BSF
HC (RO)

Previous Year Paper
29 Aug, 2023 Shift 1

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BORDER SECURITY FORCE

Participant ID	
Participant Name	
Test Center Name	
Test Date	29/08/2023
Test Time	8:30 AM - 10:30 AM
Subject	Head Constable (Radio Operator)

Section : **Physics**

Q.1 **A hollow cylinder and a solid cylinder having masses in the ratio 1 : 2 and having the same radii are made to rotate along their central axis. Both are acted upon by the same torque when they are at rest. Which of the following will have a more angular velocity when the torque has been removed from both after the same time?**

Ans

✔ 1. Same for both

✘ 2. Depends on the ratio of the mass to radius

✘ 3. Hollow cylinder

✘ 4. Solid cylinder

Question ID : **630680334346**
Option 1 ID : **6306801300659**
Option 2 ID : **6306801300660**
Option 3 ID : **6306801300657**
Option 4 ID : **6306801300658**
Status : **Answered**
Chosen Option : **1**

Q.2 **A vessel contains ideal gas and it has a volume of $28m^3$. The total number of molecules N in it at a temperature of 27° C and a pressure of 3.0×10^5 Pa is about (take Boltzmann constant = 1.4×10^{-23} J/ K):**

Ans

✔ 1. 6×10^{29}

✘ 2. 6×10^{27}

✘ 3. 6×10^{28}

✘ 4. 6×10^{30}

Question ID : **630680334352**
Option 1 ID : **6306801300683**
Option 2 ID : **6306801300681**
Option 3 ID : **6306801300682**
Option 4 ID : **6306801300684**
Status : **Answered**
Chosen Option : **2**

Q.3 **A block of mass 3 kg is attached with a spring of spring constant 1200 N/m. When the block is displaced to a distance 15 cm from its equilibrium position and released, it executes a simple harmonic motion. Then the maximum potential energy of the block is:**

Ans
✗ 1. 16.5 J
✓ 2. 13.5 J
✗ 3. 19.5 J
✗ 4. 10.5 J

Question ID : **630680334359**
Option 1 ID : **6306801300711**
Option 2 ID : **6306801300710**
Option 3 ID : **6306801300712**
Option 4 ID : **6306801300709**
Status : **Not Answered**
Chosen Option : **--**

Q.4 **A pipe, 60.0 cm long is closed at one end. Which harmonic mode of the pipe resonates a 412.5 Hz source? Take the speed of sound in air as 330 m/s.**

Ans
✗ 1. 1^{st} harmonic
✗ 2. 7^{th} harmonic
✗ 3. 5^{th} harmonic
✓ 4. 3^{rd} harmonic

Question ID : **630680334360**
Option 1 ID : **6306801300713**
Option 2 ID : **6306801300716**
Option 3 ID : **6306801300715**
Option 4 ID : **6306801300714**
Status : **Answered**
Chosen Option : **4**

Q.5 **Which of the following spectral series lies in the ultraviolet region of a hydrogen spectrum?**

Ans
✗ 1. Paschen series
✗ 2. Balmer series
✓ 3. Lyman series
✗ 4. Brackett series

Question ID : **630680334412**
Option 1 ID : **6306801300923**
Option 2 ID : **6306801300921**
Option 3 ID : **6306801300922**
Option 4 ID : **6306801300924**
Status : **Answered**
Chosen Option : **2**

Q.6 **The horizontal component of the earth's magnetic field at a certain place is 5.0×10^{-5} T and the direction of the field is from the geographic south to the geographic north. If a very long straight conductor is placed on a horizontal table and is carrying a steady current of 3 A from east to west, then the force per unit length on the conductor is:**

Ans
✔ 1. 1.5×10^{-4} N/m

✘ 2. 1.0×10^{-4} N/m

✘ 3. 2.0×10^{-4} N/m

✘ 4. 2.5×10^{-4}N/m

Question ID : **630680334390**
Option 1 ID : **6306801300834**
Option 2 ID : **6306801300833**
Option 3 ID : **6306801300835**
Option 4 ID : **6306801300836**
Status : **Answered**
Chosen Option : **1**

Q.7 **Rubber is an elastomer. Which of the following holds true for rubber?**

Ans
✔ 1. Rubber does not obey Hooke's law over most of the region and there is no well-defined plastic region.

✘ 2. Rubber does not obey Hooke's law over most of the region but a well-defined plastic region exists.

✘ 3. Rubber obeys Hooke's law over most of the region and a well-defined plastic region exists.

✘ 4. Rubber obeys Hooke's law over most of the region but a well-defined plastic region does not exist.

Question ID : **630680334344**
Option 1 ID : **6306801300652**
Option 2 ID : **6306801300649**
Option 3 ID : **6306801300650**
Option 4 ID : **6306801300651**
Status : **Answered**
Chosen Option : **4**

Q.8 **Consider a tightly wound 500 turn coil of radius 20 cm, carrying a current of 2 A. The magnitude of the magnetic field at the centre of the coil is $n\pi \times 10^{-3}$T. Then n is:**

Ans
✘ 1. 3

✘ 2. 2

✔ 3. 1

✘ 4. 4

Question ID : **630680334388**
Option 1 ID : **6306801300827**
Option 2 ID : **6306801300826**
Option 3 ID : **6306801300825**
Option 4 ID : **6306801300828**
Status : **Answered**
Chosen Option : **4**

Q.9 A flux density of 10 Wb/ m^2 is passing through a circular circuit of radius 10 cm with 150 turns and the circuit is carrying a current of 10.0 A. Then the self inductance of the circuit is:

Ans
✔ 1. 1.5π H

✘ 2. 3.5π H

✘ 3. 2.5π H

✘ 4. 0.5π H

Question ID : **630680334403**
Option 1 ID : **6306801300886**
Option 2 ID : **6306801300888**
Option 3 ID : **6306801300887**
Option 4 ID : **6306801300885**
Status : **Not Answered**
Chosen Option : **--**

Q.10 For a uniform electric field $\vec{E}$ along the x-axis, the equipotential surfaces are planes:

Ans
✔ 1. parallel to the y-z plane

✘ 2. parallel to the x-y plane

✘ 3. perpendicular to the y-z plane

✘ 4. parallel to the x-z plane

Question ID : **630680334365**
Option 1 ID : **6306801300734**
Option 2 ID : **6306801300736**
Option 3 ID : **6306801300735**
Option 4 ID : **6306801300733**
Status : **Answered**
Chosen Option : **2**

Q.11 **If the last band of a carbon resistor is silver, then its tolerance level is:**

Ans
✔ 1. 10%

✘ 2. 2%

✘ 3. 12%

✘ 4. 5%

Question ID : **630680334376**
Option 1 ID : **6306801300779**
Option 2 ID : **6306801300777**
Option 3 ID : **6306801300780**
Option 4 ID : **6306801300778**
Status : **Answered**
Chosen Option : **1**

Q.12 Two charges of +4 μC and −4 μC are placed at a distance of 30 cm to form an electric dipole. The maximum torque experienced by the dipole, if it is placed in an electric field of 5 $\times 10^6$ N/C is:

Ans
✗ 1. 2 N m
✗ 2. 4 N m
✓ 3. 6 N m
✗ 4. 8 N m

Question ID : **630680334369**
Option 1 ID : **6306801300749**
Option 2 ID : **6306801300750**
Option 3 ID : **6306801300751**
Option 4 ID : **6306801300752**
Status : **Answered**
Chosen Option : **3**

Q.13 An EMF of 3.76 V is induced in a coil when the current in it is changing from 4 A to 12A in 6s. The self-inductance of the coil is:

