ATOMIC ENERGY CENTRAL SCHOOL NO.4

RAWATBHATA

CLASS 09 - SCIENCE

MOCK TEST JANUARY- 2021

Time Allowed: 30 minutes **Maximum Marks: 40**

1. The conclusion of Rutherford's scattering experiment does not include **[1]**

   a) The radius of nucleus is less than 10^{-14} m.

   b) The positively charged particles of atom move with very high velocity.

   c) Scattering follows coulomb's law, i.e., same charges repel each other.

   d) α-particles can come within the distance of order of 10^{-14} m of the nucleus.

2. Which of the following reactions led to the discovery of the neutron? **[1]**

   a) ${}^{11}_{5}B \ + \ {}^{2}_{1}H \ \rightarrow {}^{12}_{6}N \ + {}^{1}_{0}n$

   b) ${}^{8}_{4}Be \ + \ {}^{4}_{2}He \ \rightarrow {}^{11}_{6}C \ + {}^{1}_{0}n$

   c) ${}^{9}_{4}Be \ + \ {}^{4}_{2}He \ \rightarrow {}^{12}_{6}C \ + {}^{1}_{0}n$

   d) ${}^{12}_{6}C \ + \ {}^{1}_{1}H \ \rightarrow {}^{14}_{7}N \ + {}^{1}_{0}n$

3. Valency of an element is 8; It means it has _____ electrons in its outermost shell. **[1]**

   a) 7 electrons

   b) 5 electrons

   c) 8 electrons

   d) 6 electrons

4. Rutherford's α–particle scattering experiment showed that **[1]**

   i. electrons have negative charge
   ii. the mass and positive charge of the atom is concentrated in the nucleus
   iii. neutron exists in the nucleus
   iv. most of the space in atom is empty

   Which of the above statements are correct?

   a) (iii) and (iv)

   b) (ii) and (iv)

   c) (i) and (iv)

   d) (i) and (iii)

5. In neutral atoms, number of electrons are equal to number of _____. **[1]**

   a) Mass number

   b) Protons

   c) Neutrons

   d) Nuclear charge

6. Atomic number is equal to **[1]**

   a) number of electrons

   b) number of protons

   c) number of neutrons

   d) difference in mass number and number of electrons

7. The number of electrons in an element x is 15 and the number of neutrons is 16. Which of the following is the correct representation of the element ? **[1]**

a) ${}^{31}_{16}X$ b) ${}^{31}_{15}X$

c) ${}^{15}_{16}X$ d) ${}^{16}_{15}X$

8. Which of the following statements is not true about neutrons? **[1]**

a) It is highly unstable in nature. b) It contributes to the mass of the atom.

c) It is a neutral particle. d) It is present in the nucleus of an atom.

9. Which of the following correctly represent the electronic distribution in the Mg atom? **[1]**

a) 8, 2, 2 b) 2, 8, 2

c) 3, 8, 1 d) 1, 8, 3

10. The $\frac{charge}{mass}$ ratio of electron **[1]**

a) depends upon nature of electrodes b) depends upon nature of gas

c) remains constant d) depends upon both nature of gas and nature of electrodes

11. Match the following with the correct response: **[1]**

(a) Distribution of electrons	(i) Electronic configuration
(b) In a neutral atom	(ii) Gain or loss of electrons
(c) Ions	(iii) Electrons are always equal to protons
(d) Molecule	(iv) Stable

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

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

12. The highest value of e/m of anode rays has been observed when the discharge tube is filled with **[1]**

a) N_2 b) O_2

c) He d) H_2

13. In a sample of ethyl ethanoate ($CH_3COOC_2H_5$) the two oxygen atoms have the same number electrons but different number of neutrons. Which of the following is the correct reason for it ? **[1]**

a) The two oxygen atoms are isobars b) One of the oxygen atom has gained neutrons

c) One of the oxygen atom has gained electrons d) The two oxygen atoms are isotopes

14. If a plant cell is kept in a hypotonic solution, it will: **[1]**

a) increase in its volume b) the decrease in its volume

c) burst d) maintain the same volume

15. Amoeba acquires its food through: **[1]**

a) Exocytosis & Endocytosis
b) Exocytosis
c) Plasmolysis
d) Endocytosis

16. Find out the correct sentence **[1]**

a) Rough endoplasmic reticulum and smooth endoplasmic reticulum produce lipid and protein respectively
b) Nucleoid is present inside the nucleoplasm of eukaryotic nucleus
c) Endoplasmic reticulum is related with the destruction of plasma membrane
d) Enzymes packed in Lysosomes are made through RER (rough endoplasmic reticulum)

17. Which of the following can be made into crystal? **[1]**

a) An Amoeba
b) A Bacterium
c) A Virus
d) A Sperm

18. The cell organelle involved in forming complex sugars from simple sugars are **[1]**

a) Endoplasmic reticulum
b) Plastids
c) Golgi apparatus
d) Ribosomes

19. The structure/organelle of a cell that functions as a passage for intracellular transport as well as a manufacturing surface is: **[1]**

a) endoplasmic reticulum
b) plastids
c) plasma membrane
d) ribosome

20. Which of the following is known as the "physical basis of life"? **[1]**

a) Nucleolus
b) Mitochondria
c) Gene
d) Protoplasm

21. Organelle without a cell membrane is **[1]**

a) Ribosome
b) Golgi apparatus
c) Chloroplast
d) Nucleus

22. The only cell organelle seen in prokaryotic cell is **[1]**

a) ribosomes
b) mitochondria
c) lysosomes
d) plastids

23. Ribosomes are made up of _____. **[1]**

a) Both RNA and Proteins
b) RNA
c) Lipoprotein
d) Proteins

24. Which of the following is an incorrect pair? **[1]**

A. Lysosome - Secretory granules.
B. Nucleus - Brain of the cell

C. Mitochondria - a powerhouse of the cell

D. Chloroplast - Kitchen of the cell

a) (A) b) (D)

c) (B) d) (C)

25. Which of the following acts as a garbage disposal system of the cell? **[1]**

a) Vacuole b) Lysosome

c) Peroxisome d) Golgi body

26. Living cells were discovered by **[1]**

a) A.V. Leeuwenhoek b) Robert Brown

c) Robert Hooke d) R. Virchow

27. A man is at rest in the middle of the pond on perfectly smooth ice. He can get himself to the shore by making use of Newton's: **[1]**

a) Third law of motion b) Fourth

c) First d) Second

28. Inertia is of _____ types. **[1]**

a) three b) four

c) two d) one

29. Rocket works on the principle of conservation of **[1]**

a) mass b) velocity

c) energy d) momentum

30. The change in the momentum of a body in 0.01 seconds is 10 kg ms^{-1}. The force acting on this body is **[1]**

a) 100 N b) 0.1 N

c) 10 N d) 1000 N

31. **Statement A:** A passenger falls forward when a bus suddenly starts moving in the forward direction. **[1]**

Statement B: A gun recoils backward with a small speed than the bullet moving forward.

Which of the following statements is/are true?

a) neither statement A nor Statement B is true b) statement B is true

c) both statements A and B are true d) statement A is true

32. When no external force acts on an object, the physical quantity that remains conserved is **[1]**

a) force b) momentum

c) acceleration d) velocity

33. Match the following with correct response. **[1]**

(1) Unbalanced force	(A) Applying grease

(2) Unchanging tendency	(B) Change in state
(3) Method of reducing friction	(C) Force
(4) Rate of change of momentum	(D) Inertia

a) 1-C, 2-B, 3-D, 4-A
b) 1-B, 2-D, 3-A, 4-C
c) 1-D, 2-A, 3-C, 4-B
d) 1-A, 2-C, 3-B, 4-D

34. A passenger in a moving train tosses a coin which falls behind him. It means that motion of the train is **[1]**

a) along circular tracks
b) uniform
c) accelerated
d) retarded

35. Rocket works on the principle of _____. **[1]**

a) Newton's third law
b) Newton's second law
c) Newton's fourth law
d) Newton's first law

36. Water drops sticking to the wheel come out along the tangential line due to **[1]**

a) inertia
b) acceleration
c) momentum
d) force

37. Which of the following has the largest inertia? **[1]**

a) your physics book
b) a pin
c) your school bag
d) a pen

38. Two bodies of 5 kg and 3 kg moving with velocities 3 m/s and 10 m/s in a straight line with 3 kg behind 5 kg collide. After the collision, 3 kg has a velocity of 5 m/s. The velocity of 5 kg mass is **[1]**

a) 10 m/s
b) 6 m/s
c) 9 m/s
d) 3 m/s

39. A ball is dropped from a height of 10m. The ball is embedded in sand of 1m and stops. **[1]**

a) The only momentum remains conserved.
b) Only kinetic energy remains conserved.
c) Both momentum and kinetic energy are conserved.
d) Neither K.E nor momentum is conserved.

40. Match the following with the correct response. **[1]**

(1) Friction	(A) when one object rolls over another
(2) Limiting friction	(B) Force just sufficient to move the object
(3) Sliding friction	(iii)(C) Force which opposes motion
(4) Rolling friction	(D) Force sufficient to slide one object over another

a) 1-A, 2-C, 3-B, 4-D
b) 1-C, 2-B, 3-D, 4-A
c) 1-B, 2-D, 3-A, 4-C
d) 1-D, 2-A, 3-C, 4-B

Solution

Class 09 - Science

MOCK TEST JANUARY- 2021

1. **(b)** The positively charged particles of atom move with very high velocity.
   Explanation: Conclusion of Rutherford's scattering experiment:
   i. Most of the space inside the atom is empty because most of the α-particles passed through the gold foil without getting deflected.
   ii. Very few particles were deflected from their path, indicating that the positive charge of the atom occupies very little space.
   iii. A very small fraction of α-particles were deflected by very large angles, indicating that all the positive charge and mass of the gold atom were concentrated in a very small volume within the atom.
   iv. Since a very less number of alpha particles deflected, hence the volume of the nucleus is very less compared to the whole atom. The size of the nucleus is less than 2×10^{-14} m while the size of an atom is around 10^{-10} m.
   So, the positively charged particles of atom move with very high velocity do not include the conclusion of Rutherford's scattering experiment.
2. **(c)** ${}^{9}_{4}Be \ + \ {}^{4}_{2}He \ \rightarrow {}^{12}_{6}C \ + {}^{1}_{0}n$
   Explanation: In 1932 J. Chadwick discovered another subatomic particle called the neutron. Neutron is present in the nucleus of all atoms. And the reaction is given below.
   ${}^{9}_{4}Be \ + \ {}^{4}_{2}He \ \rightarrow {}^{12}_{6}C \ + {}^{1}_{0}n$
3. **(c)** 8 electrons
   Explanation: Valency is the combining capacity of an element. If an element has 8 valencies then it's outermost shell has 8 electrons or noble gas configuration.
4. **(b)** (ii) and (iv)
   Explanation: The statement (ii) and (iv) are correct. An atom consists of a positively charged, dense, and very small nucleus that has all the protons and neutrons. The positive charge is due to protons, as neutrons have no charge. Most of the space is empty because most of the alpha particles pass straight through the gold foil without any deflection.
   Electrons have negative charge, it was explained by Thomson. The existence of the neutron was discovered by Chadwick.
5. **(b)** Protons
   Explanation:
   i. The number of protons in the nucleus of the atom is equal to the atomic number (Z).
   ii. The number of electrons in a neutral atom is equal to the number of protons.
   iii. The mass number of the atom (M) is equal to the sum of the number of protons and neutrons in the nucleus.
   iv. The number of neutrons is equal to the difference between the mass number of the atom (M) and the atomic number (Z).
6. **(b)** number of protons
   Explanation: The number of protons in the nucleus of the atom is equal to the atomic number (Z). The number of electrons in a neutral atom is equal to the number of protons. The mass number of the atom (M) is equal to the sum of the number of protons and neutrons in the nucleus. The number of neutrons is equal to the difference between the mass number of the atom (M) and the atomic number (Z).
7. **(b)** ${}^{31}_{15}X$
   Explanation: An element that contains 15 electrons is Phosphours(P).
   Now mass of this element = No. of electrons = No. of neutrons = 15 = 16 = 31.
   So, the representation of the element is ${}^{31}_{15}X$.

8. **(a)** It is highly unstable in nature.
Explanation: Neutron is a neutral sub-atomic particle present inside the nucleus of an atom. It contributes to the mass of the atom. Neutron is a stable particle.

9. **(b)** 2, 8, 2
Explanation: Atomic number of magnesium = 12
Therefore number of electrons = 12
Thus, electronic configuration of magnesium is Magnesium = 2,8,2.

10. **(c)** remains constant
Explanation: The $\frac{charge}{mass}$ on the type of ray one is passing. Since we are talking about electron the cathode ray particles are nothing but a beam of electrons. Since the charge, as well as mass, is constant for electron no matter any gas we take in during the experiment in the discharge tube. So, their charge/mass ratio remains constant for electron.

11. **(d)** (a) - (i), (b) - (iii), (c) - (ii), (d) - (iv)
Explanation: An atom is always electrically neutral; hence the number of protons is equal to the number of electrons. The distribution of electrons of an atom or a molecule (or other physical structure) in atomic or molecular orbitals is known as the electronic configuration. A molecule is an electrically neutral group of two or more atoms held together by chemical bonds. Molecules are distinguished from ions by their lack of electrical charge. An ion is a charged atom or molecule. It is formed when an atom or a group of atoms lose or gain electrons and get charged. The number of electrons in an ion is not equal to the number of protons.

(a) Distribution of electrons	(i) Electronic configuration
(b) In a neutral atom	(iii) Electrons are always equal to protons
(c) Ions	(ii) Gain or loss of electrons
(d) Molecule	(iv) Stable

12. **(d)** H_2
Explanation: The e/m ratio is charge by mass ratio. Anode rays are the positively charged nuclei of the element in the discharge tube. It is a general observation that as the molecular mass of the gas increases its e/m ratio decreases. In the case of anode rays maximum value for the e/m ratio is observed in the case of Hydrogen gas (H_2). The reason is that Hydrogen is the only element that does not carry any neutron. In anode ray discharge it carries 1 positive charge and mass is also 1. So the e/m ratio is 1. But for other gases as the molecular mass of the gas increases, the number of neutrons also increases so charge(number of protons) by mass (number of proton + number of the neutron) does not remain 1 but it becomes less than because mass is always greater than charge except for hydrogen.

