \frac{F}{V^2}\cos(\beta t)$. Find dimension of $\frac{\alpha}{\beta}$ if V is velocity, F is force and t is time :

(1) $[M^1 L^{-1} T^1]$ (2) $[M^1 L^1 T^1]$

(3) $[M^{-1} L^{-1} T^{-1}]$ (4) $[M^{-1} L^{-1} T^1]$

4. Match list-I with list-II :

	List-I		List-II

6. A particle exp 20 seconds aft distance s_1 in t in the next 10 s

(1) $s_2 = s_1$

(3) $s_2 = 3s_1$

7. A particle mov its displacemen $s = t^3$ The velocity wl

(1) 3 m s^{-1}

(3) 42 m s^{-1}

8. The velocity v related as $v^2 =$ will be the vel the displacemer

1 Mar 2026 Q014 Ans 1

(1) A (2) B (3) C (4) D

14. Match the column:

	Column-I (body)		Column-II (location of COM)
(P)	Uniform rod of length L	(1)	At geometrical centre.
(Q)	Uniform solid cone of height h	(2)	At L/2 from one end.
(R)	Uniform solid hemi sphere of radius R	(3)	h/4 from base (axis of symmetry)
(S)	Uniform semi-circular ring of radius R	(4)	$\frac{2R}{\pi}$ from centre (on axis of symmetry)
		(5)	$\frac{3R}{8}$ from centre (on axis of symmetry)

(1) P→2;Q→3;R→5;S→4

(2) P→1;Q→3;R→5;S→2

(3) P→2;Q→5;R→3;S→4

(4) P→2;Q→3;R→4;S→5

(1) $\sqrt{15}$ms

(3) $\sqrt{30}$ms

17. The momer length 2ℓ a

(1) $\frac{2m\ell^2}{3}$

(3) $\frac{5m\ell^2}{24}$

18. A particle circular mo What will particle abo

(1) $\frac{3}{2}$mvr

(3) $\frac{7}{2}$mvr

1 Mar 2026 Q019 Ans 1

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19. A fly wheel rotating about a fixed axis experiences an angular retardation proportional to the angle through which it rotates. If its rotational kinetic energy gets reduced by ΔE while it rotates through an angle θ, then

(1) $\Delta E \propto \theta^2$ (2) $\Delta E \propto \sqrt{\theta}$

(3) $\Delta E \propto \theta$ (4) $\Delta E \propto \theta^{\frac{3}{2}}$

20. If the earth stops revolving in its orbit about the sun, there will be variation in the weight of the bodies at:

(1) Equator (2) Latitude 60°

(3) Poles (4) No where

21. The distances from the centre of the earth where the weights of the body are zero and one-fourth that of the weight of body on the surface of the earth are: (Assume R is the radius of the earth)

24. The elastic lim
Young's modu
maximum elon
that can be giv
limit.

(1) 2 mm

(3) 1 mm

25. A steel plate of f
is fixed rigidly a
is applied paral
lateral displacen
modulus of steel

(1) 1.5×10^{-9}

(3) 1.5×10^{-1}

26. A wire of 1m l
at upper end.
angle of 30°. Tl

1 Mar 2026 Q021 Ans 1

(1) Equator (2) Latitude 60°

(3) Poles (4) No where

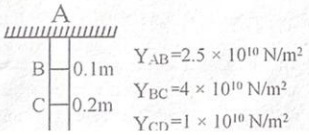
21. The distances from the centre of the earth where the weights of the body are zero and one-fourth that of the weight of body on the surface of the earth are: (Assume R is the radius of the earth)

(1) $0, \frac{R}{4}$ (2) $0, \frac{3R}{4}$ (3) $\frac{R}{4}, 0$ (4) $\frac{3R}{4}, 0$

22. If a man at the equator would weigh $(3/5)^{th}$ of his weight at the poles, the angular speed of the earth is :

(1) $\sqrt{\frac{2}{5}\frac{g}{R}}$ (2) $\sqrt{\frac{g}{R}}$ (3) $\sqrt{\frac{R}{g}}$ (4) $\sqrt{\frac{2}{5}\frac{R}{g}}$

23. AB, BC and CD are wires of cross sectional area 10^{-7} m^2. Find the displacement of point B, C and D on hanging a mass of 10 kg at point D.