Ans
✗ 1. 4.41 H
✗ 2. 1.41 H
✗ 3. 5.64 H
✓ 4. 2.82 H

Question ID : **630680334402**
Option 1 ID : **6306801300883**
Option 2 ID : **6306801300881**
Option 3 ID : **6306801300884**
Option 4 ID : **6306801300882**
Status : **Answered**
Chosen Option : **4**

Q.14 An electron in a hydrogen atom (Bohr model) makes a transition from n = 3 state to n = 1 state. The frequency of the emitted photon is (take R = 1.0×10^7/m):

Ans
✗ 1. 1.67×10^{15} Hz
✗ 2. 4.67×10^{15} Hz
✓ 3. 2.67×10^{15} Hz
✗ 4. 3.67×10^{15} Hz

Question ID : **630680334415**
Option 1 ID : **6306801300933**
Option 2 ID : **6306801300936**
Option 3 ID : **6306801300934**
Option 4 ID : **6306801300935**
Status : **Not Answered**
Chosen Option : **--**

Q.15 **Consider a device with resistance R, to which a power P is to be delivered via transmission cables having a resistance Rc. If a current I is passing through the device by a voltage V, then the power dissipated in the connecting wires is:**

Ans

✔ 1. inversely proportional to V^2

✘ 2. proportional to V^2

✘ 3. inversely proportional to V

✘ 4. proportional to V

Question ID : **630680334382**
Option 1 ID : **6306801300804**
Option 2 ID : **6306801300802**
Option 3 ID : **6306801300803**
Option 4 ID : **6306801300801**
Status : **Answered**
Chosen Option : **4**

Q.16 If in a current carrying conductor $\vec{j}$, $\vec{E}$ and σ denote the current density, uniform electric field in the conductor along the current density and conductivity, respectively, then which of the following relations holds?

Ans

✔ 1. $\vec{j} = \sigma\vec{E}$

✘ 2. $\vec{E}\sigma = \vec{j}$

✘ 3. $\vec{E} = \sigma\vec{j}$

✘ 4. $\vec{E}.\vec{j} = \sigma$

Question ID : **630680334374**
Option 1 ID : **6306801300769**
Option 2 ID : **6306801300772**
Option 3 ID : **6306801300770**
Option 4 ID : **6306801300771**
Status : **Answered**
Chosen Option : **4**

Q.17 A slab of material of dielectric constant 12 has the same area A as that of the area of the plates of a parallel-plate capacitor. But the slab has a thickness d/4, where d is the separation of the plates. If the slab is fully inserted between the plates, the capacitance changes from C_0 (free space capacitance of the parallel plate capacitor) to C and C/C_0 is = 48/M. Then M is:

Ans

✔ 1. 37

✘ 2. 47

✘ 3. 27

✘ 4. 57

Question ID : **630680334371**
Option 1 ID : **6306801300758**
Option 2 ID : **6306801300759**
Option 3 ID : **6306801300757**
Option 4 ID : **6306801300760**
Status : **Not Answered**
Chosen Option : **--**

Q.18 Two light waves A and B of wavelengths 400 nm and 500 nm, respectively, are scattered. The ratio of the intensities of these two light waves $I_A : I_B$ is:

Ans

✗ 1. $(\frac{4}{5})^2$

✗ 2. $(\frac{4}{5})^4$

✓ 3. $(\frac{5}{4})^4$

✗ 4. $(\frac{5}{4})^2$

Question ID : **630680334406**
Option 1 ID : **6306801300897**
Option 2 ID : **6306801300899**
Option 3 ID : **6306801300900**
Option 4 ID : **6306801300898**
Status : **Answered**
Chosen Option : **1**

Q.19 **If the radioactive decay constant of a radioactive substance is 0.077 per year, what is the half-life of the substance (ln2 = 0.693)?**

Ans

✓ 1. 9 years

✗ 2. 8 years

✗ 3. 6 years

✗ 4. 7 years

Question ID : **630680334416**
Option 1 ID : **6306801300940**
Option 2 ID : **6306801300939**
Option 3 ID : **6306801300937**
Option 4 ID : **6306801300938**
Status : **Not Answered**
Chosen Option : **--**

Q.20 The speed of a longitudinal wave in a metal bar with mass density $\rho = 2.7 \times 10^3$ kg/m^3 and Young modulus of its material Y = 9×10^{10} Pa is given by:

Ans

✗ 1. $\frac{2 \times 10^4}{\sqrt{3}}$ m/s

✗ 2. 3.33×10^7 m/s

✗ 3. 6.66×10^7 m/s

✓ 4. $\frac{10^4}{\sqrt{3}}$ m/s

Question ID : **630680334354**
Option 1 ID : **6306801300692**
Option 2 ID : **6306801300689**
Option 3 ID : **6306801300691**
Option 4 ID : **6306801300690**
Status : **Not Answered**
Chosen Option : **--**

Q.21 **Rambabu holds a bucket of 30 kg by applying a 30 N force. Rambabu first moves a horizontal distance of 20 m and then climbs up a vertical distance of 30 m. The total work done by Rambabu is:**

Ans

✗ 1. 600 J

✗ 2. 1200 J

✓ 3. 900 J

✗ 4. 1500 J

Question ID : **630680334348**
Option 1 ID : **6306801300665**
Option 2 ID : **6306801300667**
Option 3 ID : **6306801300666**
Option 4 ID : **6306801300668**
Status : **Answered**
Chosen Option : **3**

Q.22 A spherical drop of mercury of radius R = 20 cm forms a capacitor with capacitance $C = 4\pi\epsilon_0 R$. If 27 such drops combine to form a single large drop, then the capacitance of the large drop will be:

Ans

✗ 1. 4 C

✗ 2. 5 C

✗ 3. 2 C

✓ 4. 3 C

Question ID : **630680334373**
Option 1 ID : **6306801300767**
Option 2 ID : **6306801300768**
Option 3 ID : **6306801300765**
Option 4 ID : **6306801300766**
Status : **Answered**
Chosen Option : **4**

Q.23 PV=constant denotes:

Ans

✗ 1. Charles's law

✗ 2. Pascal's law

✓ 3. Boyle's law

✗ 4. Dalton's law of partial pressure

Question ID : **630680334350**
Option 1 ID : **6306801300673**
Option 2 ID : **6306801300675**
Option 3 ID : **6306801300676**
Option 4 ID : **6306801300674**
Status : **Answered**
Chosen Option : **3**

Q.24 Consider a battery with an EMF of 20 V and an internal resistance of 0.5 Ω is connected in series to a 3.5 Ω resistor. Then the terminal voltage of the battery is:

Ans

✓ 1. 17.5 V

✗ 2. 18.5 V

✗ 3. 16.5 V

✗ 4. 15.5 V

Question ID : **630680334378**
Option 1 ID : **6306801300787**
Option 2 ID : **6306801300788**
Option 3 ID : **6306801300786**
Option 4 ID : **6306801300785**
Status : **Not Answered**
Chosen Option : **--**

Q.25 Lenz's law is a consequence of:

Ans

✓ 1. law of conservation of energy

✗ 2. law of conservation of angular momentum

✗ 3. law of conservation of linear momentum

✗ 4. law of conservation of potential energy

Question ID : **630680334385**
Option 1 ID : **6306801300815**
Option 2 ID : **6306801300814**
Option 3 ID : **6306801300813**
Option 4 ID : **6306801300816**
Status : **Answered**
Chosen Option : **1**

Q.26 Suppose a prism is made of a material whose refractive index is $\sqrt{3}$ and the angle of prism is 60°. Then the angle of minimum of deviation is:

Ans
✗ 1. 30°
✗ 2. 45°
✓ 3. 60°
✗ 4. 90°

Question ID : **630680334411**
Option 1 ID : **6306801300917**
Option 2 ID : **6306801300918**
Option 3 ID : **6306801300919**
Option 4 ID : **6306801300920**
Status : **Answered**
Chosen Option : **3**

Q.27 Raju (mass 80 kg) is standing on a frictionless plane surface. He kicks a football of mass 0.5 kg lying near his feet, giving it a velocity of (8.0 m/s)$\hat{\imath}$. The velocity of Raju after the kick is ($\hat{\imath}$ is the unit vector along the x-axis):

Ans
✗ 1. $-0.5\ m/s\hat{\imath}$
✗ 2. $0.5\ m/s\hat{\imath}$
✗ 3. $0.05\ m/s\hat{\imath}$
✓ 4. $-0.05\ m/s\hat{\imath}$

Question ID : **630680334343**
Option 1 ID : **6306801300648**
Option 2 ID : **6306801300647**
Option 3 ID : **6306801300646**
Option 4 ID : **6306801300645**
Status : **Answered**
Chosen Option : **4**

Q.28 An AC voltage is applied to a pure inductor. The current in the inductor _____ the voltage by _____.