13. **(d)** The two oxygen atoms are isotopes
Explanation: The two oxygen atoms have the same number electrons but different number of neutrons. So, two oxygen atom have same atomic number but different atomic masses. Elements having same atomic number but different atomic masses are known as Isotopes.
So, the two oxygen atoms are isotopes is true statement.

14. **(a)** increase in its volume
Explanation: The cell is said to be turgid when the plant cell wall becomes rigid and stretched by an increase in the volume of vacuoles due to the absorption of water when placed in a hypotonic solution.

15. **(d)** Endocytosis
Explanation: Amoeba acquires its food by the process of endocytosis with the help of finger-like projections called pseudopodia (Pseudo means false; podia means feet). The flexibility of the plasma membrane enables amoeba to use pseudopodia to engulf food and other material from its environment.

16. **(d)** Enzymes packed in Lysosomes are made through RER (rough endoplasmic reticulum)
Explanation: The undefined nuclear region is the cytoplasm of prokaryotic cells is called nucleoid.
The prokaryotic cells consist of a single chromosome, which is direct content of the cytoplasm /.e., there is no nuclear membrane in a eukaryotic cell, the nuclear envelope separates the nucleus from the cytoplasm.

The nuclear envelope contains many pores (the nuclear pores) and encloses the liquid ground substance, the nucleoplasm. Within nucleoplasm two types of nuclear structures are embedded-the nucleolus and chromatin material. The nucleolus may be one or more in number and is not bounded by any membrane. It is rich in protein and RNA (Ribonucleic Acid) molecules and acts as the site for ribosome formation, hence are also known as factory of ribosomes.

17. **(c)** A Virus
Explanation: Viruses are considered as an intermediate between living and non-living cells because they cannot metabolite and reproduce on their own. They can reproduce only when enters in a host's body. They are an exception to cell theory. A virus crystal is a collection of thousands of viruses. A viral crystal is a pore collection used for chemical studies.

18. **(c)** Golgi apparatus
Explanation: Golgi bodies consist of a system of membrane-bound vesicles arranged in stacks parallel to each other called cisterns. These membranes have connections with the membrane of endoplasmic reticulum (ER). Functions:
(1) It also stores, modifies and helps in the packaging of products in vesicles.
(2) In some cases, complex sugars may be made from simple sugars in it.
(3) It also helps in the formation of lysosomes.

19. **(a)** endoplasmic reticulum
Explanation: The SER helps in the manufacture of fat molecules, or lipids, important for cell function. One function of the ER is to serve as channels for the transport of materials (especially proteins) between various regions of the cytoplasm or between the cytoplasm and the nucleus.

20. **(d)** Protoplasm
Explanation: Protoplasm According to Huxley is the physical basis of life. Inside the cell wall of living cells, the living substance is known as protoplasm and it is a thick fluid or jellylike substance in texture.

21. **(a)** Ribosome
Explanation: Ribosomes are non membrane bound organelles that are found freely occurring in the cytoplasm.

22. **(a)** ribosomes
Explanation: Unlike eukaryotic cell, a prokaryotic cell lacks membrane-bound organelles like plastids, mitochondria and endoplasmic reticulum but smaller and randomly scattered ribosomes are seen.

23. **(a)** Both RNA and Proteins
Explanation: Ribosomes consist of two major components: the small ribosomal subunit, which reads the RNA, and the large subunit, which joins amino acids to form a polypeptide chain. Each subunit is composed of one or more ribosomal RNA (rRNA) molecules and a variety of ribosomal proteins (r-protein).

24. **(a)** (A)
Explanation: Lysosomes are the suicidal bags that kill the cells which are turned off or damaged and became non-functional. They do not secrete anything rather possess some lytic enzymes membrane-bound.

25. **(b)** Lysosome
Explanation: The lysosome is a membrane-bound organelle found in nearly all animal cells. They are spherical vesicles that contain hydrolytic enzymes that can break down many kinds of biomolecules. It is also known as suicidal bags or the Garbage disposal system as it cleans the degenerating cells inside the body.

26. **(a)** A.V. Leeuwenhoek
Explanation: A.V. Leeuwenhoek in 1674 with the improved microscope, discovered free-living cells of algae Spirogyra in pond water for the first time.

27. **(a)** Third law of motion
Explanation: By using Newton’s third law of motion, he can get himself to shore. When the person pushes forward, the reaction force offered by the ice is very little. But, this reaction force will help him to move forward. Hence, Newton's Third Law will help him to reach the shore.

28. **(a)** three
Explanation: Types of Inertia

Inertia of rest: In it a body can't change its state of rest by itself.
Inertia of motion: In it a body can't change its state of motion by itself.
Inertia of direction: In it a body can't change its direction on its own moving in uniform motion.

29. **(d)** momentum
Explanation: Rocket works on the conservation of momentum. In a rocket, the fuel burns and produces gas at high temperature. These gases are ejected out of the rocket from a nozzle at the back side of the rocket. The ejecting gas exerts a forward force on the rocket which help in accelerating. Through the mass of gases escaping per second is very small and their momentum is very large due to their tremendous velocity of escape. An equal and opposite momentum is imparted to the rocket which despite its large mass builds up a high velocity.

30. **(d)** 1000 N
Explanation: The force acting on a body is equal to rate of change of momentum. Change of momentum = 10 Kg/s, time taken = 0.01 second. Force = $\frac{10}{0.01}$ = 1000 N.

31. **(b)** statement B is true
Explanation: A passenger falls backward when a bus suddenly starts moving in the forward direction due to the inertia of rest. A gun recoils backward with a small speed than the bullet moving forward due to the law of conservation of momentum.

32. **(b)** momentum
Explanation:
Momentum remains conserved in absence of any external force. Momentum is the product of the mass and velocity of an object. It is a three-dimensional vector quantity, possessing a magnitude and a direction.

33. **(b)** 1-B, 2-D, 3-A, 4-C
Explanation:
- An unbalanced force cause change in the state of motion i.e. acceleration in a body.
- Inertia has an approach to remain conserved.
- Grease reduces friction which may lead to wear and tear of machine parts.
- Force can be defined as the rate of change of momentum.

34. **(c)** accelerated
Explanation: Coin falls behind due to inertia of motion.Inertia is an inherent property of an object to resist any change in its state of rest or of uniform motion.

35. **(a)** Newton's third law
Explanation: Newton's third law of motion is: For every action, there is an equal and opposite reaction.

36. **(a)** inertia
Explanation: Inertia is the resistance of any physical object to any change in its state of motion. This includes changes to the object's speed, direction, or state of rest.

37. **(c)** your school bag
Explanation: Inertia is the resistance of any physical object to any change in its state of motion. This includes changes to the object's speed, direction, or state of rest. Inertia is proportional to mass. Big masses resist changing their motion more than smaller masses. Schoolbag has the largest inertia because the heavier body has larger inertia.

38. **(b)** 6 m/s
Explanation: If v_2 = x

Since momentum must be conserved, so,
$m_1u_1 + m_2 u_2 = m1v1 + m_2v_2$
$5 \times 3 + 3 \times 10 = 3 \times 5 + 5 \times X$
$15 + 30 = 15 + 5X$
$5X = 45\text{-}15 = 30$
X= $\frac{30}{5} = 6\ m/s$

39. **(b)** Only kinetic energy remains conserved.
Explanation: When the body is dropped from a height, the potential energy decreases, and kinetic energy

increases. After being fallen on the sand potential energy becomes zero and kinetic energy becomes maximum. Thus, a ball dropped from a height will conserve only kinetic energy.

40. **(b)** 1-C, 2-B, 3-D, 4-A

Explanation:

- Frictional force is a contact force that opposes the motion of a body.
- The force which is just enough to bring about change in state and tend a body to motion is called limiting force of friction.
- The force of friction which is just sufficient to make a body slide over any surface is called sliding friction.
- rolling friction acts upon when a body rolls over any surface.

ATOMIC ENERGY CENTRAL SCHOOL NO.4 Rawatbhata

MCQ Examination September (2020-2021)

CLASS 09 - ENGLISH

English

Time Allowed: 30 minutes **Maximum Marks: 40**

1. What does little creature do? (The bond of love) **[1]**

   a) make pitiful noises b) dancing

   c) eating d) none of these

2. Was the author's succeeded in getting back the baba from the zoo in the lesson, **The bond of love**? **[1]**

   a) No b) May be

   c) Don't know d) Yes

3. Bruno took to drinking milk with _____. **[1]**

   a) a can b) a spoon

   c) a bottle d) a glass

4. Why was Bruno delighted? **[1]**

   a) because he was going to the zoo b) because he came back home

   c) because he was going to the forest d) because he was going to park

5. Who was the person the author did present the bear cub in the lesson, **The bond of love**? **[1]**

   a) author's tenants b) author's children

   c) author's wife d) author's parents

6. What did the author's wife request the curator in the lesson, **The bond of love**? **[1]**

   a) none of these b) take care of her baba

   c) give back her baba d) put her baba in a bigger cage

7. What was Bruno's gun? **[1]**

   a) chain b) knife

   c) toy d) stick

8. Did Bruno take an alcoholic drink also? **[1]**

   a) May be b) yes

   c) No d) Maybe not

9. When does a sapling become a tree? **[1]**

   a) slowly consuming the earth b) Takes more place

   c) none of these d) new flowers

10. In the poem, **On Killing A Tree**, what is the meaning of **leprous**? **[1]**

a) rough bark of a tree
b) other part of a tree
c) none of these
d) smooth bark of a tree

11. Where does the strength of a tree lie? **[1]**

a) flowers
b) roots
c) leaves
d) branches

12. In the poem, **On Killing a Tree** the word **bough** means: **[1]**

a) Stem
b) Shoots
c) Roots
d) flower

13. To kill a tree it takes _____. **[1]**

a) much time
b) a moment
c) a year
d) no time

14. How is the strength of a tree exposed? **[1]**

a) fruits
b) roots pulled out
c) new leaves
d) yellow leaves

15. What will again expand to a tree's full size? **[1]**

a) fruits
b) roots
c) green twigs
d) none of these

16. Who is the killer of a tree? **[1]**

a) chopping
b) cutting it down
c) hacking
d) the destruction of the roots

17. How were the reeds described in the poem, **The snake Trying**? **[1]**

a) Yellow coloured
b) Slender and green in colour
c) Fragile
d) Thick

18. What did the man chasing the snake carry? **[1]**

a) A trap
b) A broom
c) A stick
d) A hunter

19. Of which colour is the snake in the poem, **The snake Trying**? **[1]**

a) Green
b) Melange
c) Grey
d) Brown

20. How has the poet described the snake's body movement? **[1]**

a) Beautiful and graceful
b) Ugly
c) Rectilinear
d) Rapid

21. How does the snake pass through the water in the poem, **The snake Trying**? **[1]**

a) It plungs
b) It flies
c) It glides
d) It trots

22. What plea does the poet make to the readers of the poem, **The snake Trying**? **[1]**

a) To kill the snake
b) To beat the snake ruthlessly
c) To trap the snake
d) To let the snake go away

23. What type of poem is, **The snake Trying**? **[1]**

a) Inspirational
b) Humorous
c) Romantic
d) Adventurous

24. What is the central idea of the poem, **The Snake Trying**? **[1]**

a) To not poach wildlife
b) Snakes are fearsome
c) Human beings and snakes are compatible
d) Nature is causing extinction of snakes

25. How old was Prashant in the story, Weathering the Storm in Ersama? **[1]**

a) Nineteen years old
b) Twenty-one years old
c) Eighteen years old
d) Twenty years old

26. How far was Prashant's village from Ersama? (**Weathering the Storm in Ersama)** **[1]**

a) Seventeen kilometres
b) Sixteen kilometres
c) Eighteen kilometres
d) Nineteen kilometres

27. What was the velocity of the wind during the cyclone that hit Ersama in the story, **Weathering the Storm in Ersama**? **[1]**

a) 325 km per hour
b) 350 km per hour
c) 250 km per hour
d) 290 km per hour

28. How did people decide to attract helicopters for food? (Weathering the Storm in Ersama) **[1]**

a) The children lied on the sand with the utensils on their stomach to attract the helicopters.
b) The children stood on the stand with the utensils in their hands to attract the helicopters.
c) The children stood with mirrors to attract the helicopters.
d) The children waved flags to attract the helicopters.