$Y_{AB}=2.5 \times 10^{10}$ N/m^2
$Y_{BC}=4 \times 10^{10}$ N/m^2
$Y_{CD}=1 \times 10^{10}$ N/m^2

modulus of steel

(1) 1.5×10^{-9}

(3) 1.5×10^{-1}

26. A wire of 1m l
at upper end.
angle of 30°. Tl

(1) 0.120 (2)

27. A particle is pe
along X-axis
period 1.2s. T
particle to mov
and back again

(1) 0.6 s (2)

28. The displacem
undergoing sup
$y_1 = 4 \sin \omega$
the amplitude o

(1) 5 (2)

29. Transverse wa

1 Mar 2026 Q022 Ans 1

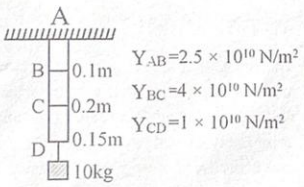
earth are: (Assume R is the radius of the earth)

(1) $0, \frac{R}{4}$ (2) $0, \frac{3R}{4}$ (3) $\frac{R}{4}, 0$ (4) $\frac{3R}{4}, 0$

22. If a man at the equator would weigh $(3/5)^{th}$ of his weight at the poles, the angular speed of the earth is :

(1) $\sqrt{\frac{2}{5}\frac{g}{R}}$ (2) $\sqrt{\frac{g}{R}}$ (3) $\sqrt{\frac{R}{g}}$ (4) $\sqrt{\frac{2}{5}\frac{R}{g}}$

23. AB, BC and CD are wires of cross sectional area 10^{-7} m^2. Find the displacement of point B, C and D on hanging a mass of 10 kg at point D.



$Y_{AB}=2.5 \times 10^{10}$ N/m^2
$Y_{BC}=4 \times 10^{10}$ N/m^2
$Y_{CD}=1 \times 10^{10}$ N/m^2

(1) 4 mm, 9 mm, 24 mm

(2) 2 mm, 4.5 mm, 12 mm

(3) 6 mm, 13.5 mm, 36 mm

angle of 30°. Tl

(1) 0.120 (2)

27. A particle is pe
along X-axis
period 1.2s. T
particle to mov
and back again

(1) 0.6 s (2)

28. The displacem
undergoing sup
$y_1 = 4 \sin \omega$
the amplitude o

(1) 5 (2)

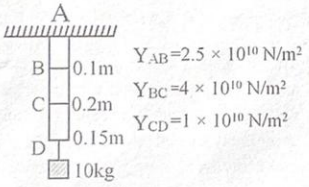
29. Transverse wa
a velocity of 14
nearest points
particles carrie
What is the frec

(1) 290 Hz

1 Mar 2026 Q023 Ans 1

(1) $\sqrt{\frac{2}{5}\frac{g}{R}}$ (2) $\sqrt{\frac{g}{R}}$ (3) $\sqrt{\frac{R}{g}}$ (4) $\sqrt{\frac{2}{5}\frac{R}{g}}$

23. AB, BC and CD are wires of cross sectional area 10^{-7} m^2. Find the displacement of point B, C and D on hanging a mass of 10 kg at point D.



$Y_{AB}=2.5 \times 10^{10}$ N/m^2
$Y_{BC}=4 \times 10^{10}$ N/m^2
$Y_{CD}=1 \times 10^{10}$ N/m^2

(1) 4 mm, 9 mm, 24 mm

(2) 2 mm, 4.5 mm, 12 mm

(3) 6 mm, 13.5 mm, 36 mm

(4) 3 mm, 6 mm, 18 mm

period 1.2s. T
particle to mov
and back again

(1) 0.6 s (2)

28. The displacem
undergoing sup
$y_1 = 4 \sin \omega$
the amplitude o

(1) 5 (2)

29. Transverse wa
a velocity of 14
nearest points
particles carrie
What is the frec

(1) 290 Hz

(3) 14500 Hz

1 Mar 2026 Q024 Ans 1

English

a fixed axis
n proportional
rotates. If its
duced by ΔE
then

$\propto \sqrt{\theta}$

$\propto \theta^{\frac{3}{2}}$

orbit about the
weight of the

ude 60°

here

ne earth where
and one-fourth
surface of the
of the earth)

24. The elastic limit of steel is 8×10^8 N/m^2 and its Young's modulus 2×10^{11} N/m^2. Find the maximum elongation of a half meter steel wire that can be given without exceeding the elastic limit.

(1) 2 mm (2) 4 mm

(3) 1 mm (4) 16 mm

25. A steel plate of face-area 4 cm^2 and thickness 0.5 cm is fixed rigidly at the lower surface. A force of 9.6 N is applied parallel to the upper surface. Find the lateral displacement of the upper surface. Rigidity modulus of steel = 8×10^{10} N/m^2.