Ans
✗ 1. leads, π
✗ 2. lags, π
✗ 3. leads, $\frac{\pi}{2}$
✓ 4. lags, $\frac{\pi}{2}$

Question ID : **630680334397**
Option 1 ID : **6306801300863**
Option 2 ID : **6306801300861**
Option 3 ID : **6306801300864**
Option 4 ID : **6306801300862**
Status : **Answered**
Chosen Option : **3**

Q.29 **The potential at a point P due to a charge Q is 60 V. Hence, the work done required to bring a charge of 5 C from infinity to the point P is:**

Ans
✗ 1. 12 J
✗ 2. 24 J
✓ 3. 300 J
✗ 4. 100 J

Question ID : **630680334364**
Option 1 ID : **6306801300729**
Option 2 ID : **6306801300732**
Option 3 ID : **6306801300731**
Option 4 ID : **6306801300730**
Status : **Answered**
Chosen Option : **3**

Q.30 Consider a wire of length 10 m is bent to form a circular loop of one turn. The magnetic moment produced by this circular loop is $\frac{n}{\pi}$, A m^2 if the current through the loop is 4 A. Then n is:

Ans
✓ 1. 100
✗ 2. 50
✗ 3. 150
✗ 4. 200

Question ID : **630680334395**
Option 1 ID : **6306801300854**
Option 2 ID : **6306801300853**
Option 3 ID : **6306801300855**
Option 4 ID : **6306801300856**
Status : **Answered**
Chosen Option : **1**

Q.31 **Four objects A, B, C and D are moving along y-axis. Their position y (in m) changes with time t (in s) as below:**

Object A: $y = 6.0\ t - 2.0\ t^3$

Object B: $y = 5.0\ t^2 + 2.0\ t^4$

Object C: $y = 2.0 + 5.0\ t + 1.0\ t^2$

Object D: $y = 1.0 + 3.0\ t^3$

Which object is moving with a constant acceleration?

Ans
✓ 1. C
✗ 2. D
✗ 3. B
✗ 4. A

Question ID : **630680334341**
Option 1 ID : **6306801300639**
Option 2 ID : **6306801300640**
Option 3 ID : **6306801300638**
Option 4 ID : **6306801300637**
Status : **Answered**
Chosen Option : **1**

Q.32 If G, M_E , and R_E denote the universal gravitational constant, the mass of the earth, and the radius of the earth, respectively, then the acceleration of a body due to gravitation on the earth's surface, g, is given by:

Ans

✗ 1. $g = \frac{GR_E}{M_E}$

✗ 2. $g = \frac{GR_E}{M_E^2}$

✗ 3. $g = \frac{GM_E}{R_E}$

✓ 4. $g = \frac{GM_E}{R_E^2}$

Question ID : **630680334338**
Option 1 ID : **6306801300627**
Option 2 ID : **6306801300628**
Option 3 ID : **6306801300625**
Option 4 ID : **6306801300626**
Status : **Not Answered**
Chosen Option : **--**

Q.33 **If a pin is placed in front of the converging lens at a distance of 40 cm, the converging lens forms an image that is real, inverted, and equal to the size of the object. Then the power of the lens is:**

Ans

✗ 1. −10.0 D

✗ 2. +10.0 D

✓ 3. +5.0 D

✗ 4. −5.0 D

Question ID : **630680334409**
Option 1 ID : **6306801300912**
Option 2 ID : **6306801300911**
Option 3 ID : **6306801300909**
Option 4 ID : **6306801300910**
Status : **Answered**
Chosen Option : **4**

Q.34 The magnetic moment of a current carrying coil is 20 A m^2, the field at the centre of the coil is 4×10^{-2} T and the moment of inertia of the coil is 3.6 kg m^2. If the coil is rotated by 90°, then the angular speed acquired by the coil is:

Ans

✗ 1. $\frac{4}{3}$ rad/s

✓ 2. $\frac{2}{3}$ rad/s

✗ 3. $\frac{1}{3}$ rad/s

✗ 4. $\frac{5}{3}$ rad/s

Question ID : **630680334393**
Option 1 ID : **6306801300847**
Option 2 ID : **6306801300846**
Option 3 ID : **6306801300845**
Option 4 ID : **6306801300848**
Status : **Not Answered**
Chosen Option : **--**

Q.35 Suppose a current $I = I_0 \cos(\omega t + \varphi)$ is passing through a LCR circuit. At resonance, the power dissipated in this LCR circuit is:

Ans

✗ 1. Minimum power

✗ 2. $\frac{\text{Maximum power}}{\sqrt{3}}$

✓ 3. Maximum power

✗ 4. $\sqrt{2} \times$ Minimum power

Question ID : **630680334396**
Option 1 ID : **6306801300860**
Option 2 ID : **6306801300858**
Option 3 ID : **6306801300859**
Option 4 ID : **6306801300857**
Status : **Answered**
Chosen Option : **4**

Q.36 Two wires A and B of infinite length are placed at x = 3 cm and x = −3 cm. Consider each of them is carrying a current of 2 A in an upward direction. The force per unit length experienced by A due to B is $\frac{2n}{3} \times 10^{-5}$N. Then n is:

Ans

✗ 1. 1

✓ 2. 2

✗ 3. 4

✗ 4. 3

Question ID : **630680334394**
Option 1 ID : **6306801300849**
Option 2 ID : **6306801300850**
Option 3 ID : **6306801300852**
Option 4 ID : **6306801300851**
Status : **Answered**
Chosen Option : **1**

Q.37 A particle is moving in simple harmonic motion according to x (t) = 1.5 sin(6π t), where x is in metres and t is in seconds. Its maximum velocity (in m/s) is:

Ans
✔ 1. 9π
✘ 2. 12π
✘ 3. 6π
✘ 4. 3π

Question ID : **630680334356**
Option 1 ID : **6306801300699**
Option 2 ID : **6306801300700**
Option 3 ID : **6306801300698**
Option 4 ID : **6306801300697**
Status : **Answered**
Chosen Option : **1**

Q.38 Consider a long solenoid of length 5 m, and radius 0.1 m, and it has 2000 turns per unit length. This solenoid is carrying a current of 2 A. The magnetic energy stored in this solenoid is $n\pi^2 \times 10^{-3}$J. Then n is:

Ans
✘ 1. 120
✘ 2. 200
✘ 3. 80
✔ 4. 160

Question ID : **630680334405**
Option 1 ID : **6306801300894**
Option 2 ID : **6306801300896**
Option 3 ID : **6306801300893**
Option 4 ID : **6306801300895**
Status : **Not Answered**
Chosen Option : **--**