29. Where is Ersama located In India? **(Weathering the Storm in Ersama)** **[1]**

a) Kerala
b) Orissa
c) Karnataka
d) West Bengal

30. Where did Prashant and his friend's family take refuge to escape the waters rising inside the house in the story, **Weathering the Storm in Ersama**? **[1]**

a) In a sheltered home
b) In a nearby camp
c) In the trees
d) On the roof of the house

31. Why did Prashant go to Ersama? **(Weathering the Storm in Ersama)** **[1]**

a) To spend a day with a friend
b) To find work
c) To meet his parents
d) To visit the place

32. Who is the author of the story, **Weathering the Storm in Ersama**? **[1]**

a) Ruskin Bond
b) R. K. Laxman
c) Harsh Mander
d) Oscar Wilde

33. In the story **The Last Leaf**, who was Mr Behrman? **[1]**

a) The doctor
b) The janitor
c) A sixty-year-old painter
d) A seventy-year-old painter

34. Find the word from the story, **The Last Leaf** which means a person whose job is to look after a building. **[1]**

a) Doctor
b) Artist
c) Janitor
d) Painter

35. Wet clothes and shoes, paintbrushes with _____ paints, a ladder and a lighted lantern were the few things observed around Mr. Behrman which suggests the fact that he had painted the masterpiece of the leaf. **[1]**

a) yellow and red
b) yellow and green
c) blue and green
d) purple and green

36. How many characters are there in the story, **The Last Leaf** by O. Henry? **[1]**

a) Four
b) Five
c) Two
d) Three

37. In the text **The Last Leaf**, on which storey of the old house was Sue and Johnsy's flat located? **[1]**

a) First storey
b) Fourth storey
c) Third storey
d) Second storey

38. In the story **The Last Leaf**, who said the following lines? **[1]**
Johnsy it seems, has made up her mind that she is not going to get well.

a) Sue
b) The janitor
c) The doctor
d) Mr Behrman

39. In the short story **The Last Leaf**, who had painted the last leaf of the ivy creeper? **[1]**

a) Sue
b) Mr Behrman
c) The janitor
d) The doctor

40. Who is the author of the prose, **The Last Leaf**? **[1]**

a) Ruskin Bond
b) Oscar Wilde
c) O. Henry
d) Zan Gaudioso

Solution

Class 09 - English

English

1. **(a)** make pitiful noises
   Explanation: The little creature makes pitiful noises in the lesson, The bond of love.
2. **(d)** Yes
   Explanation: Yes, the author's wife succeeded in getting back her baba from the zoo.
3. **(c)** a bottle
   Explanation: Bruno took to drinking milk with a bottle.
4. **(b)** because he came back home
   Explanation: Bruno was delighted because he came back home.
5. **(c)** author's wife
   Explanation: The author presented the bear cub to his wife.
6. **(c)** give back her baba
   Explanation: The author's wife requested to the curator that please give back her baba.
7. **(d)** stick
   Explanation: A stick was Bruno's gun.
8. **(b)** yes
   Explanation: Yes, Bruno took an alcoholic drink too.
9. **(a)** slowly consuming the earth
   Explanation: A sapling will become a tree when it slowly consuming the earth.
10. **(a)** rough bark of a tree
    Explanation: Leprous means rough bark of a tree.
11. **(b)** roots
    Explanation: The strength of a tree lies in its roots.
12. **(b)** Shoots
    Explanation: The word bough means Shoots.
13. **(a)** much time
    Explanation: It takes much time to kill a tree.
14. **(b)** roots pulled out
    Explanation: When its rooted are pulled out from the earth cave, it's strength is to be exposed.
15. **(c)** green twigs
    Explanation: Green twigs will again expand to a tree's full size.
16. **(d)** the destruction of the roots
    Explanation: The tree is finally killed by the destruction of the roots.
17. **(b)** Slender and green in colour
    Explanation: The reeds were thin and green in colour.
18. **(c)** A stick
    Explanation: The man chasing the snake carried a stick to hunt it down.
19. **(a)** Green
    Explanation: The snake is said to have a green coloured body in the poem.
20. **(a)** Beautiful and graceful
    Explanation: The snake makes some swift moves to escape and it squeezes it's the body and slithers in a zig-zag pattern. The poet finds these movements elegant.
21. **(c)** It glides
    Explanation: The snake creeps towards the water body near him to escape from the man chasing him.

22. **(d)** To let the snake go away
Explanation: The poet requests the readers to keep their fears aside and show compassion towards animals. He wishes for the snake's successful escape from the person who was chasing it.

23. **(a)** Inspirational
Explanation: The poem has a deep moral. It motivates the reader to be kind and sympathetic towards other living beings. The poet insists that all creations of the supreme being are beautiful in their own ways.

24. **(a)** To not poach wildlife
Explanation: The poet condemns the unnecessary killing of the animals. He insists that all snakes are not venomous and they attack humans only in self-defence. So we should let them live freely in their habitats.

25. **(a)** Nineteen years old
Explanation: Prashant was nineteen years old but he took leadership in reviving the shelter house to a better condition and provided emotional strength to the 2500 people that had gathered in the shelter house.

26. **(c)** Eighteen kilometres
Explanation: Prashant went to the block headquarters of Ersama which was about eighteen kilometres away from his village, to spend a day with a friend.

27. **(b)** 350 km per hour
Explanation: On the evening of 27 October 1999, a dark and menacing storm quickly gathered over Ersama and caused great destruction in and around the place. The water from the ocean swirled into the house of Prashant's friend but it was built of brick and mortar so was able to withstand the wind which blew at a velocity of 350 km per hour.

28. **(a)** The children lied on the sand with the utensils on their stomach to attract the helicopters.
Explanation: The children were told by the youth team to lie on the sand near the shelter house left by the waters and keep the utensils on their stomachs to attract the helicopters for food.

29. **(b)** Orissa
Explanation: Ersama is a small town located in the coastal region of Orissa.

30. **(d)** On the roof of the house
Explanation: To escape the rising waters inside the house, Prashant and his friend's family took refuge on the roof of the house.

31. **(a)** To spend a day with a friend
Explanation: Prashant went to the block headquarters of Ersama, to spend a day with a friend.

32. **(c)** Harsh Mander
Explanation: The story has been written by the well-known contemporary Indian author Harsh Mander.

33. **(c)** A sixty-year-old painter
Explanation: Mr Behrman was a sixty-year-old painter whose lifelong dream was to paint a masterpiece.

34. **(c)** Janitor
Explanation: The janitor looks after the building where he works, he can be referred to as a caretaker of a building.

35. **(b)** yellow and green
Explanation: yellow and green to paint a leaf.

36. **(b)** Five
Explanation: Henry has used five characters in his story namely Sue, Johnsy, Mr Behrman, the doctor and the janitor where even if the janitor had not played any role directly in the context of the play, his mention in the narrative brings out the fact that it was he who had found Mr Behrman sick and informed the doctor about him, which makes him an important character in the story.

37. **(c)** Third storey
Explanation: The small flat that Sue and Johnsy lived in was on the third storey of an old house.

38. **(c)** The doctor
Explanation: The doctor was worried because Johnsy was not responding to any medication and it seemed to him that she had given up on life and didn't want to live anymore.

39. **(b)** Mr Behrman
Explanation: The last leaf of the ivy creeper that never fell off in spite of tremendous storms and downpour was Mr Behrman's masterpiece that he had painted on one of the stormy nights for Johnsy.

40. **(c)** O. Henry
Explanation: The Last Leaf is a heart-warming and inspiring short story written by the very famous American short-story writer O. Henry.

ATOMIC ENERGY CENTRAL SCHOOL NO.4

RAWATBHATA

CLASS 09 - HINDI A

Hindi MCQ January (2020-21)

Time Allowed: 30 minutes **Maximum Marks: 40**

1. 'यायावरी' शब्द में से मूल शब्द और प्रत्यय अलग कीजिए। **[1]**

   a) यया + वरी
   b) याय + वारी
   c) याया + वरी
   d) यायावर + ई

2. 'मानसिकता' शब्द में से मूल शब्द और प्रत्यय अलग कीजिए। **[1]**

   a) मन + इकता
   b) मानसिक + ता
   c) मानस + इकता
   d) मान + सिकता

3. 'निजत्व' शब्द में से मूल शब्द और प्रत्यय अलग कीजिए। **[1]**

   a) निजता + व
   b) निज + तव
   c) निज + त्व
   d) निजत + व

4. 'बेखटके' का उचित समास विग्रह और समास का नाम होगा - **[1]**

   a) बिना खटके के - समास विग्रह
   कर्मधारय समास - समास का नाम
   b) बिना खटके के - समास विग्रह
   बहुव्रीहि समास - समास का नाम
   c) बिना खटके के - समास विग्रह
   अव्ययीभाव समास - समास का नाम
   d) बिना खटके के - समास विग्रह
   द्विगु समास - समास का नाम

5. 'सात सौ दोहों का समूह' समास विग्रह का उचित समस्त पद और समास का नाम दिए गए विकल्पों में से चुनिए। **[1]**

   a) सतसई - समस्त पद
   द्विगु समास - समास का नाम
   b) सप्तसमूह - समस्त पद
   बहुव्रीहि समास - समास का नाम
   c) सप्तपद - समस्त पद
   कर्मधारय समास - समास का नाम
   d) सातसाईं - समस्त पद
   द्वंद्व समास - समास का नाम

6. 'स्वर्ण जैसा कमल' समास विग्रह के लिए उचित समस्त पद व समास का नाम दिए गए विकल्पों में से चुनिए। **[1]**

   a) स्वर्णकमल - समस्त पद
   बहुव्रीहि समास - समास का नाम
   b) स्वर्णकमल - समस्त पद
   अव्ययीभाव समास - समास का नाम
   c) कमलस्वर्ण - समस्त पद
   द्विगु समास - समास का नाम
   d) स्वर्णकमल - समस्त पद
   कर्मधारय समास - समास का नाम

7. जिन वाक्यों में किसी क्रिया के करने या होने का सामान्य कथन होता है, उन्हें कहते हैं **[1]**

   a) विस्मयादिवाचक वाक्य
   b) इच्छावाचक वाक्य
   c) आज्ञावाचक वाक्य
   d) विधानवाचक वाक्य

8. जिन वाक्यों से कार्य के होने में संदेह या सम्भावना का बोध हो, वे कहलाते हैं - **[1]**

   a) संदेहवाचक वाक्य
   b) सम्भावनावाचक वाक्य

c) संकेतवाचक वाक्य
d) सन्देशवाहक वाक्य

9. यदि सामाजिक दूरी, साफ -सफाई आदि का पालन किया जाता तो कोरोना महामारी को इतना फैलने से रोका जा सकता था । **[1]**
-अर्थ के आधार पर वाक्य भेद बताएं ।

a) प्रश्नवाचक वाक्य
b) निषेधवाचक वाक्य
c) संकेतवाचक वाक्य
d) संदेहवाचक वाक्य

10. कहती हुई यों उत्तरा के नेत्र जल से भर गए। हिम के कणों से पूर्ण मानो हो गए पंकज नए। **[1]**
उपर्युक्त पंक्ति में कौन-सा अलंकार है?

a) उत्प्रेक्षा
b) उपमा
c) रूपक
d) अतिशयोक्ति

11. जहाँ एक या एक से अधिक वर्णों की बार-बार आवृत्ति से चमत्कार उत्पन्न हो, वहां कौन-सा अलंकार होता है? **[1]**

a) यमक
b) श्लेष
c) उपमा
d) अनुप्रास

12. हनुमान की पूंछ में लगन न पाई आग, लंका सिगरी जल गई गए निशाचर भाग। **[1]**
उपर्युक्त पंक्ति में कौन–सा अलंकार है?

a) रूपक
b) उपमा
c) उत्प्रेक्षा
d) अतिशयोक्ति

13. 'कैदी और कोकिला' कविता के अनुसार स्वतंत्रता सेनानियों को जेल में किसके साथ रखा जाता था? **[1]**

a) राजाओं के साथ
b) कोकिला के साथ
c) दासों के साथ
d) अपराधियों के साथ

14. 'कैदी और कोकिला' में 'ब्रिटिश राज का गहना' किसे कहा गया है? **[1]**

a) हथकड़ियों को
b) जेल को
c) जेल की सलाखों को
d) कोयल को

15. कैदी और कोकिला काव्य के अनुसार 'दावानल' क्या है? **[1]**

a) जंगल की आग
b) कोई नहीं
c) आग
d) भूख की आग

16. 'कैदी और कोकिला' कविता के आधार पर बताइए कि जेल में कवि कैसा है? **[1]**

a) एकाकी और उदास
b) खुश
c) गर्वित
d) सम्मानित

17. 'तेरा नभ - भर में संचार, मेरा दस फुट का संसार' - पंक्ति में कवि और कोयल के मध्य कौन सा भाव अभिव्यक्त हुआ है? **[1]**

a) विषमता का
b) दुःख का
c) हर्ष का
d) समानता का

18. 'मोहन के व्रत पर, प्राणों का आसव किसमें भर दूँ' - पंक्ति में 'मोहन' शब्द का प्रयोग किसके लिए हुआ है ? **[1]**

a) कोयल के लिए
b) ब्रिटिश सरकार के लिए
c) कवि के लिए
d) गाँधी जी के लिए

19. 'क्यों हूक पड़ी ? वेदना बोझ वाली - सी' - पंक्ति में प्रयुक्त अलंकार बताइए। **[1]**

a) यमक
b) अनुप्रास
c) उपमा
d) रूपक

20. कैदी और कोकिला के अनुसार 'कैदी' कहाँ है? **[1]**

a) किले में
b) जेल में
c) नदी के किनारे
d) अंग्रजों के पास

21. कवि राजेश जोशी ने अपनी कविता 'बच्चे काम पर जा रहे हैं ' में 'हस्बमामूल' शब्द का प्रयोग किस अर्थ में किया है ? **[1]**

a) सारे गेंदों का खो जाना
b) सभी वस्तुओं का अपने स्थान पर होना
c) विद्यालयों का भूकंप में नष्ट हो जाना
d) दीमक द्वारा सारी पुस्तकों का नाश कर देना

22. काम करने कौन जा रहा है? **[1]**

a) पिताजी
b) सभी
c) माँ
d) छोटे-छोटे बच्चे

23. हमारे समय की सबसे भयानक पंक्ति है यह **[1]**
भयानक है इसे विवरण की तरह लिखा जाना
लिखा जाना चाहिए इसे सवाल की तरह
काम पर क्यों जा रहे हैं बच्चे ?
कवि राजेश जोशी की कविता 'बच्चे काम पर जा रहे हैं ' की इन पंक्तियों में 'भयानक' क्या हैं ?

a) विवरण की तरह लिखा जाना
b) बच्चों का काम पर जाना
c) प्रश्न की तरह लिखा जाना
d) सबका चुप रहना

24. बच्चे काम पर जा रहे है काव्य के अनुसार बच्चों से क्या छीना गया है? **[1]**

a) उनका बचपन
b) किताबें
c) खिलौने
d) घर

25. कवि राजेश जोशी ने अपनी कविता 'बच्चे काम पर जा रहे हैं ' में 'ज्यादा भयानक' क्या मना है? **[1]**

a) पूरा संसार
b) चीजों का यथावत होना व बच्चों का काम पर जाना
c) चीजों का यथावत होना
d) सड़कों का बच्चों से भरा होना