(1) 1.5×10^{-9} m (2) 1.5×10^{-8} m

(3) 1.5×10^{-10} m (4) 1.5×10^{-7} m

26. A wire of 1m length and 4mm radius is clamped at upper end. The lower end is twisted by an angle of 30°. The angle of shear is (in degree)

1 Mar 2026 Q029 Ans 2

0^{10} N/m^2
^{10} N/m^2
^{10} N/m^2

the amplitude of the resultant wave is :-

(1) 5 (2) 7 (3) 1 (4) 0

29. Transverse wave propagates in a medium with a velocity of 1450 m/s. The distance between the nearest points at which the oscillations of the particles carried in the opposite phase π is 0.1m. What is the frequency of the wave ?

(1) 290 Hz (2) 7250 Hz

(3) 14500 Hz (4) 145 Hz

1 Mar 2026 Q030 Ans 3

English

30. A string with mass density of 4×10^{-3} kg/m is under tension of 360N and is fixed at both ends. One of its resonance frequencies is 375Hz. The next higher resonance frequency is 450Hz. Find the mass of the string.

(1) 2×10^{-3} kg (2) 4×10^{-3} kg

(3) 8×10^{-3} kg (4) 6×10^{-3} kg

31. The equation $y = a\sin^2(kx - \omega t)$ represents a wave motion whose :-

(1) Amplitude is a and frequency is $\frac{\omega}{2\pi}$

(2) Amplitude is 2a and frequency is $\frac{\omega}{2\pi}$

(3) Amplitude is $\frac{a}{2}$ and frequency is $\frac{\omega}{\pi}$

(4) Amplitude is a and frequency is $\frac{2\omega}{\pi}$

1 Mar 2026 Q031 Ans 3

(1) 2×10^{-3} kg (2) 4×10^{-3} kg

(3) 8×10^{-3} kg (4) 6×10^{-3} kg

31. The equation $y = a\sin^2(kx - \omega t)$ represents a wave motion whose :-

(1) Amplitude is a and frequency is $\frac{\omega}{2\pi}$

(2) Amplitude is 2a and frequency is $\frac{\omega}{2\pi}$

(3) Amplitude is $\frac{a}{2}$ and frequency is $\frac{\omega}{\pi}$

(4) Amplitude is a and frequency is $\frac{2\omega}{\pi}$

32. Which of the following statements is correct for any thermodynamic system ?

(1) The internal energy changes in all processes.

(2) Internal energy is state function

(3) Heat supplied in adiabatic process can never be zero.

(4) The work done in an adiabatic process is

1 Mar 2026 Q034 Ans 4

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34. Which of the following is incorrect regarding the first law of thermodynamics ?

(1) It is applicable to any cycle process

(2) It is a restatement of the principle of conservation of energy

(3) It introduces the concept of the internal energy

(4) It gives direction of heat flow.

35. A gaseous mixture consists of 16g of helium and 16 g of oxygen. The ratio $\frac{C_P}{C_v}$ of the mixture is :

(1) 1.59 (2) 1.62 (3) 1.4 (4) 1.54

36. A system goes from A to B via two processes I and II as shown in figure. If ΔU_1 and ΔU_2 are the changes in internal energies in the processes I and II respectively, then :

P II

1 Mar 2026 Q037 Ans 2

(3) $\Delta U_2 > \Delta U_1$

(4) $\Delta U_2 < \Delta U_1$

37. Work done in expanding one mole of an ideal gas isothermally from 2L to 4L is equal to the work done in expanding three moles of an ideal gas from 2L to x L at same temperature. Find x.

(1) $8^{1/3}$ (2) $4^{2/3}$ (3) 2 (4) 16

38. The pitch of a screw gauge is 0.5mm and there are 100 divisions on its circular scale. When nothing is put-in between jaws and screw is completely closed, the zero of the circular scale lies 2 divisions above the reference line. While measuring thickness of a sheet, the reading of main scale is 6 divisions and 53rd circular scale division coincides with reference line. The thickness of sheet is :

(1) 6.255 mm (2) 3.275 mm

(3) 3.255 mm (4) 6.275 mm

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1 Mar 2026 Q038 Ans 2

gas from 2L to x L at same temperature. Find x.