Q.39 If a dielectric medium of dielectric constant 16 is inserted in a parallel plate capacitor, then its capacitance changes to C with respect to that of the capacitance of the same parallel plate capacitor in free space C_0 . Then $\frac{C}{C_0}$ is:

Ans
✔ 1. 16
✘ 2. 48
✘ 3. 32
✘ 4. 8

Question ID : **630680334367**
Option 1 ID : **6306801300742**
Option 2 ID : **6306801300744**
Option 3 ID : **6306801300743**
Option 4 ID : **6306801300741**
Status : **Answered**
Chosen Option : **1**

Q.40 **Suppose a cell is connected across a high resistance voltmeter and it is showing a reading of 12.0 V. Now the terminals of the same cell is connected to a resistance of 6 Ω and the same voltmeter reading drops to 8 V. Then the internal resistance of the cell is:**

Ans
✔ 1. 3 Ω
✘ 2. 2 Ω
✘ 3. 4 Ω
✘ 4. 1 Ω

Question ID : **630680334384**
Option 1 ID : **6306801300811**
Option 2 ID : **6306801300810**
Option 3 ID : **6306801300812**
Option 4 ID : **6306801300809**
Status : **Answered**
Chosen Option : **2**

Section : **Chemistry**

Q.1 **The SI unit of viscosity coefficient is:**

Ans
✔ 1. newton second per square metre
✘ 2. newton second per cube metre
✘ 3. newton second per nano metre
✘ 4. newton second per metre

Question ID : **630680333847**
Option 1 ID : **6306801298663**
Option 2 ID : **6306801298662**
Option 3 ID : **6306801298664**
Option 4 ID : **6306801298661**
Status : **Answered**
Chosen Option : **1**

Q.2 **What are the shapes of BrF_5 and XeF_4 molecules, respectively?**

Ans
✘ 1. Trigonal bipyramidal and square planar
✘ 2. Octahedral and tetrahedral
✘ 3. Octahedral and octahedral
✔ 4. Square pyramidal and square planar

Question ID : **630680333842**
Option 1 ID : **6306801298643**
Option 2 ID : **6306801298642**
Option 3 ID : **6306801298641**
Option 4 ID : **6306801298644**
Status : **Answered**
Chosen Option : **3**

Q.3 **Cinnabar is the ore of _____.**

Ans
✗ 1. silver
✓ 2. mercury
✗ 3. cadmium
✗ 4. platinum

Question ID : **630680333870**
Option 1 ID : **6306801298753**
Option 2 ID : **6306801298756**
Option 3 ID : **6306801298754**
Option 4 ID : **6306801298755**
Status : **Answered**
Chosen Option : **2**

Q.4 **Which of the following decreasing orders is correct with respect to their electron gain enthalpy?**

Ans
✓ 1. H > Li > Na > K > Rb
✗ 2. Li > H > Na > K > Rb
✗ 3. Li > Na > K > Rb > H
✗ 4. Rb > K > Na > Li > H

Question ID : **630680333874**
Option 1 ID : **6306801298772**
Option 2 ID : **6306801298771**
Option 3 ID : **6306801298769**
Option 4 ID : **6306801298770**
Status : **Answered**
Chosen Option : **4**

Q.5 **What is the major product formed when methyl phenyl ether undergoes Friedel-Craft acylation?**

Ans
✓ 1. 4-methoxyacetophenone
✗ 2. 2-methoxytoluene
✗ 3. 4-methoxytoluene
✗ 4. 2-methoxyacetophenone

Question ID : **630680333860**
Option 1 ID : **6306801298716**
Option 2 ID : **6306801298715**
Option 3 ID : **6306801298714**
Option 4 ID : **6306801298713**
Status : **Answered**
Chosen Option : **2**

Q.6 At equilibrium, the concentrations of $N_2 = 3.0 \times 10^{-3}$ M, $O_2 = 4.2 \times 10^{-3}$ M and NO = 2.8×10^{-3} M in a sealed vessel at 800K. What will be K_c for the reaction $N_2(g) + O_2(g) \rightleftharpoons 2NO(g)$?

Ans
✗ 1. 0.178
✓ 2. 0.622
✗ 3. 1.867
✗ 4. 2.471

Question ID : **630680333863**
Option 1 ID : **6306801298728**
Option 2 ID : **6306801298727**
Option 3 ID : **6306801298725**
Option 4 ID : **6306801298726**
Status : **Not Answered**
Chosen Option : **--**

Q.7 Hydrogen gas is NOT evolved when a metal reacts with nitric acid. It is because nitric acid is a _____

Ans
✓ 1. strong oxidising agent
✗ 2. bleaching agent
✗ 3. strong reducing agent
✗ 4. denaturation agent

Question ID : **630680333872**
Option 1 ID : **6306801298762**
Option 2 ID : **6306801298764**
Option 3 ID : **6306801298761**
Option 4 ID : **6306801298763**
Status : **Answered**
Chosen Option : **3**

Q.8 Which of the following statements is INCORRECT with respect to oxidation and reduction reactions?

Ans
✗ 1. $ZnO + C \rightarrow Zn + CO$ undergoes redox reaction
✗ 2. $2Cu + O_2 \rightarrow 2CuO$ undergoes only oxidation
✓ 3. $CuO + H_2 \rightarrow Cu + H_2O$ undergoes only reduction
✗ 4. $MnO_2 + 4HCl \rightarrow MnCl_2 + 2H_2O + Cl_2$ undergoes redox reaction

Question ID : **630680333868**
Option 1 ID : **6306801298746**
Option 2 ID : **6306801298748**
Option 3 ID : **6306801298747**
Option 4 ID : **6306801298745**
Status : **Answered**
Chosen Option : **3**

Q.9 **Which of the following statement is correct with respect to gaseous state?**

Ans
✗ 1. Gases are low compressible

✓ 2. Gases exert pressure equally in all directions

✗ 3. Gases have much higher density than the solids and liquids

✗ 4. The volume and the shape of gases are fixed

Question ID : **630680333845**
Option 1 ID : **6306801298655**
Option 2 ID : **6306801298653**
Option 3 ID : **6306801298654**
Option 4 ID : **6306801298656**
Status : **Answered**
Chosen Option : **2**

Q.10 **What is the major product formed when but-2-yne reacts with water in the presence of warming with mercuric sulphate and dilute sulphuric acid at 333°K?**

Ans
✗ 1. Propan-2-one

✗ 2. Ethan-1-al

✗ 3. Butan-1-al

✓ 4. Butan-2-one

Question ID : **630680333853**
Option 1 ID : **6306801298687**
Option 2 ID : **6306801298686**
Option 3 ID : **6306801298685**
Option 4 ID : **6306801298688**
Status : **Not Answered**
Chosen Option : **--**

Q.11 **Which of the following compounds undergoes thermal decomposition reaction to form quick lime and carbon dioxide?**

Ans
✓ 1. Limestone

✗ 2. Slacked lime

✗ 3. Lead nitrate

✗ 4. Backing soda

Question ID : **630680333866**
Option 1 ID : **6306801298740**
Option 2 ID : **6306801298738**
Option 3 ID : **6306801298737**
Option 4 ID : **6306801298739**
Status : **Answered**
Chosen Option : **1**

Q.12 What is the standard electrode potential (in V) of the reaction

$Fe^{2+} + 2e^- \rightarrow Fe(s)$ at 298 K?