26. क्या अंतरिक्ष में गिर गई हैं सारी गेंदे **[1]**
क्या दीमकों ने खा लिया है,सारी रंग-बिरंगी किताबों को
क्या किसी भूकंप में ढह गई हैं,सारे मदरसों की इमारतें
कवि राजेश जोशी की कविता 'बच्चे काम पर जा रहे हैं ' की इन पंक्तियों में कौन-सा शब्द उर्दू भाषा का नहीं है

a) किताब
b) अंतरिक्ष
c) इमारत
d) मदरसे

27. कवि राजेश जोशी की कविता 'बच्चे काम पर जा रहे हैं ' में किस की दशा का वर्णन किया है? **[1]**

a) रंग-बिरंगी किताबों को दीमकों द्वारा खाया जाना
b) गेंदों का अंतरिक्ष में जाना
c) मदरसों का खत्म होना
d) बच्चों का काम पर जाना

28. कवि राजेश जोशी अपनी कविता 'बच्चे काम पर जा रहे हैं ' में बच्चों का काम पर जाना किस रूप में प्रकट करना चाहते हैं? **[1]**

a) चिंता के रूप में
b) विवरण की तरह

c) निषेधात्मक की तरह
d) प्रश्न की तरह

29. कवि राजेश जोशी ने विशेष रूप से किस विषय को अपने साहित्य में स्थान दिया है? (बच्चे काम पर जा रहे हैं) **[1]**

a) देश प्रेम
b) ऐतिहासिक वर्णन
c) सामाजिक चित्रण
d) प्रकृति प्रेम

30. बच्चे काम पर जा रहे है काव्य के अनुसार लोगों की उदासीनता का कारण क्या है? **[1]**

a) सभी
b) सामाजिक जिम्मेदारियों की उपेक्षा
c) नैतिक, जिम्मेदारी
d) जागरूकता की कमी

31. माटी वाली घरों की लिपाई के लिए किस मिट्टी का प्रयोग करती थी ? **[1]**

a) लैटेराइट मिट्टी
b) लाल मिट्टी
c) काली मिट्टी
d) दलदली मिट्टी

32. 'शहरवासी सिर्फ माटीवाली को ही नहीं, उसके _____ को भी पहचानते हैं।'- रिक्त स्थान में उपयुक्त शब्द भरें। **[1]**

a) औज़ार
b) कंटर
c) तसला
d) बाल्टी

33. 'माटी वाली' पाठ में वर्णित टिहरी शहर किन दो नदियों के तट पर बसा है ? **[1]**

a) गंगा नदी और टोंस नदी
b) भागीरथी और भीलंगना नदी
c) नेत्रवती और गुरपुरा नदी
d) कूवम और अड्यार नदी

34. 'भूख मीठी कि भोजन मीठा ' का अर्थ माटीवाली पाठ के आधार पर बताएं- **[1]**

a) मिठास भूख में होती है ।
b) मिठास भोजन में होती है ।
c) भूख के कारण ही भोजन मीठा व स्वादिष्ट लगता है ।
d) भूख और भोजन अलग अलग महत्त्व रखते हैं ।

35. माटी वाली का घर पर इंतजार कौन करता था? **[1]**

a) उसका बुड्ढ़ा पति
b) उसका बीमार बुड्ढ़ा पति
c) उसका बीमार बेटा
d) कोई भी नहीं

36. 'भूख तो अपनेआप में एक साग होती है बुढ़िया। ' यह वाक्य किसने किससे कहा ? 'माटीवाली' पाठ के आधार पर उचित विकल्प चुनिए। **[1]**

a) मालकिन ने बूढ़े पति से
b) बुढ़िया ने अपने पति से
c) माटीवाली ने अपनी मालकिन से
d) मालकिन ने माटीवाली से

37. किस शहर के सभी लोग माटीवाली को जानते थे ? **[1]**

a) कीर्तिनगर
b) घनसाली शहर
c) चम्बा शहर
d) टिहरी शहर

38. कंटर ज़मीन पर रखते ही सामने के घर से माटीवाली को बुलाने वाली छोटी लड़की का क्या नाम था ? 'माटीवाली' पाठ के आधार पर उचित विकल्प चुनिए। **[1]**

a) कामिनी
b) सरला
c) कमला
d) यामिनी

39. 'माटीवाली' कथा मुख्यतः किस समस्या को उजागर करती है **[1]**

a) बेकारी की समस्या

b) भुखमरी की समस्या

c) दहेज की समस्या

d) विस्थापन की समस्या

40. रोटियों का हिसाब लगाना उसकी किस तरह की मजबूरी को प्रकट करता है ? 'माटीवाली' पाठ के आधार पर उत्तर दीजिए। **[1]**

a) रोटी खाना

b) घोर दरिद्रता

c) पति को खिलाना

d) सब्जी लाना

Solution

Class 09 - Hindi A

Hindi MCQ January (2020-21)

1. **(d)** यायावर + ई
   Explanation: 'यायावरी' में 'यायावर' मूल शब्द और 'ई' प्रत्यय है।
2. **(b)** मानसिक + ता
   Explanation: 'मानसिकता' शब्द में 'मानसिक' मूल शब्द है और 'ता' प्रत्यय है।
3. **(c)** निज + त्व
   Explanation: 'निजत्व' शब्द में 'निज' मूल शब्द है और 'त्व' प्रत्यय है।
4. **(c)** बिना खटके के - समास विग्रह
   अव्ययीभाव समास - समास का नाम
   Explanation: 'बेखटके' में पूर्वपद 'बे' अव्यय होने के कारण अव्ययीभाव समास है।
5. **(a)** सतसई - समस्त पद
   द्विगु समास - समास का नाम
   Explanation: यहाँ पूर्व पद (सप्त) संख्यावाची विशेषण है इसलिए यहाँ द्विगु समास होगा।
6. **(d)** स्वर्णकमल - समस्त पद
   कर्मधारय समास - समास का नाम
   Explanation: यहाँ पूर्वपद विशेषण और उत्तरपद विशेष्य होने के कारण कर्मधारय समास है।
7. **(d)** विधानवाचक वाक्य
   Explanation: किसी भी कार्य के करने व होने का सामान्य कथन विधानवाचक वाक्य में होता है।
8. **(a)** संदेहवाचक वाक्य
   Explanation: संदेह व संभावना को संदेहवाचक वाक्यों द्वारा व्यक्त किया जाता है।
9. **(c)** संकेतवाचक वाक्य
   Explanation: एक क्रिया दूसरी क्रिया पर निर्भर होने के कारण यहां संकेतवाचक वाक्य है ।
10. **(a)** उत्प्रेक्षा
    Explanation: उत्प्रेक्षा I स्पष्टीकरण - उपर्युक्त पंक्ति में एक वस्तु में दूसरी की संभावना की गई है I
11. **(d)** अनुप्रास
    Explanation: अनुप्रास I जैसे- मुदित महीपति मंदिर आए। ('म' वर्ण की आवृत्ति बार- बार है)
12. **(d)** अतिशयोक्ति
    Explanation: अतिशयोक्ति अलंकार I स्पष्टीकरण - उपर्युक्त पंक्ति में बढ़ा-चढ़ाकर वर्णन किया गया है कि हनुमान की पूंछ में आग लगने से पहले ही लंका जल गई और राक्षस भाग गए।
13. **(d)** अपराधियों के साथ
    Explanation: कवि के अनुसार जेल में स्वतंत्रता सेनानियों और अपराधियों को एक साथ ही रखा जाता था और दोनों के साथ एक सा व्यवहार किया जाता था क्योंकि अंग्रेजों की नज़रों में स्वतंत्रता सेनानी भी अपराधी ही थे।
14. **(a)** हथकड़ियों को
    Explanation: कवि के अनुसार देश प्रेम के कारण पहनी हुई हथकड़ियाँ तो किसी गहने से कम नहीं हैं।
15. **(a)** जंगल की आग
    Explanation: जंगल की आग
16. **(a)** एकाकी और उदास
    Explanation: कवि जेल में बंद है। वह अपनी कोठरी में अकेला है इसलिए वह उदास है।
17. **(a)** विषमता का
    Explanation: यहाँ कोयल और कवि के मध्य विषमता के भाव की अभिव्यक्ति हुई है क्योंकि कवि तो कोठरी में बंद है और कोयल खुले आसमान में घूम रही है।
18. **(d)** गाँधी जी के लिए
    Explanation: गाँधी जी का पूरा नाम मोहनदास करमचन्द गाँधी है। अतः 'मोहन' का प्रयोग यहाँ गाँधी जी के लिए हुआ है।
19. **(c)** उपमा
    Explanation: 'सी' वाचक शब्द आने के कारण यहाँ उपमा अलंकार है।

20. **(b)** जेल में
Explanation: जेल में

21. **(b)** सभी वस्तुओं का अपने स्थान पर होना
Explanation: बच्चों के लिए जरूरी होता है गेंद, पुस्तकें, विद्यालय आदि का होना। सभी वस्तुएं अपने स्थान पर है परंतु छोटे-छोटे बच्चे काम पर जा रहे हैं।

22. **(d)** छोटे-छोटे बच्चे
Explanation: छोटे-छोटे बच्चे

23. **(b)** बच्चों का काम पर जाना
Explanation: बच्चों का पढ़ने न जाकर काम पर जाना और किसी का प्रश्न करना भयानक माना है।

24. **(a)** उनका बचपन
Explanation: उनका बचपन

25. **(b)** चीजों का यथावत होना व बच्चों का काम पर जाना
Explanation: बच्चे देश का भविष्य होते हैं। स्कूल न जाकर सुबह-सुबह वे काम पर जाएं तो देश का भविष्य उज्जवल नहीं हो सकता। कवि ने इसे भयानक माना है।

26. **(b)** अंतरिक्ष
Explanation: अंतरिक्ष हिंदी का तत्सम शब्द है।

27. **(d)** बच्चों का काम पर जाना
Explanation: बच्चों का काम पर जाना। कविता का मुख्य विषय बच्चों का काम पर जाने का वर्णन करना है।

28. **(d)** प्रश्न की तरह
Explanation: प्रश्न की तरह। कवि प्रश्न करना चाहता है कि क्यों बच्चों को काम में भेज कर उनका बचपन छीन लिया गया ।

29. **(c)** सामाजिक चित्रण
Explanation: कवि ने आधुनिक युग की पीड़ा और आपाधापी से उत्पन्न परेशानी को अपनी कविताओं में वाणी प्रदान की है।

30. **(a)** सभी
Explanation: सभी

31. **(b)** लाल मिट्टी
Explanation: माटी वाली घरों की लिपाई के लिए लाल मिट्टी का प्रयोग करती थी ।

32. **(b)** कंटर
Explanation: 'शहरवासी सिर्फ माटीवाली को ही नहीं , उसके कंटर को भी पहचानते हैं ।'

33. **(b)** भागीरथी और भीलंगना नदी
Explanation: टिहरी बाँध के बनने से पहले का टिहरी शहर (पुरानी टिहरी) भगीरथी और भीलंगना नदी के तट पर बसा था ।

34. **(c)** भूख के कारण ही भोजन मीठा व स्वादिष्ट लगता है ।
Explanation: भूख के कारण ही भोजन स्वादिष्ट लगता है । बिना भूख स्वादिष्ट से स्वादिष्ट व्यंजन महत्त्व नही रखता ।

35. **(b)** उसका बीमार बुड्ढ़ा पति
Explanation: उसका बीमार बुड्ढ़ा पति

36. **(d)** मालकिन ने माटीवाली से
Explanation: माटीवाली द्वारा चाय को साग बताने पर मालकिन कहती है कि जब भूख लगती है तो बिना साग के ही रोटी अच्छी लगती है।

37. **(d)** टिहरी शहर
Explanation: टिहरी शहर का प्रत्येक व्यक्ति माटी वाली को जानता था ।

38. **(a)** कामिनी
Explanation: माटीवाली को घर के सामने वाले घर से बुलाने वाली छोटी लड़की का नाम कामिनी था।

39. **(d)** विस्थापन की समस्या
Explanation: इस कहानी में विस्थापन का दर्द बताया गया है ।

40. **(b)** घोर दरिद्रता
Explanation: माटीवाली द्वारा रोटियों का हिसाब करना उसकी घोर दरिद्रता को प्रकट करता है। वह इतनी गरीब थी कि एक समय मिलने वाली रोटी भी भी हिसाब से खानी पड़ती थी। यदि वह ऐसा नहीं करती तो उसे और उसके पति को भूखा ही सोना पड़ता।