(1) $8^{1/3}$ (2) $4^{2/3}$ (3) 2 (4) 16

38. The pitch of a screw gauge is 0.5mm and there are 100 divisions on its circular scale. When nothing is put-in between jaws and screw is completely closed, the zero of the circular scale lies 2 divisions above the reference line. While measuring thickness of a sheet, the reading of main scale is 6 divisions and 53rd circular scale division coincides with reference line. The thickness of sheet is :

(1) 6.255 mm (2) 3.275 mm

(3) 3.255 mm (4) 6.275 mm

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0999DMD363101250018

1 Mar 2026 Q040 Ans 4

(1) 0.35 m (2) 0.40 m

(3) 0.50 m (4) 0.60 m

40. For a wire, the Young's modulus(Y) is given by an equation $Y = 51000 \frac{M}{\ell} \frac{\text{dyne}}{\text{cm}^2}$, where M and ℓ are mass of wire and extension of wire respectively. Error in Young's modulus is estimated by taking data from M– ℓ plot on graph paper. The smallest division on load axis and extension axis are 10g and 0.04 cm respectively. If mass used is 400 g and ℓ is 2 cm, then percentage error in Y is :

(1) 2% (2) 2.5%

(3) 3% (4) 4.5%

41. In physics lab, a student performs experiment using resonance tube of diameter 5cm filled with water. A tuning fork of frequency 420 Hz is sounded just above the tube. The zero of reference meter scale just coincides with top end of tube. The speed of sound at given

1 Mar 2026 Q041 Ans 4

(1) 2% (2) 2.5%

(3) 3% (4) 4.5%

41. In physics lab, a student performs experiment using resonance tube of diameter 5cm filled with water. A tuning fork of frequency 420 Hz is sounded just above the tube. The zero of reference meter scale just coincides with top end of tube. The speed of sound at given temperature is 336 m/s. When first resonance occurs, the reading of water level in the column is :-

(1) 15.75 cm (2) 16.25 cm

(3) 17.25 cm (4) 18.50 cm

42. In a damped oscillation system, the time taken for amplitude to become half is 'T', then the time taken for mechanical energy of system to become half is :-

(1) T (2) 2T (3) T/2 (4) T/4

(2) 3g

(3) 2g

(4) 4g

45. A block of ma
string of mass
figure. The
acceleration a =
point P is –

(1) 2 mg

(2) 4 mg

(3) 3 mg

(4) mg

1 Mar 2026 Q047 Ans 1

(1) 2×10 (2) –

(3) 12×10^{10} (4) 2×10^{20}

47. If $n+\ell = 5$, possible number of subshell is
n = Principal Quantum no.
ℓ = Azimuthal Quantum no.

(1) 3 (2) 2 (3) 4 (4) 5

48. $N_2(g) + O_2(g) \rightleftharpoons 2NO(g)$; $K = 2 \times 10^3$
$H_2(g) + I_2(g) \rightleftharpoons 2HI(g)$; $K = 2 \times 10^5$
$N_2(g) + 2O_2(g) \rightleftharpoons 2NO_2(g)$; $K = 2 \times 10^2$
$N_2(g) + \frac{1}{2}O_2(g) \rightleftharpoons N_2O(g)$; $K = 2 \times 10^1$
In above reactions which of the following product is most stable :-

(1) NO (2) HI (3) NO_2 (4) N_2O

49. **Statement I :** Increase or decrease of pressure has no effect on the reaction
$N_{2(g)} + O_{2(g)} \rightleftharpoons 2NO_{(g)}$
Statement II : A low pressure applied to the reaction $PCl_{5(g)} \rightleftharpoons PCl_{3(g)} + Cl_{2(g)}$ will increase

(3) 50 g

52.

(A)	Cat
(B)	Anc
(C)	Alp exp
(D)	Ber by

Correct m

(1) A-(ii

(2) A-(iv

(3) A-(ii

(4) A-(ii

53. On addin

1 Mar 2026 Q053 Ans 2

(3) A-(ii), B-(iv), C-(i), D-(iii)

(4) A-(iii), B-(i), C-(iv), D-(ii)

ire applied to the
$Cl_{2(g)}$ will increase
$Cl_{5(g)}$

itement II is false

ement II are true

tatement II true

ement II are false

53. On adding 0.04 g solid NaOH to a 100 mL, $\frac{M}{200}$ $Ba(OH)_2$ solution, determine change in pH :

(1) 0

(2) +0.3

(3) –0.3

(4) +0.7

54. Review the equilibrium and choose the correct statement
$HClO_4 + H_2O \rightleftharpoons H_3O^+ + ClO_4^-$

(1) $HClO_4$ is the conjugate acid of H_2O

(2) H_3O^+ is the conjugate base of H_2O

(3) H_2O is the conjugate acid of H_3O^+

(4) ClO_4^- is the conjugate base of $HClO_4$

80 mL $H_{2(g)}$ then
$NH_{3(g)}$, Assume all
same temperature

0 mL

0 mL

0000DMD26210126001B

1 Mar 2026 Q056 Ans 3

(1) 3.46×10^{-3} M (2) 4×10^{-2} M

(3) 2×10^{-2} M (4) 7.0×10^{-3} M

56. **Statement I :** In acidic medium MnO_4^- as an oxidant converts into Mn^{+2} ion.
Statement II : In redox titration, $KMnO_4$ act as self indicator.