Ans
✗ 1. Equal to zero
✗ 2. Greater than zero and less than one
✓ 3. Less than zero
✗ 4. Higher than two

Question ID : **630680333855**
Option 1 ID : **6306801298695**
Option 2 ID : **6306801298693**
Option 3 ID : **6306801298694**
Option 4 ID : **6306801298696**
Status : **Answered**
Chosen Option : **1**

Q.13 **Butyl chloride, on reduction with zinc and dilute hydrochloric acid, gives _____.**

Ans
✗ 1. octane
✓ 2. butane
✗ 3. pentane
✗ 4. methane

Question ID : **630680333849**
Option 1 ID : **6306801298671**
Option 2 ID : **6306801298670**
Option 3 ID : **6306801298672**
Option 4 ID : **6306801298669**
Status : **Answered**
Chosen Option : **2**

Q.14 **The concentration of hydrogen ion in a sample of soft drink is 3.8×10^{-3} M. What is its pH?**

Ans
✓ 1. 2.42
✗ 2. 4.22
✗ 3. 0.86
✗ 4. 1.89

Question ID : **630680333862**
Option 1 ID : **6306801298723**
Option 2 ID : **6306801298722**
Option 3 ID : **6306801298724**
Option 4 ID : **6306801298721**
Status : **Not Answered**
Chosen Option : **--**

Q.15 What are the masses of proton and neutron (in u), respectively?

Ans

✗ 1. 1.00238 and 1.00548

✓ 2. 1.00727 and 1.00867

✗ 3. 1.00548 and 1.00238

✗ 4. 1.00988 and 1.00489

Question ID : **630680333838**
Option 1 ID : **6306801298628**
Option 2 ID : **6306801298625**
Option 3 ID : **6306801298626**
Option 4 ID : **6306801298627**
Status : **Answered**
Chosen Option : **2**

Q.16 Which of the following increasing orders is correct with respect to C-O bond length?

Ans

✓ 1. Phenol < Methanol < Methoxymethane

✗ 2. Methoxymethane < Methanol < Phenol

✗ 3. Phenol < Methoxymethane < Methanol

✗ 4. Methanol < Phenol < Methoxymethane

Question ID : **630680333858**
Option 1 ID : **6306801298707**
Option 2 ID : **6306801298708**
Option 3 ID : **6306801298706**
Option 4 ID : **6306801298705**
Status : **Answered**
Chosen Option : **2**

Q.17 Which of the following molecules has the highest dipole moment (in D)?

Ans

✓ 1. NH_3

✗ 2. H_2S

✗ 3. NF_3

✗ 4. CO_2

Question ID : **630680333841**
Option 1 ID : **6306801298638**
Option 2 ID : **6306801298639**
Option 3 ID : **6306801298640**
Option 4 ID : **6306801298637**
Status : **Answered**
Chosen Option : **4**

Q.18 What is the major product formed when benzene reacts with sodium metal in the presence of liquid ammonia?

Ans
✗ 1. Cyclohexa-1,3-diene
✗ 2. Cyclohexane
✓ 3. Cyclohexa-1,4-diene
✗ 4. Propane-1,3-dial

Question ID : **630680333851**
Option 1 ID : **6306801298679**
Option 2 ID : **6306801298680**
Option 3 ID : **6306801298677**
Option 4 ID : **6306801298678**
Status : **Not Answered**
Chosen Option : **--**

Q.19 What is the major product formed when propyl magnesium bromide reacts with acetaldehyde?

Ans
✓ 1. Pentan-2-ol
✗ 2. Butan-2-ol
✗ 3. Pentan-1-al
✗ 4. Butan-1-al

Question ID : **630680333856**
Option 1 ID : **6306801298700**
Option 2 ID : **6306801298697**
Option 3 ID : **6306801298698**
Option 4 ID : **6306801298699**
Status : **Not Answered**
Chosen Option : **--**

Q.20 Who was awarded Nobel Prize for Physics in 1906, for his theoretical and experimental investigations on the conduction of electricity by gases?

Ans
✗ 1. Ernest Marsden
✗ 2. Neils Bohr
✗ 3. Ernest Rutherford
✓ 4. JJ Thomson

Question ID : **630680333836**
Option 1 ID : **6306801298619**
Option 2 ID : **6306801298620**
Option 3 ID : **6306801298617**
Option 4 ID : **6306801298618**
Status : **Answered**
Chosen Option : **1**

Section : **Mathematics**

Q.1 Evaluate $\int \frac{\cos x}{\sin x+\cos x} dx$.

Ans

✔ 1. $\frac{1}{2}[x + \ln|\sin x + \cos x|] + c$

✘ 2. $\frac{1}{2}[x - \ln|\sin x - \cos x|] + c$

✘ 3. $\frac{1}{2}[x + \ln|\sin x - \cos x|] + c$

✘ 4. $\frac{1}{2}[x - \ln|\sin x + \cos x|] + c$

Question ID : **630680334033**
Option 1 ID : **6306801299405**
Option 2 ID : **6306801299408**
Option 3 ID : **6306801299407**
Option 4 ID : **6306801299406**
Status : **Not Answered**
Chosen Option : --

Q.2 **If the major and minor axes of an ellipse are 7 cm and 5 cm, find its area.**

Ans

✘ 1. 74 cm^2

✔ 2. 110 cm^2

✘ 3. 70 cm^2

✘ 4. 35 cm^2

Question ID : **630680334061**
Option 1 ID : **6306801299520**
Option 2 ID : **6306801299518**
Option 3 ID : **6306801299519**
Option 4 ID : **6306801299517**
Status : **Answered**
Chosen Option : **2**

Q.3 **Find the values of k for which the equation x^2 −4x+k=0 has distinct real roots.**

Ans

✘ 1. k = 4

✔ 2. k < 4

✘ 3. k > 4

✘ 4. k = 6

Question ID : **630680334062**
Option 1 ID : **6306801299521**
Option 2 ID : **6306801299523**
Option 3 ID : **6306801299522**
Option 4 ID : **6306801299524**
Status : **Answered**
Chosen Option : **2**

Q.4 Find the value of $\sum_{r=0}^{n} 3^r \, {}^nC_r$.

Ans
✗ 1. 3^n
✗ 2. 9^n
✗ 3. 5^n
✓ 4. 4^n

Question ID : **630680334030**
Option 1 ID : **6306801299393**
Option 2 ID : **6306801299395**
Option 3 ID : **6306801299396**
Option 4 ID : **6306801299394**
Status : **Answered**
Chosen Option : **1**

Q.5 The smallest number by which $\sqrt{343}$ should be multiplied so as to get rational number is?

Ans
✗ 1. $7\sqrt{7}$
✗ 2. $\sqrt{343}$
✓ 3. $\sqrt{7}$
✗ 4. 7

Question ID : **630680334044**
Option 1 ID : **6306801299450**
Option 2 ID : **6306801299449**
Option 3 ID : **6306801299451**
Option 4 ID : **6306801299452**
Status : **Answered**
Chosen Option : **3**

Q.6 If α and β are the zero of the polynomials fx=x^2+5x+k satisfying the relation $\alpha^2+\beta^2-\alpha\beta=22$, then find the value of k for this to be possible.

Ans
✓ 1. 1
✗ 2. 8
✗ 3. 2
✗ 4. 16

Question ID : **630680334046**
Option 1 ID : **6306801299459**
Option 2 ID : **6306801299460**
Option 3 ID : **6306801299457**
Option 4 ID : **6306801299458**
Status : **Answered**
Chosen Option : **1**

Q.7 A chord of a circle of radius $\sqrt{2}$ cm subtends a right angle at centre. Find the length of the chord (in cm).