ATOMIC ENERGY CENTRAL SCHOOL NO.4

RAWATBHATA

CLASS 09 - MATHEMATICS

Maths MCQ Test January

Time Allowed: 40 minutes **Maximum Marks: 40**

1. The difference of semi-perimeter and the sides of $\triangle ABC$ are 8, 7 and 5 cm respectively. Its semi-perimeter 's' is **[1]**

   a) 5 cm b) 15 cm

   c) 10 cm d) 20 cm

2. Area of an equilateral triangle of side 10 cm is : **[1]**

   a) $50\sqrt{3}$ cm^2 b) $100\sqrt{3}$ cm^2

   c) $10\sqrt{3}$ cm^2 d) $25\sqrt{3}$ cm^2

3. If one side and one diagonal of a rhombus and 20 m and 24 m, then its area = **[1]**

   a) $384m^2$ b) $284m^2$

   c) $192m^2$ d) $96m^2$

4. The sides of a triangle are 50 cm, 78 cm and 112 cm. The smallest altitude is **[1]**

   a) 20 cm b) 50 cm

   c) 40 cm d) 30 cm

5. If each side of a $\triangle$ is halved then its perimeter will be decreased by **[1]**

   a) 200% b) 25 $\%$

   c) 70 $\%$ d) 50%

6. The base of an isosceles triangle is 16 cm and its area is 48 cm^2. The perimeter of the triangle is **[1]**

   a) 48 cm b) 324 cm

   c) 41 cm d) 36 cm

7. The product of difference of semi-perimeter & respective sides of $\triangle ABC$ are given as 13200 m^2.The area of $\triangle ABC$, if its semi-perimeter is 132 m, is given by **[1]**

   a) 1320 m^2 b) $13200\ m^2$

   c) $132\ m^2$ d) $20\sqrt{33}\ m^2$

8. The area of a right-angled triangle if the radius of its circumcircle is 3 cm and altitude drawn to the hypotenuse is 2 cm. is **[1]**

   a) 4 cm^2 b) 3 cm^2

   c) 6 cm^2 d) 8 cm^2

9. The base and hypotenuse of a right triangle are respectively 5 cm and 13 cm long. it is area is: **[1]**

a) 30 cm^2 b) 28 cm^2

c) 25 cm^2 d) 40 cm^2

10. The area and length of one diagonal of a rhombus are given as 200 cm^2 and 10 cm respectively. The length of other diagonal is **[1]**

a) 25 cm b) 10 cm

c) 40 cm d) 20 cm

11. In a shower, 5 cm of rain falls. What is the volume of water that falls on 2 hectares of ground? **[1]**

a) 800 m^3 b) 1000 m^3

c) 500 m^3 d) 750 m^3

12. A solid cylinder is melted and cast into a cone of same radius. The heights of the cone and cylinder are in the ratio **[1]**

a) 3 : 1 b) 1 : 9

c) 9 : 1 d) 1 : 3

13. The diameter of a sphere is 6 cm. It is melted and drawn into a wire of diameter 2 mm. The length of the wire is **[1]**

a) 12 m b) 36 m

c) 66 m d) 18 m

14. If each edge of a cube, of volume V, is doubled, then the volume of the new cube is **[1]**

a) 2 V b) 8 V

c) 6 V d) 4 V

15. In a cylinder, if radius is halved and height is doubled, the curved surface area will be **[1]**

a) same b) four times

c) halved d) doubled

16. A sphere of diameter 12.6 cm is melted and cast into a right circular cone of height 25.2 cm. The radius of the base of the cone is **[1]**

a) 2.1 cm b) 4 cm

c) 6.3 cm d) 6 cm

17. If the height of a cylinder is doubled and radius remains the same, then volume will be **[1]**

a) four times b) same

c) halved d) doubled

18. In a sphere the number of faces is **[1]**

a) 2 b) 1

c) 3 d) 4

19. A solid lead ball of radius 6 cm is melted and then drawn into a wire of diameter 0.2 cm. The **[1]**

length of wire is

a) 296 m
b) 292 m
c) 288 m
d) 272 m

20. A cone, a hemisphere and a cylinder stand on equal bases and have the same height. The ratio of their volumes is **[1]**

a) 3 : 2 : 1
b) 2 : 1 : 3
c) 1 : 2 : 3
d) 2 : 3 : 1

21. The lateral surface area of a cube is 256 m^2 The volume of the cube is **[1]**

a) $216\ m^3$.
b) $512\ m^3$.
c) $64\ m^3$.
d) $256\ m^3$.

22. The curved surface area of a right circular cylinder which just encloses a sphere of radius r is **[1]**

a) $2\pi r^2$
b) $4\pi r^2$
c) $8\pi r^2$
d) $6\pi r^2$

23. The height of a cone is 21 cm and its slant height is 28 cm. The volume of the cone is **[1]**

a) 7356 cm^3
b) 7506 cm^3
c) 7564 cm^3
d) 7546 cm^2

24. A cylindrical rod whose height is 8 times of its radius is melted and recast into spherical balls of same radius. The number of balls will be **[1]**

a) 6
b) 3
c) 4
d) 8

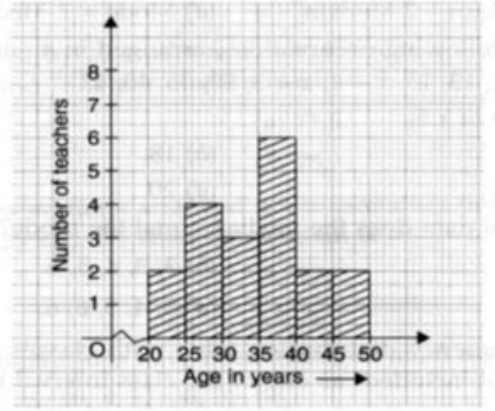
25. The volume of a right circular cone of height 12 cm and base radius 6 cm, is **[1]**

a) (12 π) cm^3
b) (72 π) cm^3
c) (36 π)cm^3
d) (144 π)cm^3

26. The volume of a sphere is 38808 cm^3. Its curved surface area is **[1]**

a) 1386 cm^2
b) 8316 cm^2
c) 5544 cm^2
d) 4158 cm^2

27. The graph given below shows the frequency distribution of the age of 22 teachers in a school. The number of teachers whose age is less than 40 years is **[1]**



a) 17 b) 16

c) 15 d) 14

28. The empirical relation between mean, mode and median is **[1]**

a) Mode = 3 Mean - 2 Median b) Mode = 3 Median + 2 Mean

c) Mode = 3 Median - 2 Mean d) Mode = 2 Median - 3 Mean

29. When the data consists of 3, 4, 5, 4, 3, 4, 5, which statement is true? **[1]**

a) Mean = mode b) mean > mode

c) Median < mode d) Mean > median

30. The numbers 2, 3, 4, 4, 2x + 1, 7, 7, 8 and 9 are written in an ascending order. If the median is 7, then mode of this data is **[1]**

a) 7 b) 8

c) 4 d) 9

31. The mean of the following data is 8. **[1]**

X	3	5	7	9	11	13
y	6	8	15	p	8	4

Then, the value of p is

a) 25 b) 23

c) 21 d) 24

32. If each observation of the data is increased by 5, then their mean. **[1]**

a) Is decreased by 5 b) Becomes 5 times the original mean

c) Is increased by 5 d) Remains the same

33. The median of the data 78, 56, 22, 34, 45, 54, 39, 68, 54, 84 is **[1]**

a) 56 b) 54

c) 49.5 d) 45

34. The marks obtained by 17 students in a mathematics test (out of 100) are given below : **[1]**
91, 82, 100, 100, 96, 65, 82, 76, 79, 90, 46, 64, 72, 68, 66, 48, 49.
Find the range of the data.

a) 90 b) 46

c) 100 d) 54

35. If $\bar{x}$ represents the mean of observations $x_1, x_2, \ldots, x_n$, then value of $\sum_{i=1}^{n}(x_i - \bar{x})$is **[1]**

a) - 1 b) 1

c) n – 1 d) 0

36. The mean of 100 items was found to be 64. Later on it was discovered that two items were misread as 26 and 9 instead of 36 and 90 respectively. The correct mean is **[1]**

a) 65.31 b) 64.91

c) 64.86 d) 64.61

37. Which of the following is not a measure of central tendency? **[1]**

a) Mean b) Median

c) Mode d) Standard deviation

38. The width of each of five continuous classes in a frequency distribution is 5 and the lower class limit of the lowest class is 10. The upper class limit of the highest class is **[1]**

a) 15 b) 25

c) 35 d) 40

39. The difference between the upper and the lower class limits is called **[1]**

a) mean b) class size

c) frequency d) mid-points

40. In a histogram the class intervals or the groups are taken along **[1]**

a) X-axis b) Y-axis

c) both of X-axis and Y-axis d) in between X and Y axis

Solution

Class 09 - Mathematics

Maths MCQ Test January

1. **(d)** 20 cm

   Explanation: Given: s - a = 8 cm, s - b = 7 cm and s - c = 5 cm

   Adding all equations,

   s - a + s - b + s - c = 8 + 7 + 5

   $\Rightarrow$ 3s - (a + b + c) = 20 [s = $\frac{a+b+c}{2}$]

   $\Rightarrow$ 3s - 2s = 20

   $\Rightarrow$ s = 20 cm

2. **(d)** $25\sqrt{3}$ cm^2

   Explanation: Area of equilateral triangle = $\frac{\sqrt{3}}{4}(\text{Side})^2$

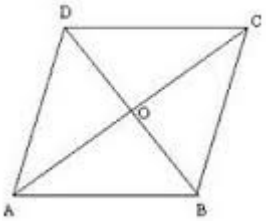
   = $\frac{\sqrt{3}}{4}(10)^2$

   = $25\sqrt{3}$ sq. cm

3. **(a)** $384m^2$

   Explanation:

   Since diagonals of a rhombus bisect each other at right angle.

   OB = $\frac{24}{2}$ = 12 m

   In triangle OBC, OC = $\sqrt{20^2 - 12^2} = \sqrt{400 - 144}$ = 16 m

   AC = 2 $\times$ 16 = 32 m

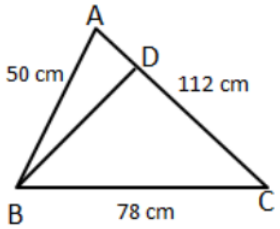
   Area of rhombus = $\frac{1}{2}\times$ Product of diagonals

   = $\frac{1}{2}\times$ 24 $\times$ 32

   = 384 sq. m

4. **(d)** 30 cm

   Explanation:

   The smallest altitude is $\perp$ drawn to the largest side of a Δ from opposite point.

   i.e. BD Area of $\Delta = \frac{1}{2} \times$ Ac $\times$ BD = $\frac{1}{2} \times$ 112 $\times$ BD = 56 $\times$BD

   s = $\frac{50+78+112}{2}$ = 120cm

   s - AB = 70 cm, s - BC = 42 cm, s - AC = 8 cm

   Area = $\sqrt{s(s-AB)-(s-BC)(s-AC)}$

   $= \sqrt{120 \times 70 \times 42 \times 8}$

   = 1680 cm^2

   Now, 56$\times$BD = 1680 cm^2

   $\Rightarrow$ BD= $\frac{1680}{56}$ = 30 cm

5. **(d)** 50%

   Explanation: Perimeter of triangle with sides a, b and c is P = a + b + c. .....(i)

New sides are $\frac{a}{2}, \frac{b}{2}, \frac{c}{2}$

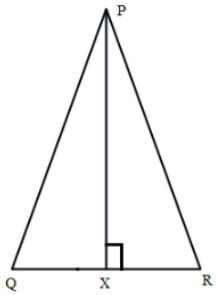
New perimeter = $\frac{a+b+c}{2} = \frac{P}{2}$. (From eq.(i))

Decreased perimeter = P - $\frac{P}{2} = \frac{P}{2}$

% of decreased perimeter = $\frac{P/2}{P} \times 100$ = 50%

6. **(d)** 36 cm

Explanation:



Let $\triangle$PQR be an isosceles triangle and PX $\perp$ QR

Now,

Area of triangle = 48 cm^2

$\Rightarrow \frac{1}{2} \times QR \times PX$ = 48

$\Rightarrow h = \frac{96}{16} = 6\text{cm}$

Also,

$QX = \frac{1}{2} \times 24$ = 12 cm and PX = 12 cm

$PQ = \sqrt{QX^2 + PX^2}$

$a = \sqrt{8^2 + 6^2} = \sqrt{64 + 36} = \sqrt{100} = 10\text{cm}$

$\therefore$ Perimeter = (10 + 10 + 16) cm = 36 cm

7. **(a)** 1320 m^2

Explanation: Given: $(s-a)(s-b)(s-c) = 13200$ m and s = 132 m

Area of triangle = $\sqrt{s(s-a)(s-b)(s-c)}$

= $\sqrt{13200 \times 132}$

= 1320 sq. m

8. **(c)** 6 cm^2

Explanation: Since in a right-angled triangle, the circumcentre is the mid-point of the hypotenuse, then

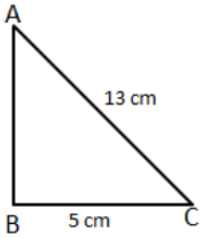
Hypotenuse = 2 $\times$ 3 = 6 cm

Now, Area of right-angled triangle = $\frac{1}{2} \times$ Base $\times$ Altitude

= $\frac{1}{2} \times 6 \times 2$ = 6 sq. cm

9. **(a)** 30 cm^2

Explanation:



AB = $\sqrt{(13)^2 - (5)^2} = 12$ cm

Area = $\frac{1}{2} \times \text{BC} \times \text{AB} = \frac{1}{2} \times 5 \times 12$

= 30 cm^2

10. **(c)** 40 cm

Explanation: Area of rhombus = $\frac{1}{2} \times$ Product of diagonal

$\Rightarrow$ 200 = $\frac{1}{2} \times 10 \times d_2$

$\Rightarrow d_2 = \frac{200 \times 2}{10}$ = 40 cm

11. **(b)** 1000 m^3

Explanation: 1 hectare = 10000 m^2

2 hectare = 20000 m^2

1 cm = 0.01 m $\Rightarrow$ 5 cm = 0.05 m

Volume of water that falls on 2 hectares of ground = 20000 $\times$ 0.05 m^3 = 1000 m^3

12. **(a)** 3 : 1

Explanation: since the cylinder is re cast into a cone both their volumes should be equal.

So, let Volume of the cylinder = Volume of the cone

= V

It is also given that their base radii are the same

= r

Let the height of the cylinder and the cone be $h_{cylinder}$ and h_{cone} respectively.