(1) Only statement I is correct.

(2) Only statement II is correct.

(3) Both statement I and statement II are correct.

(4) Both statement I and statement II are incorrect.

57. $Cr_2O_7^{-2} + I^- + H^+ \longrightarrow Cr^{+3} + I_2 + H_2O$. The equivalent weight of reductant in the above equation is :-
[Cr = 52, H = 1, O = 16, I = 127]

(1) 26

(2) 127

(3) 63.5

(4) 10.4

$2NH_3(g) + 3Cl$

(1) + 450 kJ

(2) – 450 kJ

(3) – 250 kJ

(4) + 250 kJ

61. The octet rule i

(1) CO_2

(3) O_2

62. Variable covale

(1) P and S

(3) N and P

63. In C_3O_2, the hy

(1) sp^2 (2)

64. Considering X-
of the following

(1) 1s-1s

(3) 2p and 2p

1 Mar 2026 Q057 Ans 2

(3) Both statement I and statement II are correct.

(4) Both statement I and statement II are incorrect.

57. $Cr_2O_7^{-2} + I^- + H^+ \longrightarrow Cr^{+3} + I_2 + H_2O$. The equivalent weight of reductant in the above equation is :-
[Cr = 52, H = 1, O = 16, I = 127]

(1) 26

(2) 127

(3) 63.5

(4) 10.4

58. One mol of gas absorbs 30 J of heat at constant volume and its temperature raises from 30°C to 35°C. The value of ΔU is :-

(1) 60 J (2) 150 J

(3) 30 J (4) 200 J

59. Which of the following reaction is showing equation corresponding to heat of formation as well as combustion ?

(3) O_2

62. Variable covale

(1) P and S

(3) N and P

63. In C_3O_2, the hy

(1) sp^2 (2)

64. Considering X-
of the following

(1) 1s-1s

(3) $2p_y$ and 2p

65. Shape of SF_4 m

(1) T-shape

(2) Folded squ

(3) Bent

(4) Tetrahedra

66. The bond angle in the order:-

1 Mar 2026 Q060 Ans 2

English

ion) has a K_{sp}
he maximum
l be attained in
298 K is :-

0^{-2} M

10^{-3} M

MnO_4^- as an

$KMnO_4$ act as

II are correct.

II are incorrect.

$I_2 + H_2O$. The
in the above

60. Bond enthalpies for N – H, Cl – Cl, N ≡ N and H – Cl are 100 kJ/mol, 150 kJ/mol, 300 kJ/mol and 200 kJ/mol respectively than enthalpy change for reaction :-
$2NH_3(g) + 3Cl_2(g) \longrightarrow N_2(g) + 6HCl(g)$ is

(1) + 450 kJ

(2) – 450 kJ

(3) – 250 kJ

(4) + 250 kJ

61. The octet rule is not valid for the molecule :-

(1) CO_2 (2) H_2O

(3) O_2 (4) NO

62. Variable covalency is exhibited by:-

(1) P and S (2) N and O

(3) N and P (4) F and Cl

1 Mar 2026 Q067 Ans 4

English

8

67. **Assertion** :- N_2^+ is less stable than N_2^-

Reason :- N_2^+ has more electrons in antibonding orbitals.

(1) If both Assertion & Reason are True & the Reason is a correct explanation of the Assertion.

(2) If both Assertion & Reason are True but Reason is not a correct explanation of the Assertion.

(3) If Assertion is True but the Reason is False.

(4) If both Assertion & Reason are False.

68. Highest covalent character is present in :-

(1) CaF_2 (2) $CaCl_2$

(3) CaI_2 (4) $CaBr_2$

69. Aluminium is diagonally related to

(1) Li (2) Be

(3) C (4) B

73. Th nu

(1)

(3)

74. If Z valu

(1)

(3)

75. Mat

Co Ele	
(i)	
(ii)	
(iii)	
(iv)	

1 Mar 2026 Q074 Ans 4

& Reason are True & the xplanation of the Assertion.