Ans
1. $\sqrt{2}$
2. 2
3. $3\sqrt{2}$
4. 1

Question ID : **630680334052**
Option 1 ID : **6306801299483**
Option 2 ID : **6306801299484**
Option 3 ID : **6306801299482**
Option 4 ID : **6306801299481**
Status : **Answered**
Chosen Option : **3**

Q.8 Solve $e^{\left(\frac{dy}{dx}\right)} - e^{y+\sqrt{y}} = 0$

Ans
1. $(1-\sqrt{y}) = ce^{x}$
2. $(\sqrt{y}-1)^{2} = ce^{x}$
3. $(\sqrt{y}+1)^{2} = ce^{x}$
4. $(1+\sqrt{y}) = ce^{x}$

Question ID : **630680334040**
Option 1 ID : **6306801299435**
Option 2 ID : **6306801299433**
Option 3 ID : **6306801299434**
Option 4 ID : **6306801299436**
Status : **Answered**
Chosen Option : **3**

Q.9 Solve the inequalities in the following.

$$\frac{x}{4} < \frac{5x-2}{3} - \frac{7x-3}{5}$$

Ans
1. $x < -4$
2. $x > 4$
3. $x < 2$
4. $x < -2$

Question ID : **630680334028**
Option 1 ID : **6306801299386**
Option 2 ID : **6306801299387**
Option 3 ID : **6306801299385**
Option 4 ID : **6306801299388**
Status : **Answered**
Chosen Option : **2**

Q.10 Evaluate $\left(\sqrt{2}+1\right)^6+\left(\sqrt{2}-1\right)^6$.

Ans
✗ 1. $140\sqrt{2}$
✗ 2. $58\sqrt{2}$
✓ 3. 198
✗ 4. 338

Question ID : **630680334031**
Option 1 ID : **6306801299398**
Option 2 ID : **6306801299399**
Option 3 ID : **6306801299397**
Option 4 ID : **6306801299400**
Status : **Answered**
Chosen Option : **3**

Q.11 **Find the equation of a circle whose end points of any diameter are (2, −1) and (−2, 2).**

Ans
✗ 1. $x^2+y^2+y-6=0$
✗ 2. $x^2+y^2-x+6=0$
✓ 3. $x^2+y^2-y-6=0$
✗ 4. $x^2+y^2+x+6=0$

Question ID : **630680334058**
Option 1 ID : **6306801299508**
Option 2 ID : **6306801299506**
Option 3 ID : **6306801299505**
Option 4 ID : **6306801299507**
Status : **Answered**
Chosen Option : **3**

Q.12 **What is the value of k so that the line through (4, k) and (5, 6) is perpendicular to the line through (−1, 8) and (3, 12)?**

Ans
✗ 1. 8
✗ 2. 1
✓ 3. 7
✗ 4. 0

Question ID : **630680334049**
Option 1 ID : **6306801299469**
Option 2 ID : **6306801299471**
Option 3 ID : **6306801299470**
Option 4 ID : **6306801299472**
Status : **Answered**
Chosen Option : **3**

Q.13 If HCF(34, 289) = 17, then LCM(34, 289) =?

Ans
✗ 1. 612
✗ 2. 867
✗ 3. 1156
✓ 4. 578

Question ID : **630680334041**
Option 1 ID : **6306801299437**
Option 2 ID : **6306801299438**
Option 3 ID : **6306801299440**
Option 4 ID : **6306801299439**
Status : **Answered**
Chosen Option : **4**

Q.14 The diagonals of a quadrilateral ABCD bisect each other. If ∠B=135°, then ∠A=?

Ans
✗ 1. 50°
✓ 2. 45°
✗ 3. 35°
✗ 4. 25°

Question ID : **630680334054**
Option 1 ID : **6306801299491**
Option 2 ID : **6306801299490**
Option 3 ID : **6306801299489**
Option 4 ID : **6306801299492**
Status : **Answered**
Chosen Option : **2**

Q.15 Evaluate $\int \frac{1}{(e^x + e^{-x})^2} dx$.

Ans
✗ 1. $-\frac{1}{(e^{2x}+1)} + c$
✗ 2. $\frac{1}{2(e^x + e^{-x})} + c$
✗ 3. $\frac{2}{(e^x + e^{-x})} + c$
✓ 4. $-\frac{1}{2(e^{2x}+1)} + c$

Question ID : **630680334036**
Option 1 ID : **6306801299420**
Option 2 ID : **6306801299417**
Option 3 ID : **6306801299419**
Option 4 ID : **6306801299418**
Status : **Not Answered**
Chosen Option : **--**

Q.16 If $\sin\theta + \cos\theta = x$ and $\cos\theta - \sin\theta = y$, then $\tan 2\theta$ =?

Ans

✔ 1. $\frac{1}{2}\left(\frac{x}{y} - \frac{y}{x}\right)$

✘ 2. $\frac{1}{2}\left(\frac{y}{x} + \frac{x}{y}\right)$

✘ 3. $\frac{1}{4}\left(\frac{y}{x} + \frac{x}{y}\right)$

✘ 4. $\frac{1}{4}\left(\frac{x}{y} - \frac{y}{x}\right)$

Question ID : **630680334064**
Option 1 ID : **6306801299529**
Option 2 ID : **6306801299530**
Option 3 ID : **6306801299532**
Option 4 ID : **6306801299531**
Status : **Not Answered**
Chosen Option : --

Q.17 Solve $\frac{dy}{dx} + \sqrt{\frac{1-y^2}{1-x^2}} = 0$

Ans

✘ 1. $x\sqrt{1-x^2} + y\sqrt{1-y^2} = c$

✔ 2. $x\sqrt{1-y^2} + y\sqrt{1-x^2} = c$

✘ 3. $x\sqrt{1+y^2} + y\sqrt{1+x^2} = c$

✘ 4. $x\sqrt{1+x^2} + y\sqrt{1+y^2} = c$

Question ID : **630680334037**
Option 1 ID : **6306801299424**
Option 2 ID : **6306801299422**
Option 3 ID : **6306801299421**
Option 4 ID : **6306801299423**
Status : **Answered**
Chosen Option : **1**

Q.18 If $7\sin\theta = 5$, Find the value of $\frac{\sec\theta + \tan\theta}{\sec\theta - \tan\theta} = ?$

Ans
✔ 1. 6
✘ 2. 1
✘ 3. 8
✘ 4. 2

Question ID : **630680334066**
Option 1 ID : **6306801299539**
Option 2 ID : **6306801299538**
Option 3 ID : **6306801299540**
Option 4 ID : **6306801299537**
Status : **Answered**
Chosen Option : **1**

Q.19 **Find the equation of a circle whose centre is (−3, 2) and area is 176 units^2.**

Ans
✘ 1. $(x+3)^2+(y-2)^2=49$
✔ 2. $(x+3)^2+(y-2)^2=56$
✘ 3. $(x-3)^2+(y+2)^2=56$
✘ 4. $(x-3)^2+(y+2)^2=49$

Question ID : **630680334059**
Option 1 ID : **6306801299509**
Option 2 ID : **6306801299511**
Option 3 ID : **6306801299512**
Option 4 ID : **6306801299510**
Status : **Answered**
Chosen Option : **2**

Q.20 For which value of k will the lines represented by the following pair of linear equations be parallel?

$7x + 9y = 6, kx + 5y = 5$

Ans
✘ 1. 9
✘ 2. $\frac{6}{5}$
✔ 3. $\frac{35}{9}$
✘ 4. 7

Question ID : **630680334047**
Option 1 ID : **6306801299462**
Option 2 ID : **6306801299464**
Option 3 ID : **6306801299463**
Option 4 ID : **6306801299461**
Status : **Answered**
Chosen Option : **3**

Section : **English and GK**

Q.1 The _____ is the second most polluted river in India, according to a Central Pollution Control Board (CPCB) November 2022 report tabled by the Union ministry of Jal Shakti.