The formula of the volume of a cone with base radius 'r' and vertical height 'h' is given as

Volume of cone $= \frac{1}{3}\pi r^2 h$

The formula of the volume of a cylinder with base radius 'r' and vertical height 'h' is given as

Volume of cylinder $= \pi r^2 h$

So, we have

$$\frac{\text{Volume of cone}}{\text{Volume of cylinder}} = \frac{\frac{1}{3}\pi r^2 h_{\text{cone}}}{\pi r^2 h_{\text{cylinder}}}$$

$$\Rightarrow \frac{V}{V} = \frac{\frac{1}{3}h_{\text{cone}}}{h_{\text{cylinder}}}$$

$$\frac{h_{\text{cone}}}{h_{\text{cylinder}}} = \frac{3}{1}$$

13. **(b)** 36 m

Explanation: Radius of the sphere = 3 cm

Volume of a sphere = $\frac{4}{3}\pi r^3$

= $\frac{4}{3}\pi(3)^3$

= 36 π cm^3

On recasting a sphere into cylinder wire, the volume will remain same

Volume of a cylinder = πr^2 h

1cm = 10 mm

$\Rightarrow$ 2mm = 0.2 cm

Radius = 0.1 cm

$\Rightarrow \pi(0.1)^2$ h = 36π

$\Rightarrow$ h = $36 \times \frac{1}{0.01}$

$\Rightarrow$ h = 3600 cm

$\Rightarrow$ h = 36 m ($\because$ 1 m = 100 cm)

14. **(b)** 8 V

Explanation: Let edge = a

Volume, V = a^3

If a' = 2a, then

V' = $(a')^3 = (2a)^3 = 8a^3$

V' = 8 V

15. **(a)** same

Explanation: CSA of original cylinder = 2πrh

CSA of new cylinder = 2 $\times$ π $\times$ $\frac{r}{2}$ $\times$ 2h

= 2πrh

16. **(c)** 6.3 cm

Explanation: Radius of the sphere = 6.3 cm

Volume of a sphere = $\frac{4}{3}\pi r^3$

Volume of a sphere = $\frac{4}{3}\pi(6.3)^3$ cm^3

Volume of a cone = $\frac{1}{3}\pi r^2 h$

Volume of a cone = $\frac{1}{3}\pi r^2 \times 25.2$

= 8.4 πr^2 cm^3

On recasting a sphere into a cone, volume will remain same

8.4 πr^2 = $\frac{4}{3}\pi(6.3)^3$

$\Rightarrow r^2 = \frac{4}{3}(6.3)^3 \times \frac{1}{8.4}$ = 39.69

$\Rightarrow$ r = 6.3 cm

17. **(d)** doubled

Explanation: Let V_1 be the volume of the cylinder with radius r_1 and height h_1, then

$V_1 = \pi r_1^2 h_1$ ..... (i)

Now, let V_2 be the volume after changing the dimension, then

$r_2 = r_1$, $h_2 = 2h_1$

So,

$V_2 = \pi r_2^2 h_2 = \pi \times r_1^2 \times 2h_1$

$\Rightarrow V_2 = 2 \times \pi r_1^2 h_1 = 2V_1$

18. **(b)** 1

Explanation: Faces are the flat surface on a 3D figure.

Thus, cone has one flat surface, i.e., the base.

Number of faces of a sphere = 1

19. **(c)** 288 m

Explanation: Volume of a sphere = $\frac{4}{3}\pi r^3$ = $\frac{4}{3}\pi(6)^3$ = 288 π cm^3

On recasting a sphere into cylinder, the volume will remain same.

Volume of a cylinder = $\pi r^2 h$

Radius = 0.1 cm

$\Rightarrow \pi(0.1)^2$ h = 288π

$\Rightarrow$ h = $288 \times \frac{1}{0.01}$

= 28800 cm

= 288 m ($\because$ 1m = 100 m)

h = 288 m

20. **(c)** 1 : 2 : 3

Explanation: Volume of a hemisphere = (2/3)πr^3

Volume of a right circular cone = (1/3)$\pi r^2 h$

Volume of a cylinder = $\pi r^2 h$

Given, a cone, a hemisphere and a cylinder stand on equal bases and have the same height.

Height of a hemisphere is the radius and equal bases implies equal base radius.

Thus, height of cone = height of cylinder = base radius = r

Ratio of volumes = (1/3)$\pi r^2 h$: (2/3)πr^3 : $\pi r^2 h$

$\Rightarrow$ Ratio of volumes = $r^3 : 2r^3 : 3r^3$ = 1 : 2 : 3

21. **(b)** $512\ m^3$.

Explanation: LSA of cube = 4 × side²

256 = 4 side²

Side² = 256/4

= 64

Side = 8m

Volume of cube = $side^3 = 8^3$

= 8×8×8

= 512m^3

22. **(b)** $4\pi r^2$
Explanation: Here, height of cylinder would be equal to diameter of sphere i.e. 2r
So, CSA of the cylinder is 2πrh
= 2πr(2r)
= $4\pi r^2$

23. **(d)** 7546 cm^2
Explanation: Volume of cone = $\frac{1}{3}\pi r^2 h$
slant height = L = $\sqrt{r^2 + h^2}$
Substituting values we get = r = $\sqrt{343}$ cm
Volume of cones = $\frac{1}{3} \times \frac{22}{7} \times 343 \times 21$ = 7546 cm^3

24. **(a)** 6
Explanation: Volume of a sphere = (4/3)πr^3
Volume of a cylinder = $\pi r^2 h$
Given, cylindrical rod whose height is 8 times of its radius is melted and recast into spherical balls of same radius.
Let the number of such balls be 'a'.
$\Rightarrow \pi \times r^2 \times 8r = a \times (4/3)\pi \times r^3$
$\Rightarrow$ a = 6

25. **(d)** (144 π)cm^3
Explanation: Volume of the cone = $\frac{1}{3}\pi r^2 h$
= $\frac{1}{3}\pi \times 6^2 \times 12$
= $\pi \times 36 \times 4$
= 144 π cm^3

26. **(c)** 5544 cm^2
Explanation: Volume of a sphere = $\frac{4}{3}\pi r^3$
Given Volume = 38808 cm^3
$\Rightarrow \frac{4}{3}\pi r^3$ = 38808
$\Rightarrow r^3 = 38808 \times \frac{21}{88}$ = 9261
$\Rightarrow$ r = 21 cm
Surface area of a sphere = $4\pi r^3$
Surface area = $4 \times \frac{22}{7}(21)^2$ = 5544 cm^2

27. **(c)** 15
Explanation: Add the values corresponding to the height of the bar before 40.
6 + 3 + 4 + 2 = 15

28. **(c)** Mode = 3 Median - 2 Mean
Explanation: For frequency distribution: mean, mode & median connected by the relation
mean - mode = 3(mean - median)
Thus,
mode = 3 median - 2 mean

29. **(a)** Mean = mode
Explanation: The mean is equal to the sum of all the values in the data set divided by the number of values in the data set.
Mean of the given data is (3+3+4+4+4+5+5) ÷7 = 4.
The mode in a list of numbers refers to the integers that occur most number of times.
So the mode is also 4.
Hence mean = mode

30. **(a)** 7

Explanation: The median is the middle score for a set of data that has been arranged in ascending or descending order of magnitude.

Since 2x + 1 is in the middle of the arranged numbers, so it is median

Hence, 2x + 1 = 7

Now since 7 occurs more number of times then other numbers so mode of the list is 7.

31. **(a)** 25

Explanation:

x	y	x × y
3	6	18
5	8	40
7	15	105
9	p	9p
11	8	88
13	4	52
Total	41 + p	303 + 9p

Now,

Mean = $\frac{303+9p}{41+p}$

Given :

Mean = 8

$\therefore \frac{303+9p}{41+p} = 8$

$\Rightarrow$ 303 + 9p = 328 + 8p

$\Rightarrow$ p = 25

32. **(c)** Is increased by 5

Explanation: Is increased by 5

Then, old mean $\bar{x}_{old} = \frac{\sum_{i=1}^{n} x_i}{n}$

Now, adding 5 in each observation, the new mean becomes

$\bar{x}_{\text{new}} = \frac{(x_1+5)+(x_2+5)+\cdots+(x_n+5)}{n}$

$\Rightarrow \quad \bar{x}_{\text{new}} = \frac{(x_1+x_2+\cdots+x_n)+5n}{n}$

$\Rightarrow \quad \bar{x}_{\text{new}} = \frac{\sum_{i=1}^{n} x_i}{n} + 5 = \bar{x}_{\text{old}} + 5$

$\Rightarrow \quad \bar{x}_{\text{new}} = \bar{x}_{\text{old}} + 5$

Hence, the new mean is increased by 5.

33. **(b)** 54

Explanation: First, we arrange the given observations in ascending order as follows

22, 34, 39, 45, 54, 54, 56, 68, 78 and 84

Here, total number of observation, n = 10

Since, n is even, so we use the formula for median,

Median $= \frac{\left(\frac{n}{2}\right)^{-1} \text{observation} + \left(\frac{n}{2}+1\right) \text{ th observation}}{2}$

$= \frac{\left(\frac{10}{2}\right)\text{th observation} + \left(\frac{10}{2}+1\right) \text{ th observation}}{2}$ [put n = 10]

$= \frac{5 \text{ th observation} + 6 \text{ th observation}}{2} = \frac{54+54}{2} = \frac{108}{2} = 54$

Hence, the median of given data is 54.

34. **(d)** 54

Explanation: Highest Marks = 100

Lowest Marks = 46
Range of data = 100 - 46 = 54

35. **(d)** 0
Explanation: Since mean is equal to the sum of all the values in the data set divided by the number of values in the data set also called as average.
Hence, sum of difference of all the numbers & mean value will be zero.

36. **(b)** 64.91
Explanation: Mean of 100 items = 64
Sum of 100 items = 64 $\times$ 100 = 6400
Correct sum = (6400 + 36 + 90 - 26 - 9) = 6491
Correct mean = $\frac{6491}{100}$ = 64.91

37. **(d)** Standard deviation
Explanation: A measure of central tendency is a single value that attempts to describe a set of data.
Mean, median and mode are the measures of central tendency.
Standard deviation is not the measure of central tendency.

38. **(c)** 35
Explanation: The classes are 10-15,15-20,20-25,25-30,30-35 so that upper limit of the highest class is 35

39. **(b)** class size
Explanation: The difference between the upper class limit and the lower class limit is called class size.

40. **(a)** X-axis
Explanation: Histogram states that a two dimensional frequency density diagram is called as a histogram. The histograms are diagrams which represent the class interval and the frequency in the form of a rectangle. There will be as many adjoining rectangles as there are class intervals.

ATOMIC ENERGY CENTRAL SCHOOL NO.4

RAWATBHATA

CLASS 09 - SCIENCE

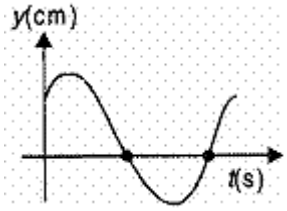
SCIENCE MCQ (JANUARY-2021)

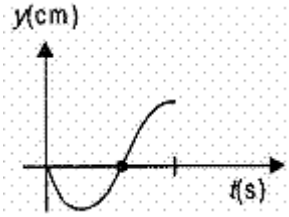
Time Allowed: 30 minutes **Maximum Marks: 40**

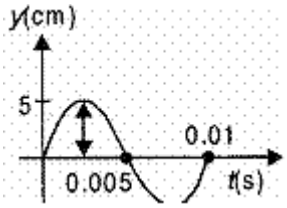
1. Separation between compression and rarefaction is _____ the wavelength. **[1]**

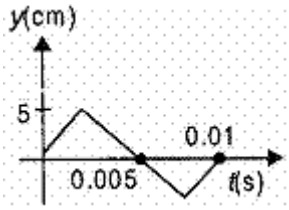
   a) half
   b) one fourth
   c) one third
   d) twice

2. The wave having an amplitude of 5 cm and frequency f = 100 Hz can be best represented by **[1]**

   a) 

   b) 

   c) 

   d) 

3. The audible range of frequencies for a normal human being is _____ to _____ Hertz. **[1]**

   a) 30 to 30,000
   b) 20 to 20,000
   c) 40 to 40,000
   d) 10 to 10,000

4. The types of wave produced by sound in air: **[1]**

   a) Electro magnetic wave
   b) Transverse wave
   c) Longitudinal wave
   d) Radio waves

5. The minimum size of a room required to hear an echo of sound with a speed of 300 m/s is **[1]**

   a) 17 m
   b) 15 m
   c) 16 m
   d) 14 m

6. Sound travels in air if **[1]**

   a) there is no moisture in the atmosphere
   b) both particles as well as disturbance travel from one place to another
   c) disturbance moves
   d) particles of medium travel from one place to another

7. A pulse was created in a slinky/string of length 4 m by a group of students. They observed that it returned, after reflection, at the point of creation 6 times in 10 seconds and calculated the speed as follows: **[1]**

Students	A	B	C	D
Speed m/s	0.4	2.4	4.8	9.6

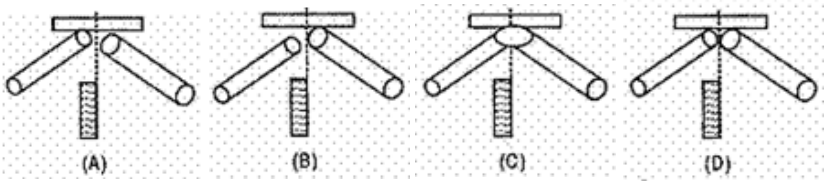
The correct speed was calculated by the student:

a) B
b) D
c) A
d) C

8. Sonic booms are caused due to the variation of **[1]**

a) pressure
b) humidity
c) loudness
d) speed

9. Which of the following is the correct experimental set-up for verification of laws of reflection of sound? **[1]**



a) D
b) C
c) A
d) B

10. A pulse **[1]**

a) is a short duration disturbance
b) does not repeat
c) all of these
d) can travel

11. Shyamal was calculating the velocity of the wave using a slinky. He asked his teacher regarding the features of spring to be used. The teacher replied that the spring should be. **[1]**

a) Long, soft and flexible
b) Short, hard and flexible
c) Short, soft and flexible
d) Long, soft but not flexible

12. In a wave motion in string, every particle: **[1]**

a) displaces from one end to the other end
b) does not displace at all
c) oscillates
d) does not oscillate

13. When a pulse is sent through slinky/string, the physical quantity that travels along its length is: **[1]**

a) speed
b) wavelength
c) frequency
d) energy

14. Identify the set of diseases which spread through little droplets that are let in the air by infected persons. **[1]**

a) Pneumonia and tuberculosis
b) Common cold and ringworm
c) Pneumonia and cholera
d) Chicken pox and typhoid

15. Match the following with correct response: **[1]**

(a) Genetic disease	(i) Diabetes
(b) Deficiency disease	(ii) Haemophilia
(c) Metabolic disorder	(iii) AIDS
(d) Infectious disease	(iv) Goitre

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

16. Which of the following is not transferred by houseflies? **[1]**

a) AIDS
b) Cholera
c) Dysentery
d) Typhoid

17. Which one of the following is not a viral disease? **[1]**

a) AIDS
b) Typhoid
c) Influenza
d) Dengue

18. We can fool our immune system into developing memory for a particular infection by **[1]**

a) providing clean environment and hygienic food
b) living in places that are not overcrowded
c) vaccination/immunisation
d) providing safe drinking water

19. Diseases affect the organs depending on the point of entry into the body. Identify the diseases from the following, which enters our body through mosquito bite and reaches the brain: **[1]**

a) Polio
b) Malaria
c) Encephalitis
d) Dengue

20. Vectors can be define as **[1]**

a) infected person
b) diseased plants
c) animals carry the infecting agents from sick person to another healthy person
d) microorganisms which cause many diseases

21. Which one of the following is not a bacterial disease? **[1]**

a) Tuberculosis
b) Cholera
c) Influenza
d) Anthrax

22. Which one of the following is not important for individual health ? **[1]**

a) Living in clean space
b) Social equality and harmony
c) Living in a large and well furnished house
d) Good economic condition

23. Antibiotics used in treatment of bacterial and fungal diseases are **[1]**

a) toxins produced by bacteria.
b) drugs manufactured to kill viruses.
c) products of metabolism in some
d) the names of useful bacteria.

bacteria.