Reason are True but Reason nation of the Assertion.

but the Reason is False.

Reason are False.

ter is present in :-

(2) $CaCl_2$

(4) $CaBr_2$

y related to

(2) Be

(4) B

following arrangements order of electron gain sign) of the given atomic

(1) Uns (2) Uuo

(3) Uno (4) Uus

74. If Z_{eff} value of boron is 'x' then calculate the Z_{eff} value of nitrogen atom (as per slater's rule) :

(1) x (2) x + 0.65

(3) x + 0.35 (4) x + 1.30

75. Match the column

Column-I Elements		Column-II Property	
(i)	Li	(A)	Most Acidic oxide
(ii)	Be	(B)	Most Metallic character
(iii)	C	(C)	Nature of oxide and hydroxide is similar to Al
(iv)	Cs	(D)	Highest IE_2

(1) (i) D (ii) C (iii) A (iv) B

(2) (i) D (ii) A (iii) C (iv) B

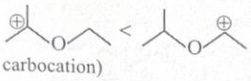
(3) (i) A (ii) C (iii) B (iv) D

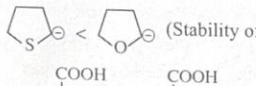
1 Mar 2026 Q078 Ans 3

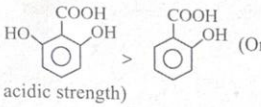
ALLEN®

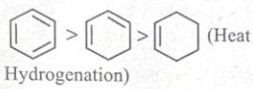
9

78. Identify correct statement :

(1)  (Stability of carbocation)

(2)  (Stability of carbanion)

(3)  (Order of acidic strength)

(4)  (Heat of Hydrogenation)

79. In which of the following compound C=O bond have maximum value of rotational energy barrier ?

(1)  (2) 

82. *Assertion :-* In 1-chloropropa isopropyl benz

Reason :- The form secondar

(1) Both asser is a correct

(2) Both asser NOT a cor

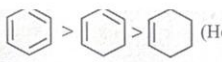
(3) Assertion

(4) Both asser

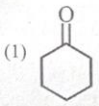
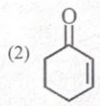
83.

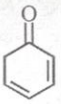
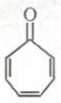
Colu (Free

1 Mar 2026 Q079 Ans 1

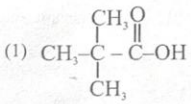
(4)  (Heat of Hydrogenation)

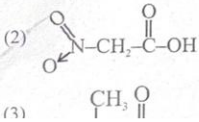
79. In which of the following compound C=O bond have maximum value of rotational energy barrier ?

(1)  (2) 

(3)  (4) 

80. Which of the following compound is most reactive toward decarboxylation?

(1) 

(2) 

(3)

NOT a cor

(3) Assertion

(4) Both asser

83.

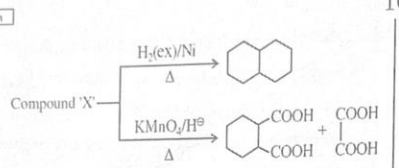
Colu (Free	
(A)	CH_3 —
(B)	$\dot{C}H_2$
(C)	
(D)	CH_2=C

Match column

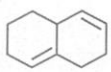
1 Mar 2026 Q084 Ans 2

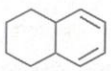
English

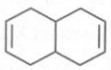
10

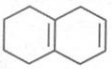
84. 

Identify compound 'X'.

(1) 

(2) 

(3) 

(4) 

85. Which of the following are correct :-

(1) (a)  (b) 

(position isomer)

87. N st

(1

(2

(3

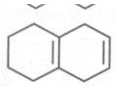
(4

88. W ele

(1)

(2)

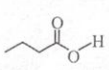
1 Mar 2026 Q085 Ans 3

(4) 

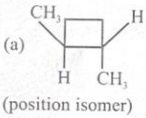
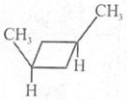
85. Which of the following are correct :-

(1) (a)  (b) 

(position isomer)

(2) (a)  (b) 

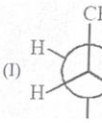
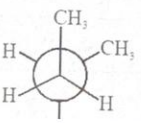
(functional group)

(3) (a)  (b) 

(position isomer)

(4) All are incorrect.