Ans
✗ 1. Mahanadi
✓ 2. Sabarmati
✗ 3. Yamuna
✗ 4. Cooum

Question ID : **630680333811**
Option 1 ID : **6306801298519**
Option 2 ID : **6306801298520**
Option 3 ID : **6306801298517**
Option 4 ID : **6306801298518**
Status : **Answered**
Chosen Option : **3**

Q.2 Which of the following passes does NOT lie in Leh-Ladakh?

Ans
✗ 1. Imis La Pass
✗ 2. Umlingla Pass
✓ 3. Jelep La Pass
✗ 4. Aghil Pass

Question ID : **630680333821**
Option 1 ID : **6306801298559**
Option 2 ID : **6306801298557**
Option 3 ID : **6306801298560**
Option 4 ID : **6306801298558**
Status : **Answered**
Chosen Option : **3**

Q.3 According to Census 2011, which is the most literate Union Territory of India?

Ans
✓ 1. Lakshadweep
✗ 2. Puducherry
✗ 3. Daman and Diu
✗ 4. Jammu and Kashmir

Question ID : **630680333829**
Option 1 ID : **6306801298589**
Option 2 ID : **6306801298592**
Option 3 ID : **6306801298591**
Option 4 ID : **6306801298590**
Status : **Answered**
Chosen Option : **2**

Q.4 **Which of the following bones is NOT located in the legs?**

Ans
✗ 1. Tibia
✗ 2. Patella
✗ 3. Tarsals
✓ 4. Carpals

Question ID : **630680333831**
Option 1 ID : **6306801298598**
Option 2 ID : **6306801298600**
Option 3 ID : **6306801298599**
Option 4 ID : **6306801298597**
Status : **Answered**
Chosen Option : **3**

Q.5 **Atmiya Sabha was a philosophical discussion circle in India and was started by Ram Mohan Roy in _____, in Kolkata (then Calcutta).**

Ans
✗ 1. 1813
✓ 2. 1815
✗ 3. 1817
✗ 4. 1811

Question ID : **630680333817**
Option 1 ID : **6306801298542**
Option 2 ID : **6306801298543**
Option 3 ID : **6306801298544**
Option 4 ID : **6306801298541**
Status : **Not Answered**
Chosen Option : **--**

Q.6 **Satyashodhak Samaj (Truth-seekers' Society) was a social reform society founded by _____ in Pune, Maharashtra, on 24 September 1873.**

Ans
✗ 1. Vinoba Bhave
✗ 2. Dhondo Keshav Karve
✓ 3. Jyoti Rao Phule
✗ 4. Purushottam Kakodkar

Question ID : **630680333812**
Option 1 ID : **6306801298522**
Option 2 ID : **6306801298523**
Option 3 ID : **6306801298521**
Option 4 ID : **6306801298524**
Status : **Answered**
Chosen Option : **1**

Q.7 To which sport does Lakshya Sen, who was awarded the Arjuna Award on 30 November 2022 belong?

Ans
✗ 1. Table tennis
✗ 2. Shooting
✓ 3. Badminton
✗ 4. Chess

Question ID : **630680333806**
Option 1 ID : **6306801298499**
Option 2 ID : **6306801298500**
Option 3 ID : **6306801298497**
Option 4 ID : **6306801298498**
Status : **Answered**
Chosen Option : **2**

Q.8 Census 2021, the ensuing decadal Census would have been the _____ Census of India.

Ans
✗ 1. 17^{th}
✓ 2. 16^{th}
✗ 3. 14^{th}
✗ 4. 15^{th}

Question ID : **630680333825**
Option 1 ID : **6306801298575**
Option 2 ID : **6306801298573**
Option 3 ID : **6306801298576**
Option 4 ID : **6306801298574**
Status : **Answered**
Chosen Option : **4**

Q.9 बच्चों का सूखा रोग (Kwashiorkor) _____ की कमी के कारण होने वाला रोग है।

Ans
✗ 1. विटामिन A
✓ 2. ोटीन
✗ 3. कै शियम
✗ 4. आयरन

Question ID : **630680333834**
Option 1 ID : **6306801298612**
Option 2 ID : **6306801298610**
Option 3 ID : **6306801298609**
Option 4 ID : **6306801298611**
Status : **Answered**
Chosen Option : **2**

Q.10 The Parmar dynasty was an Indian dynasty that ruled Malwa and surrounding areas in _____ India between the 9th and 14th centuries.

Ans
✔ 1. West-central
✘ 2. East-central
✘ 3. North-central
✘ 4. South-central

Question ID : **630680333818**
Option 1 ID : **6306801298545**
Option 2 ID : **6306801298547**
Option 3 ID : **6306801298546**
Option 4 ID : **6306801298548**
Status : **Not Answered**
Chosen Option : **--**

Q.11 Select the most appropriate meaning of the underlined idiom.
At the age of 75, he is fit as a fiddle and walks at least four kilometres every day.

Ans
✘ 1. Determined
✘ 2. Strong-minded
✔ 3. Healthy
✘ 4. Knowledgeable

Question ID : **630680334645**
Option 1 ID : **6306801301849**
Option 2 ID : **6306801301850**
Option 3 ID : **6306801301851**
Option 4 ID : **6306801301852**
Status : **Answered**
Chosen Option : **3**

Q.12 Select the most appropriate option to fill in the blank.
My sister is currently studying _____, a study of speech sounds.

Ans
✘ 1. semantics
✘ 2. linguistics
✔ 3. phonetics
✘ 4. philology

Question ID : **630680334642**
Option 1 ID : **6306801301840**
Option 2 ID : **6306801301839**
Option 3 ID : **6306801301837**
Option 4 ID : **6306801301838**
Status : **Answered**
Chosen Option : **3**

Q.13 **Select the most appropriate proverb for the given situation.**
A blind man wanted to cross the road. Some people saw him, talked about him, but nobody helped him. Siddharth, a twelve-year-old boy, who saw the blind man, came forward and holding his hand crossed the road.

Ans
✔ 1. Actions speak louder than the words.
✘ 2. Look before you leap.
✘ 3. God helps those who help themselves.
✘ 4. Good things come to those who wait.

Question ID : **630680334649**
Option 1 ID : **6306801301867**
Option 2 ID : **6306801301866**
Option 3 ID : **6306801301868**
Option 4 ID : **6306801301865**
Status : **Answered**
Chosen Option : **1**

Comprehension:

Read the following passage and answer the questions that follows.

Keeladi is a tiny hamlet in the Sivaganga district in south Tamil Nadu. It is located along the Vaigai river. The excavations here from 2015 prove that an urban civilisation existed in Tamil Nadu as far back as 800 BCE on the banks of the Vaigai river. Tamil Nadu state Department of Archaeology affirms that Keeladi has all the characteristics of an urban civilisation, with brick structures, luxury items and proof of internal and external trade. It comes across as an industrious and advanced civilisation and has given evidence of urban life and settlements in Tamil Nadu during the Early Historic Period. Academics have termed it as the Vaigai Valley Civilisation.
In the eight rounds of excavations, over 18,000 artefacts have been unearthed from the site. Unearthing of heaps of pottery suggest the existence of a pottery making industry, mostly made of locally available raw materials. Spindle whorls, copper needles, terracotta seal, hanging stones of the yarn, terracotta spheres and earthen vessels to hold liquid suggest various stages of a weaving industry. There also existed a dyeing industry and a glass bead industry.
Gold ornaments, copper articles, semi-precious stones, shell bangles, ivory bangles and ivory combs reflect the artistic, culturally rich and prosperous lifestyle of the Keeladi people. Agate and carnelian beads suggest import through commercial networks while terracotta and ivory dice, gamesmen and evidence of hopscotch have been unearthed revealing their pastime hobbies.