24. Making anti-viral drugs is more difficult than making anti-bacterial medicines because **[1]**

a) viruses have very few biochemical mechanisms of their own
b) viruses are on the border line of living and non-living
c) viruses make use of host machinery
d) viruses have a protein coat

25. The severity of the disease manifestation depends on **[1]**

a) the nutrition we have
b) the organ infected/affected.
c) the strength of the infectious agent.
d) the number of microbes causing the disease.

26. 'Penicillin', a life-saving antibiotic, was discovered by**:** **[1]**

a) William Harvey
b) Alexander Fleming
c) Edward Jenner
d) H.G. Khorana

27. The process in which the active immune system employs many cells to the affected tissue, is called **[1]**

a) inflammation
b) infestation
c) invasion
d) infection

28. What is the source of water pollution in India? **[1]**

a) Both Industrial discharge and Municipal sewage
b) Municipal sewage
c) Bathing
d) Industrial discharge

29. Daytime temperature of moon is _____ **[1]**

a) 90^oC
b) 60^oC
c) 110^oC
d) 70^oC

30. Oxygen is returned to the atmosphere mainly by **[1]**

a) photosynthesis
b) fungi
c) respiration
d) burning of fossil fuel

31. Major source of minerals in soil are the - **[1]**

a) Animals
b) Parent rock from which soil is covered
c) Plants
d) Bacteria

32. Oxygen is harmful for **[1]**

a) mango tree
b) ferns
c) chara
d) nitrogen fixing bacteria

33. Fill in the gap using a given analogy. **[1]**
Acid rain : Sulphur dioxide :: Ozone hole : _____

a) CO_2

b) Methane

c) SO_2

d) CFC

34. In nitrogen cycle, which bacteria are responsible for nitrification? **[1]**

a) Nitrosomonas and Nitrobacter

b) Nitrobacter

c) Rhizobium

d) Nitrosomonas

35. Rainfall patterns depend on **[1]**

a) the prevailing season in an area

b) the density pattern of human population in an area

c) the underground water table

d) the number of water bodies in an area

36. Which of the following is a recently originated problem of environment ? **[1]**

a) Ozone layer depletion

b) Global warming

c) All of these

d) Greenhouse effect

37. Marked temperature changes in aquatic environment can affect **[1]**

a) process of digestion in animal

b) availability of nutrients

c) more growth of aquatic plants

d) breeding of animals

38. What happens when rain falls on soil without vegetational cover? **[1]**

a) Rain water leads to fertility of the soil

b) Rain water percolates in soil efficiently

c) Rain water causes loss of surface soil

d) Rain water does not cause any change in soil

39. Find the incorrect statement **[1]**

a) Denitrification is oxidation of NH_3into nitrate.

b) Natural gas is about 80% methane.

c) The annual rainfall is from 100 cm to 200 cm in intermediate zone

d) Biotechnology is mainly based on the principle of ‘fermentation’.

40. Which step is not involved in the carbon cycle? **[1]**

a) Respiration

b) Photosynthesis

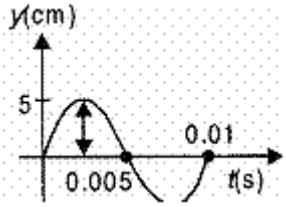
c) Burning of fossil fuels

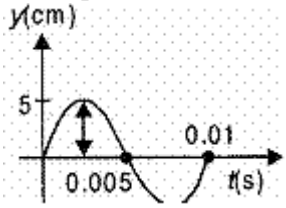
d) Transpiration

Solution

Class 09 - Science

SCIENCE MCQ (JANUARY-2021)

1. **(a)** half
   Explanation: Wavelength is the length between two consecutive peaks, i.e. crest or two consecutive valleys, i.e. trough of a wave. Wavelength is represented by the Greek letter λ (lambda). Distance between crest and trough is half the wavelength = $\lambda/2$.
2. **(c)** 

   Explanation: In this graph, amplitude represents on y-axis and frequency on the x-axis. The wave having an amplitude of 5 cm and frequency f = 100 Hz can be best represented by a given graph.


3. **(b)** 20 to 20,000
   Explanation: The audible range of an average human ear lies between 20 Hz to 20,000 Hz. Humans cannot hear sounds having a frequency less than 20 Hz and greater than 20,000 Hz.
4. **(c)** Longitudinal wave
   Explanation: Sound is a longitudinal wave.
5. **(b)** 15 m
   Explanation: The total distance covered by the sound from the point of generation to the reflecting surface and back should be at least (300 m/s) $\times$ 0.1 s = 30 m. Thus, for hearing distinct echoes, the minimum distance of the obstacle from the source of sound must be half of this distance. i.e., 30/2 = 15 m.
6. **(c)** disturbance moves
   Explanation: Sound travels in air if disturbance moves. As during the propagation of sound waves, particles only vibrates in its own position and disturbances created by the vibration of particle moves from one place to other.
7. **(d)** C
   Explanation: Speed= $\frac{Distance}{Time}$
   Here
   distance = 8m
   Time taken is given as: t = $\frac{10}{6}$ secs
   Speed = $\frac{8}{\frac{10}{6}} = 8 \times \frac{6}{10} = 4.8$ m/s
8. **(a)** pressure
   Explanation: A sonic boom is caused by the pressure change across the shock wave. The pressure from sonic booms caused by aircraft often is a few pounds per square foot.
9. **(a)** D
   Explanation: $\angle$ r = $\angle$i at the point of incidence
10. **(c)** all of these
    Explanation: Pulse is a short duration disturbance. Pulse does not repeat. Pulse is formed in small portion and Pulse disturbance is momentary.

11. **(a)** Long, soft and flexible
Explanation: More elastic and lengthier the spring will be, the motion of a pulse can be studied batter.

12. **(c)** oscillates
Explanation: Oscillation will be perpendicular to the length or direction of energy transfer. Activity that carries energy from one place to another without actually moving any matter is a wave motion.

13. **(d)** energy
Explanation: Wave transfers energy. Energy travels through a wave.

14. **(a)** Pneumonia and tuberculosis
Explanation: Many common infections can spread by airborne transmission at least in some cases, including Anthrax (inhalational), Chickenpox, Pneumonia, Influenza, Measles, Smallpox, Cryptococcosis, and Tuberculosis.

15. **(a)** (a) - (ii), (b) - (iv),(c) - (i), (d) - (iii)
Explanation:
    - Haemophilia is a mostly inherited genetic disorder that impairs the body's ability to make blood clots. Clotting is a process needed to stop bleeding. This results in people bleeding longer after an injury, easy bruising, and an increased risk of bleeding inside joints or the brain.
    - Goiter (swelling in the neck resulting from an enlarged thyroid gland) is a deficiency disease. It is caused by the deficiency of iodine.
    - Diabetes is a group of metabolic disorders in which a person has high blood sugar levels over a prolonged period.
    - AIDS is an infectious disease caused by a virus.

16. **(a)** AIDS
Explanation: AIDS

17. **(b)** Typhoid
Explanation: Typhoid, fever, cholera, tuberculosis, anthrax are causes by Bacteria. Common cold, influenza, dengue, fever, AIDS causes by viruses.

18. **(c)** vaccination/immunisation
Explanation: We fool the immune system of the human body into developing memory for particular infection by putting something that mimics the microbes we want to vaccinate against, into the body. This does not actually cause the disease but this would prevent any subsequent exposure to the infecting microbe from turning into actual disease.

19. **(c)** Encephalitis
Explanation: Encephalitis is irritation and swelling (inflammation) of the brain, most often due to infections.

20. **(c)** animals carry the infecting agents from sick person to another healthy person
Explanation: Some animals work as vehicles to transfer infection from one person to another. Such animals are called vectors.

21. **(c)** Influenza
Explanation: Typhoid, fever, cholera, tuberculosis, anthrax are causes by Bacteria. Common cold, influenza, dengue, fever, AIDS are causes by viruses

22. **(c)** Living in a large and well furnished house
Explanation: The garbage thrown in open places, overflowing drains or sewer water, stagnant water, etc., are the places where disease-causing microbes multiply and mosquitoes and flies breed. These mosquitoes and flies act as carriers of disease-causing microbes. As a result, diseases may spread in the community and affect individual health. Thus, public cleanliness is important for individual health. Living in a large and well furnished house is not important for individual health.

23. **(c)** products of metabolism in some bacteria.
Explanation: A substance that stops the growth of bacteria or kills the bacteria is called an antibiotic. Antibiotic is given to treat or prevent bacterial infection.

24. **(a)** viruses have very few biochemical mechanisms of their own
Explanation: Antibiotics commonly block biochemical pathways important for bacteria. These kill the bacteria by inhibiting its growth. But the same antibiotics do not work on viruses. Because viruses do not use biochemical pathways such as bacteria and they have few biochemical mechanisms of their own.

25. **(d)** the number of microbes causing the disease.
Explanation: The severity of the disease depends on the organ or part of the body infected, age of an infected person, number of microbes causing the disease, and the signs and symptoms. For example, Malaria causing protozoans enters the human body through a mosquito, affects the liver and red blood cells.

26. **(b)** Alexander Fleming
Explanation: 'Penicillin' is an antibiotic. It was discovered by Alexander Fleming. It is one of the first, and still one of the most widely used antibiotic agents, derived from the Penicillium mold. It works by indirectly bursting bacterial cell walls. Edward Jenner is credited with the discovering of vaccination.

27. **(a)** inflammation
Explanation: Inflammation is the immune response of the body. It is an attempt by the body to remove harmful stimuli and start the curing process. Inflammation is mostly localised reaction which results in the redness of the area, releases heat and sometimes causes irritation. In chronic cases inflammation also causes swelling. Inflammation can be acute or chronic in nature.

28. **(a)** Both Industrial discharge and Municipal sewage
Explanation: The largest source of water pollution in India is untreated sewage. Other sources of pollution include agricultural runoff and unregulated small scale industry. Most rivers, lakes, and surface water in India are polluted.

29. **(c)** $110^{o}C$
Explanation: Temperatures on the moon are very hot in the daytime, about $110^{o}C$. At night, the lunar surface gets very cold, as cold as minus $173^{o}C$.

30. **(a)** photosynthesis
Explanation: The main driving factor of the oxygen cycle is photosynthesis, which is responsible for the modern Earth's atmosphere and life.

31. **(b)** Parent rock from which soil is covered
Explanation: Parent rocks mainly composed of mineral elements like pottasium,calcium, iron in form of salts

32. **(d)** nitrogen fixing bacteria
Explanation: Nitrogen fixing bacteria are found in anaerobic conditions, i.e., absence of oxygen.

33. **(d)** CFC
Explanation: Acid rain is caused by a chemical reaction that begins when compounds like sulfur dioxide and nitrogen oxides are released into the air. CFCs are protected from ultraviolet radiation by the ozone layer itself.

34. **(a)** Nitrosomonas and Nitrobacter
Explanation: Some micro-organisms (Nitrobacteria, Nitrosomonas) convert ammonia into nitrates. The process is called nitrification.

35. **(d)** the number of water bodies in an area
Explanation: Rainfall pattern depends upon number of water bodies in an area. Greater the water bodies, greater is the evaporation. This sets the operation of water cycle and hence rainfall patterns depends on number of water bodies in an area.

36. **(c)** All of these
Explanation: Ozone layer depletion, Greenhouse effect and Global warming all are recently originated problem of environment.

37. **(d)** breeding of animals
Explanation: The eggs and larvae of various aquatic animals are susceptible to temperature changes. As

the aquatic organisms are used to a certain range of temperature in the water body where they live, and sudden marked change in this temperature would be dangerous for them or affect their breeding.

38. **(c)** Rain water causes loss of surface soil
Explanation: Vegetational cover on the ground helps to the hold the soil in place. It also helps in percolating water into the deeper layers of the soil. Absence of vegetational cover may lead to soil erosion.

39. **(a)** Denitrification is oxidation of NH_3 into nitrate.
Explanation: Denitrification is a microbially facilitated process where nitrate is reduced and ultimately produces molecular nitrogen (N_2) through a series of intermediate gaseous nitrogen oxide products.

40. **(d)** Transpiration
Explanation: The photosynthesis convert carbon dioxide from atmosphere or dissolved in water into glucose. These glucose molecules are either converted into other substances or used to provide energy for synthesis of other biologically important molecules. Then by respiration, both consumers and producers return carbon dioxide to atmosphere. The combustion of fossil fuels(Coal,petroleum) during cooking,heating,transportation,industrial processes adds carbon dioxide to atmosphere. Transpiration is not involved in the carbon cycle.