86. Which of the following best explains the reason for the relative stabilities of the conformers shown?

(I)  (II) 

(1)

(2)

(3)

(4)

89. In con Wh con

(1)

(2)

(3)

(4)

90. CH

1 Mar 2026 Q093 Ans 2

Human

(4) The majority of Bacteria are symbiotic

93. Which pair of the following belongs to Basidiomycetes ?

(1) Morchella and Mushrooms

(2) Bracketed fungi and Puffballs

(3) Puffballs and *Claviceps*

(4) *Neurospora* and *Puccinia*

94. T.O. Diener (1971) discovered a new infectious agent that was smaller than viruses. Consider the following statements about this infectious agent.

I. It causes potato spindle tuber disease (PSTD).

II. These are infectious RNA particles.

III. It lacks a protein coat.

IV. The molecular weight of its RNA is low.

The above statements are assigned to

(1) viruses

(2) viroids

(3) Generic na

(4) Generic ep

97. Read the fc

Gymnosperm :-

(A) The main p

woody.

(B) Roots of

bacterial associ

(C) The multic

two or more arc

(D) The mal

developed on th

(1) Statements

statement I

(2) Statements

statement (

(3) Statements

1 Mar 2026 Q109 Ans 4

(3) Epidermis, pericycle, endodermis, cortex

(4) Cortex, Epidermis, endodermis, pericycle.

109. What will be absent in wood of gymnosperm?

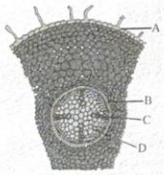
(1) Vessel

(2) Trachieds

(3) Companion cell

(4) Both (1) and (3)

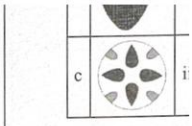
110. Find out correct option for given figure?



(1) A-Epidermis, B-Endodermis, C-Phloem, D-Xylem

(2) A-Endodermis, B-Epidermis, C-Xylem, D-Phloem

(3) A-Epidermis, B-Cortex,



(1) a-i-K, b-ii-

(2) a-i-K, b-iii-

(3) a-iii-K, b-ii

(4) a-ii-L, b-i-

113. Read the follow

many are correc

(A) In roots the

between xylem

tissue.

(B) All the

endodermis suc

and pith constitu

(C) The 'ring' ar

a characteristic

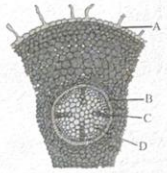
(D) In leaves, t

1 Mar 2026 Q113 Ans 3

(3) Companion cell

(4) Both (1) and (3)

110. Find out correct option for given figure?



(1) A-Epidermis, B-Endodermis, C-Phloem, D-Xylem

(2) A-Endodermis, B-Epidermis, C-Xylem, D-Phloem

(3) A-Epidermis, B-Cortex, C-Phloem, D-Xylem

(4) A-Epidermis, B-Endodermis, C-Xylem, D-Phloem

(3) a-iii-K, b-ii

(4) a-ii-L, b-i-

113. Read the follow

many are correc

(A) In roots the

between xylem

tissue.

(B) All the

endodermis suc

and pith constitu

(C) The 'ring' ar

a characteristic

(D) In leaves, t

walled chloropl

mesophyll.

(1) Three (2)

1 Mar 2026 Q127 Ans 1

English

127. **Assertion:** Glycolysis occur in cytoplasm.
Reason: Enzyme for glycolysis are found in cytoplasm, it is common in both aerobic & anaerobic respiration.

(1) Both Assertion & Reason are True & the Reason is a correct explanation of the Assertion.

(2) Both Assertion & Reason are True but Reason is not a correct explanation of the Assertion.

(3) Assertion is True but the Reason is False.

(4) Both Assertion & Reason are False.

128. In EMP pathway (choose the correct one) :-

(1) Glucose undergoes complete oxidation to form two molecules of pyruvic acid

(2) Glucose undergoes complete oxidation to form one molecule of pyruvic acid

(3) Glucose undergoes partial oxidation to form one molecule of pyruvic acid

(4) Glucose undergoes partial oxidation to form two molecules of pyruvic acid

129. Cytochrome bc_1 complex are found in :

(1) Outer wall of mitochondria

132. Stud

and (

MER

(1)

(2)

(3)

(4)

133. Whic

1 Mar 2026 Q130 Ans 2

(1) Auxin (2) Gibberellin

(3) Cytokinin (4) Ethylene

13. **Assertion :-** Ethylene helps the plants to increase their absorption surface.
Reason :- Ethylene enhances the respiration rate during ripening of the fruits, which is called respiratory climatic.

(1) Both Assertion & Reason are True & the Reason is a correct explanation of the Assertion.

(2) Both Assertion & Reason are True but Reason is not a correct explanation of the Assertion.