SubQuestion No : 14

Q.14 **Findings of spindle whorls, copper needles and hanging stones of the yarn indicate the existence of which of the following?**

Ans
✘ 1. An urban civilisation
✘ 2. Trade network
✔ 3. Weaving industry
✘ 4. Glass industry

Question ID : **630680334664**
Option 1 ID : **6306801301917**
Option 2 ID : **6306801301920**
Option 3 ID : **6306801301919**
Option 4 ID : **6306801301918**
Status : **Answered**
Chosen Option : **3**

Comprehension:

Read the following passage and answer the questions that follows.

Keeladi is a tiny hamlet in the Sivaganga district in south Tamil Nadu. It is located along the Vaigai river. The excavations here from 2015 prove that an urban civilisation existed in Tamil Nadu as far back as 800 BCE on the banks of the Vaigai river. Tamil Nadu state Department of Archaeology affirms that Keeladi has all the characteristics of an urban civilisation, with brick structures, luxury items and proof of internal and external trade. It comes across as an industrious and advanced civilisation and has given evidence of urban life and settlements in Tamil Nadu during the Early Historic Period. Academics have termed it as the Vaigai Valley Civilisation.
In the eight rounds of excavations, over 18,000 artefacts have been unearthed from the site. Unearthing of heaps of pottery suggest the existence of a pottery making industry, mostly made of locally available raw materials. Spindle whorls, copper needles, terracotta seal, hanging stones of the yarn, terracotta spheres and earthen vessels to hold liquid suggest various stages of a weaving industry. There also existed a dyeing industry and a glass bead industry.
Gold ornaments, copper articles, semi-precious stones, shell bangles, ivory bangles and ivory combs reflect the artistic, culturally rich and prosperous lifestyle of the Keeladi people. Agate and carnelian beads suggest import through commercial networks while terracotta and ivory dice, gamesmen and evidence of hopscotch have been unearthed revealing their pastime hobbies.

SubQuestion No : 15

Q.15 Which of the following statements is NOT true about the People of Vaigai Valley Civilisation according to the passage?

Ans

✗ 1. They carried out import and export of things.

✗ 2. They had a rich lifestyle.

✗ 3. They were hard-working people.

✓ 4. They lived in small villages.

Question ID : **630680334666**
Option 1 ID : **6306801301928**
Option 2 ID : **6306801301925**
Option 3 ID : **6306801301926**
Option 4 ID : **6306801301927**
Status : **Answered**
Chosen Option : **4**

Comprehension:

Read the following passage and answer the questions that follows.

Keeladi is a tiny hamlet in the Sivaganga district in south Tamil Nadu. It is located along the Vaigai river. The excavations here from 2015 prove that an urban civilisation existed in Tamil Nadu as far back as 800 BCE on the banks of the Vaigai river. Tamil Nadu state Department of Archaeology affirms that Keeladi has all the characteristics of an urban civilisation, with brick structures, luxury items and proof of internal and external trade. It comes across as an industrious and advanced civilisation and has given evidence of urban life and settlements in Tamil Nadu during the Early Historic Period. Academics have termed it as the Vaigai Valley Civilisation.
In the eight rounds of excavations, over 18,000 artefacts have been unearthed from the site. Unearthing of heaps of pottery suggest the existence of a pottery making industry, mostly made of locally available raw materials. Spindle whorls, copper needles, terracotta seal, hanging stones of the yarn, terracotta spheres and earthen vessels to hold liquid suggest various stages of a weaving industry. There also existed a dyeing industry and a glass bead industry.
Gold ornaments, copper articles, semi-precious stones, shell bangles, ivory bangles and ivory combs reflect the artistic, culturally rich and prosperous lifestyle of the Keeladi people. Agate and carnelian beads suggest import through commercial networks while terracotta and ivory dice, gamesmen and evidence of hopscotch have been unearthed revealing their pastime hobbies.

SubQuestion No : 16

Q.16 Which of the following findings tell us how the people of Vaigai Valley Civilisation pass their free time?

Ans

✗ 1. Shell bangles, ivory bangles and ivory combs

✗ 2. Terracotta spheres and earthen vessels

✓ 3. Ivory and terracotta dice, gamesmen and hopscotch

✗ 4. Agate and carnelian beads

Question ID : **630680334665**
Option 1 ID : **6306801301923**
Option 2 ID : **6306801301922**
Option 3 ID : **6306801301924**
Option 4 ID : **6306801301921**
Status : **Answered**
Chosen Option : **3**

Comprehension:

Read the following passage and answer the questions that follows.

Keeladi is a tiny hamlet in the Sivaganga district in south Tamil Nadu. It is located along the Vaigai river. The excavations here from 2015 prove that an urban civilisation existed in Tamil Nadu as far back as 800 BCE on the banks of the Vaigai river. Tamil Nadu state Department of Archaeology affirms that Keeladi has all the characteristics of an urban civilisation, with brick structures, luxury items and proof of internal and external trade. It comes across as an industrious and advanced civilisation and has given evidence of urban life and settlements in Tamil Nadu during the Early Historic Period. Academics have termed it as the Vaigai Valley Civilisation.
In the eight rounds of excavations, over 18,000 artefacts have been unearthed from the site. Unearthing of heaps of pottery suggest the existence of a pottery making industry, mostly made of locally available raw materials. Spindle whorls, copper needles, terracotta seal, hanging stones of the yarn, terracotta spheres and earthen vessels to hold liquid suggest various stages of a weaving industry. There also existed a dyeing industry and a glass bead industry.
Gold ornaments, copper articles, semi-precious stones, shell bangles, ivory bangles and ivory combs reflect the artistic, culturally rich and prosperous lifestyle of the Keeladi people. Agate and carnelian beads suggest import through commercial networks while terracotta and ivory dice, gamesmen and evidence of hopscotch have been unearthed revealing their pastime hobbies.

SubQuestion No : 17

Q.17 The passage is mainly about:

Ans

✗ 1. the eight rounds of excavations at Keeladi

✓ 2. the discovery of an ancient urban civilisation at Keeladi

✗ 3. various artefacts found in the excavations at Keeladi

✗ 4. trade network of Keeladi people in ancient times.

Question ID : **630680334663**
Option 1 ID : **6306801301913**
Option 2 ID : **6306801301914**
Option 3 ID : **6306801301915**
Option 4 ID : **6306801301916**
Status : **Answered**
Chosen Option : **2**

Q.18 Select the most appropriate option to fill in the blank.
The rabbit darted into the _____ hole to save itself from the wolf.

Ans

✗ 1. more near

✓ 2. nearest

✗ 3. nearer

✗ 4. near

Question ID : **630680334639**
Option 1 ID : **6306801301828**
Option 2 ID : **6306801301827**
Option 3 ID : **6306801301826**
Option 4 ID : **6306801301825**
Status : **Answered**
Chosen Option : **2**

Q.19 **Select the most appropriate ANTONYM of the given word.**
Impetus

Ans
✗ 1. Stimulus
✓ 2. Hindrance
✗ 3. Fillip
✗ 4. Incentive

Question ID : **630680334651**
Option 1 ID : **6306801301874**
Option 2 ID : **6306801301873**
Option 3 ID : **6306801301875**
Option 4 ID : **6306801301876**
Status : **Answered**
Chosen Option : **3**

Q.20 **Select the most appropriate synonym of the given word.**
Assail

Ans
✗ 1. Praise
✗ 2. Yield
✓ 3. Attack
✗ 4. Help

Question ID : **630680334655**
Option 1 ID : **6306801301890**
Option 2 ID : **6306801301891**
Option 3 ID : **6306801301889**
Option 4 ID : **6306801301892**
Status : **Answered**
Chosen Option : **3**