ATOMIC ENERGY CENTRAL SCHOOL NO.4

RAWATBHATA

CLASS 09 - SOCIAL SCIENCE

MCQ Test January

Time Allowed: 30 minutes **Maximum Marks: 40**

1. Which calender did Russia use until February 1918? **[1]**

   a) Persian calender b) Sumerian calender

   c) Gregorian calender d) Roman calender

2. What was the Russian Parliament called? **[1]**

   a) Duma b) Tsar

   c) Weimar Republic d) Reichstag

3. Who sought to build a cooperative community called New Harmony? **[1]**

   a) Louis Blank b) Robert Owen

   c) Karl Marx d) Montesquieu

4. Who was the king of Russia in 1914? **[1]**

   a) Rasputin b) Karl Marx

   c) Tsar Nicholas-I d) Tsar Nicholas-II

5. What does the word Soviet mean? **[1]**

   a) A revolutionary organisation b) Security police

   c) Duma d) An autonomous organisation of Russia

6. Karl Marx was against which society? **[1]**

   a) Royal b) Secular

   c) Capitalist d) Democratic

7. Who was called whites during the Russian Civil war? **[1]**

   a) Socialist revolutionaries b) Pro-tsarist

   c) Russian women d) The tsar's family

8. Name the Muslim reformers within the Russian empire. **[1]**

   a) Khans b) Siddiquis

   c) Pathans d) Jadidists

9. Who propounded the idea of a communist society? **[1]**

   a) Napoleon b) Karl Marx

   c) Rousseau d) Robert Owen

10. Which group did not believe in Universal Adult Franchise in Russia? **[1]**

a) Conservatives
b) Liberals
c) Radicals
d) Kulaks

11. Which of the following is not the feature of mountain vegetation? **[1]**

a) A wide range of species is found in the mountains according to the variation in height.
b) These trees are called coniferous trees.
c) Sal, teak, peepal, neem, and shisham are important trees of these forests.
d) Chir, Pine and Deodar are important trees of these forests.

12. India has large variety of forest due to variation in: **[1]**

a) Plains and rainfall
b) Relief and rainfall
c) Relief and plains
d) Relief and flood

13. Why leaves of thorn forests mostly thick and small? **[1]**

a) So that plants can get minimum sunlight.
b) To minimize photosynthesis.
c) To maximise evaporation.
d) To minimize evaporation.

14. Under which of the following type of vegetation trees shed their leaves for about 6 to 8 weeks in dry summer? **[1]**

a) The thorn forests
b) Tropical Evergreen forests
c) Tropical Deciduous forests
d) Mediterranean type of vegetation

15. Which of the following type of vegetation is found in the areas of coasts influenced by tides? **[1]**

a) Tropical evergreen forests
b) Tropical deciduous forests
c) Mediterranean type of vegetation
d) Mangrove forests

16. In which of the following region/state the wild ass is found? **[1]**

a) Arid areas of Madhya Pradesh
b) Assam
c) Arid areas of Rann of Kachchh
d) Manipur

17. Which of the following has not been included in the world network of Biosphere Reserves? **[1]**

a) Sunderbans
b) Nanda Devi
c) Nilgiris
d) Manas

18. Which one of the following states does not have the Tropical deciduous forests? **[1]**

a) Rajasthan
b) Chhattisgarh
c) Jharkhand
d) Western Orissa

19. Read the feature and identify the vegetation : A. The trees reach great height upto 60m or even above. B. There is no definite time for trees to shed their leaves. **[1]**

a) Mediterranean type of vegetation
b) Mangrove forests
c) Tropical deciduous forests
d) Tropical Evergreen forests

20. Which is the most important tree of moist deciduous forests? **[1]**

a) Rubber
b) Sundri
c) Peepal
d) Teak

21. In which region of the world poverty has risen up? **[1]**

a) None of these
b) Europe
c) Sub Saharan Africa
d) Asia

22. Which of the following scheme is to create self-employment opportunities for educated unemployed youth in rural areas and small towns? **[1]**

a) NFWP
b) WRTC
c) AAY
d) PMRY

23. Which of the following country has highest poverty ratio? **[1]**

a) Nigeria
b) Pakistan
c) China
d) India

24. What is MNREGA? **[1]**

a) Marginal National Rural Employment Guarantee Act.
b) Mahatama Gandhi National Rural Employment Guarantee Action.
c) Marginal Natural Rural Employment Guarantee Act.
d) Mahatama Gandhi National Rural Employment Guarantee Act.

25. Which of the following yojna provide additional central assistance to states for basic services such as primary education, health, etc.? **[1]**

a) PMGY
b) AAY
c) SGSY
d) NREGA

26. Which of the following are the components of human poverty? **[1]**

i. Education
ii. Health
iii. Shelter

a) Only (ii) and (iii)
b) Only (i) and (iii)
c) All of these
d) Only (i) and (ii)

27. In which of the following country poverty has decreased substantially? **[1]**

a) Bangladesh
b) China
c) Russia
d) India

28. For how many days NRGEA provide employment? **[1]**

a) 100
b) 90
c) 70
d) 80

29. Which of the following group is not a vulnerable group to poverty? **[1]**

a) Scheduled Tribes
b) Urban casual labourers

c) Rural agriculturalist
d) Upper Caste

30. Which of the following state has the lowest poverty rate? **[1]**

a) Madhya Pradesh
b) Jammu and Kashmir
c) Goa
d) Orissa

31. Political leaders come under **[1]**

a) Long term executive
b) Political executive
c) Temporary executive
d) Permanent executive

32. 'Democratic governments insist on institutions'. Choose the appropriate answer. **[1]**
A. Institutions make it difficult to rush through a bad decision.
B. They provide an opportunity for a wider set of people to be consulted in any decision.

a) Both A and B are true
b) A is false but B is true
c) Both A and B are false
d) A is true but B is false

33. Which of the houses of Parliament is more powerful than others? **[1]**

a) Lok Sabha
b) Rajya Sabha
c) None of These
d) Both Rajya Sabha and Lok Sabha

34. Who appoints Chief Justice of India? **[1]**

a) Speaker
b) Prime Minister
c) President
d) Deputy Speaker

35. Who is the Supreme Commander of the defence forces of India? **[1]**

a) Deputy Speaker
b) President
c) Prime Minister
d) Speaker

36. What is an office memorandum? **[1]**

a) None of these
b) Memorandum given by an office.
c) Order issued by the Government of India.
d) Important Defense Documents.

37. Who headed the Second Backward Classes Commission in 1979? **[1]**

a) D S Kothari
b) B P singh
c) Chandrashekhar
d) B P Mandal

38. Which of the following organization have the power to settle disputes arising out of governmental decisions? **[1]**

a) The Cabinet and the Parliament.
b) High Court and District Courts.
c) Indian Courts and the President.
d) The supreme Court and the High Courts.

39. Which is the highest forum of discussion and debate? **[1]**

a) Lok Sabha
b) Cabinet

c) Parliament

d) Rajya Sabha

40. Which of the following enjoys more power in case of money bill? **[1]**

a) State Legislative Assemblies

b) The Cabinet

c) Rajya Sabha

d) Lok Sabha

Solution

Class 09 - Social Science

MCQ Test January

1. **(c)** Gregorian calender
   Explanation: The Russians used the Gregorian calender until 1918 after which they started using the Soviet Eternal calender.
2. **(a)** Duma
   Explanation: The Russian elected Parliament was called Duma which made laws for the country.
3. **(b)** Robert Owen
   Explanation: Robert Owen
4. **(d)** Tsar Nicholas-II
   Explanation: Tsar Nicholas -II was crowned as the king in 1894. He was abdicated in 1917.
5. **(d)** An autonomous organisation of Russia
   Explanation: Soviet in Russian language means a council or an organisation of workers.
6. **(c)** Capitalist
   Explanation: Karl Marx thought that the Serfs exploit the peasants so he was against the accumulation of wealth by few people in the society.
7. **(b)** Pro-tsarist
   Explanation: The anti-bolsheviks or pro-tsarists were called as the 'whites'.
8. **(d)** Jadidists
   Explanation: Jadidist were the Muslim modernist reformers within the Russian empire. They normally called themselves as progressives and intellectuals.
9. **(b)** Karl Marx
   Explanation: Karl Marx
10. **(b)** Liberals
    Explanation: The liberals did not believe in giving voting rights to women.
11. **(c)** Sal, teak, peepal, neem, and shisham are important trees of these forests.
    Explanation: In Mountain Vegetation a wide range of species is found in the mountains according to the variation in height. At a height between 1500 metres and 2500 metres most of the trees are conical in shape. These trees are called coniferous trees. Important trees are Chir, Pine, Deodar. sal, teak, peepal, neem, and shisham are important trees int tropical Deciduous Forests.
12. **(b)** Relief and rainfall
    Explanation: Different types of natural vegetation are dependent on different climatic conditions, among which the amount of rainfall is very important. Forest is also natural vegetation. India has a large variety of forest due to variation in Relief and rainfall.
13. **(d)** To minimize evaporation.
    Explanation: In Thorn forests, trees are scattered and have long roots penetrating deep into the soil in order to get moisture. The stems are succulent to conserve water. Leaves have a special feature. To minimize evaporation, leaves are mostly thick and small.
14. **(c)** Tropical Deciduous forests
    Explanation: Trees of the most widespread Tropical Deciduous forests shed their leaves for about six to eight weeks in dry summer.
15. **(d)** Mangrove forests
    Explanation: Dense mangroves are the common varieties of tidal forests found in the areas of coasts influenced by tides with roots of the plants submerged underwater.
16. **(c)** Arid areas of Rann of Kachchh
    Explanation: Arid areas of the Rann of Kachchh are the habitat for wild ass.

17. **(d)** Manas
Explanation: Fourteen biosphere reserves have been set up in the country to protect flora and fauna. Four out of these, the Sunderbans in the West Bengal, Nanda Devi in Uttaranchal, the Gulf of Mannar in Tamil Nadu, and the Nilgiris (Kerala, Karnataka and Tamil Nadu) have been included in the world network of Biosphere reserves. Manas is not included in Biosphere Reserve.

18. **(a)** Rajasthan
Explanation: MP, UP, Bihar, Jharkhand, Chattisgarh, Odisha, and in parts of Maharashtra have the Tropical deciduous forests but Rajasthan has horny Bushes forest.

19. **(d)** Tropical Evergreen forests
Explanation: Some of the features of Tropical Evergreen forests are :
a) The trees reach great heights up to 60 metres or even above.
b)There is no definite time for trees to shed their leaves.As such, these forests appear green all the year round.

20. **(d)** Teak
Explanation: Teak, Bamboos, sal, shisham, sandalwood, khair, kusum, arjun, mulberry are other commercially important species of Moist deciduous forests. Among them, Teak is the most dominant species of this forest.

21. **(c)** Sub Saharan Africa
Explanation: The world poverty has risen up in Sub Saharan Africa region.

22. **(d)** PMRY
Explanation: PMRY (Prime Minister Rozgar Yojna) scheme is to create self-employment opportunities for educated unemployed youth in rural areas and small towns.

23. **(a)** Nigeria
Explanation: Nigeria has highest poverty ratio. It has 62% of population below $1.25 a day.

24. **(d)** Mahatama Gandhi National Rural Employment Guarantee Act.
Explanation: MNREGA stands for Mahatama Gandhi National Rural Employment Guarantee Act (2005).

25. **(a)** PMGY
Explanation: PMGY (Pradhan Mantri GramodayaYozana) provide additional central assistance to states for basic services such as primary education, health, etc.

26. **(c)** All of these
Explanation:
i. Education
ii. Health
iii. Shelter

27. **(b)** China
Explanation: Poverty in China has reduced substantially, from 85% in 1981 to 6% in 2011.

28. **(a)** 100
Explanation: NRGEA provides employment for 100 days.

29. **(d)** Upper Caste
Explanation: Upper Caste group is not vulnerable group to poverty.

30. **(c)** Goa
Explanation: Goa has the lowest poverty rate.

31. **(b)** Political executive
Explanation: A politician who is elected by the people for a specific period is called the political executive. Political leaders who take big decisions fall into this category.

32. **(d)** A is true but B is false
Explanation: Presence of various institutions ensures that a broad consensus is arrived at before any major decision is taken. Institutions also prevent a bad decision being rushed into

33. **(a)** Lok Sabha
Explanation: Lok Sabha may be considered to be the more powerful House of Parliament due to the

following reasons:

i. 1. A Money Bill can be introduced in the Lok Sabha only and not in Rajya Sabha and Rajya Sabha cannot do much to stop its passage. It can only delay it by 14 days.

ii. Any Ordinary law needs to be passed by both the houses, but if there is any difference between the two houses, the final decision is taken in a joint session of both the houses. Because of the large number of members, the view of the Lok Sabha is preferred.

34. **(c)** President
Explanation: All major appointments are made in the name of the President. These include the appointment of the Chief Justice of India, the Judges of the Supreme Court and the High Courts of the states, the Governors of the states, the Election Commissioners, ambassadors to other countries, etc. Hence, the Chief Justice of India is appointed by President.

35. **(b)** President
Explanation: All international treaties and agreements are made in the name of the President. The President is the supreme commander of the defence forces of India.

36. **(c)** Order issued by the Government of India.
Explanation: On August 13, 1990, the Government of India issued an Order. It was called an Office Memorandum. Basically it is the communication issued by an appropriate authority stating policy or decision of the government.

37. **(d)** B P Mandal
Explanation: The Government of India had appointed the Second Backward Classes Commission in 1979. It was headed by B.P. Mandal. Hence it was popularly called the Mandal Commission.

38. **(d)** The supreme Court and the High Courts.
Explanation: In case of disputes arising out of governmental decisions the Supreme Court and the High Courts in India settles it.

39. **(c)** Parliament
Explanation: Parliament is the highest forum of discussion and debate on public issues and national policy in any country. Parliament can seek information about any matter.

40. **(d)** Lok Sabha
Explanation: Lok Sabha exercises more powers in money matters. Once the Loksabha passes the budget of the government or any other money related law, the Rajya Sabha cannot reject but can only delay it by 14 days.