(3) Assertion is True but the Reason is False.

(4) Both Assertion & Reason are False.

(3) 6

(4) 6

134. Out o

(A) C

as cor

(B) C

conce

(1) C

(2) B

(3) C

(4) B

1 Mar 2026 Q137 Ans 2

(1) Ctenophora (2) Echinodermata

(3) Mollusca (4) Both 1 and 2

137. Number of gills in *Exocoetus* :

(1) 12 (2) 8 (3) 4 (4) 16

138. **Assertion :** In *Nereis* the body is externally and internally divided into segments with a serial repetition of at least some organs.
Reason : *Nereis* is metamerically segmented animal.

(1) Both Assertion & Reason are True & the Reason is a correct explanation of the Assertion.

(2) Both Assertion & Reason are True but Reason is not a correct explanation of the Assertion.

(3) Assertion is True but the Reason is False.

(4) Both Assertion & Reason are False.

139. Mark the incorrect statement with reference to sponges :-

(1) Digestion is intracellular

(2) Sexes are not separate i.e. hermaphrodite

141. Which of the fc

animal with it's

	Animal
1	*Pleurobrach*
2	*Obelia*
3	*Planaria*
4	*Ctenoplana*

142. Which of the

Chondrichthyes

(1) Fertilizatio

(2) Four pairs

(3) Operculum

(4) Placoid sca

143. Which of the fo

mainly beneath

(1) Cartilage

(2) Adipose co

1 Mar 2026 Q149 Ans 3

arranged in a series
ubic millimeter) in

→ Eosinophil →
ophil → Platelets

l → Monocyte →
ophil → Platelets

l → Monocyte →
ets → Neutrophil

il → Lymphocyte
rophil → Platelets

above information.

(1) B^+ (2) B^- (3) A^+ (4) A^-

149. Time duration between DUP and LUBB sound is:

(1) 0.3 seconds (2) 0.1 seconds

(3) 0.5 seconds (4) 0.8 seconds

150. The partial pressure of O_2 in pulmonary vein is :-

(1) 159 mm Hg (2) 40 mm Hg

(3) 45 mm Hg (4) 95 mm Hg

151. Which of the following set of biological marriages may cause Rh incompatibility in feetus

(1) A^+ boy and A^+ girl

(2) A^+ boy and A^- girl

(3) O^+ boy and O^+ girl

(4) O^- boy and O^+ girl

1 Mar 2026 Q155 Ans 1

(1) Bowman's capsule (2) PCT

(3) Loop of Henle (4) DCT

159. How much CO_2 is removed by our lungs?

(1) approximately 200 ml/minute

(2) 200 ml/hour

(3) 18 litres/day

(4) 200 litre/minute

160. **Assertion** : Proximal convulated tubule help in maintain the pH and ionic balance of our body fluid.
Reason : H^+ and NH_3 are actively secreted and HCO_3^- reabsorb through PCT.
Read the above assertion and Reason carefully and answer accordingly.

(1) Assertion and Reason both are correct and Reason is correct explanation of Assertion.

(2) Assertion and Reason both are correct and Reason is not correct explanation of assertion.

(3) Assertion is incorrect, Reason is correct.

(2) Na
(3) K^+
(4) Ca

163. The in
group
hippoca

(1) Re
(2) Cc
(3) Li
(4) Ar

164. Read th
(A) In
channe
at insid
(B) +1
state ge
(C) Na
which
(D) Th
is calle

1 Mar 2026 Q164 Ans 3

vulated tubule help in
dance of our body fluid.
actively secreted and
T.
nd Reason carefully and

n both are correct and
lanation of Assertion.
both are correct and
xplanation of assertion.
Reason is correct.
Reason is incorrect.
event of micturition is

n the wall of urinary
CNS
th urine and becomes

or messages to initiate

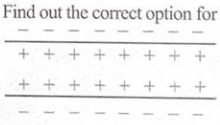
(3) Limbic lobe/limbic system

(4) Arbor vitae

164. Read the following **statements** (A–D) :
(A) In the resting phase of nerve sodium ion channel are closed and potential is found +70mv at inside
(B) +10 mv potential difference from resting state generate threshold stimulus
(C) Na^+ increases more in ECF in depolarisation which cause generation of action potential
(D) The time taken for restoration of resting state is called refractory period
How many of above statements are incorrect?

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

165. Following diagram shows a stage of nerve conduction. Find out the correct option for this stage :-



(1) Polarisation :- due to more permeability of K^+ and nearly impermeable for Na^+.