

ATOMIC ENERGY CENTRAL SCHOOL, INDORE
Annual Examination - 2020-21

Class: VII
Subject: SCIENCE

Time: 2 Hours 15 Minutes
Marks: 70

General Instructions:

1. This question paper consists of four sections A, B, C and D.
 2. Section A has 25 questions and each carries 1 mark.
 3. Section B has 6 questions and each carries 2 marks.
 4. Section C has 6 questions and each carries 3 marks.
 5. Section D has 3 questions and each carries 5 marks.
 6. Draw a neat and well labelled diagram wherever necessary.
 7. All the questions in this question paper are compulsory.
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SECTION A

I. Choose the correct answer in the following questions :- (1 Marks × 25 = 25 Marks)

1. Yeast is used in wine and beer industries because it respire
(a) aerobically producing oxygen
(b) aerobically producing alcohol
(c) anaerobically producing alcohol
(d) anaerobically producing CO₂
2. Spiracles on the body of insect are connected to a network of thin air tubes called
(a) lungs
(b) tracheae
(c) gills
(d) blow holes
3. Minimum loss of energy takes place while we are
(a) walking
(b) swimming
(c) running
(d) sleeping
4. In plants, food is transported through
(a) Xylem
(b) Phloem
(c) Stomata
(d) Root hair

5. The absorption of nutrients and exchange of respiratory gases between blood and tissues takes place in

- (a) veins
- (b) arteries
- (c) heart
- (d) capillaries

6. Name the functional units of the major excretory organ of humans.

- (a) Kidneys
- (b) Nephrons
- (c) Urethra
- (d) Urinary bladder

7. Which of the following is a part of sexual reproduction?

- (i) Flower
- (ii) Seed
- (iii) Fruit
- (iv) Branch

Choose the correct answer from below

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

8. The fusion of male and female gametes is called

- (a) ovulation
- (b) population
- (c) pollination
- (d) fertilisation

9. The vegetative reproduction where scion and stock are used is called

- (a) budding
- (b) grafting
- (c) cutting
- (d) layering

10. Which among the following do not reproduce by vegetative reproduction?

- (a) Wheat
- (b) Sugarcane
- (c) Rose
- (d) Jasmine

11. Which of the following statement is correct?

- (a) Every object moves with a constant speed.
- (b) Distances between two cities are measured in kilometre.
- (c) The time period of a given pendulum is not constant.
- (d) The speed of a train is expressed in m/h.

12. To make a battery

- (a) positive terminal of one cell is connected to the negative terminal of another cell.
- (b) positive terminal of one cell is connected to the positive terminal of another cell.
- (c) negative terminal of one cell is connected to the negative terminal of another cell.
- (d) terminals are not connected.

13. Choose the statement which is not correct regarding an electric fuse.

- (a) Fuses are inserted in electric circuits of all the buildings.
- (b) There is a maximum limit of the current which can safely flow through the electric circuits.
- (c) There is a minimum limit of the current which can safely flow through the electric circuits.
- (d) If a proper fuse is inserted in a circuit, it will blow off if current exceeds the safe limit.

14. Where can the key or switch be placed in an electric circuit?

- (a) Left side of the battery.
- (b) Right side of the battery.
- (c) Can be placed anywhere in the circuit.
- (d) Near the positive terminal of the bulb.

15. The rear view mirror of a car is a plane mirror. A driver is reversing his car at a speed of 4 m/s. The driver sees in his rear view mirror the image of a truck parked behind his car. The speed at which the image of the truck appears to approach the driver will be

- (a) 1 m/s
- (b) 2 m/s
- (c) 4 m/s
- (d) 8 m/s

16. A man is observing his image in a plane mirror. The distance between the mirror and his image is 4 m. If he moves 1 m towards the mirror, then the distance between the man and his image will be

- (a) 3 m
- (b) 5 m
- (c) 6 m
- (d) 8 m

17. A virtual image larger than the object can be produced by a

- (a) concave lens
- (b) concave mirror
- (c) convex mirror
- (d) plane mirror

18. Water shortage does not occur due which one of the following factor?

- (a) Rapid growth of industries
- (b) Increasing population
- (c) Heavy rainfall
- (d) Mismanagement of water resources

19. Choose the correct option. The total water

- (a) in the lakes and rivers of the world remains constant.
- (b) under the ground remains constant.
- (c) in the seas and oceans of the world remains constant.
- (d) of the world remains constant.

20. Which of the following is not a forest product?

- (a) Gum
- (b) Plywood
- (c) Sealing wax
- (d) Kerosene

21. Roof of the forests made up by the branches of tall trees is called

- (a) canopy
- (b) crown
- (c) understoreys
- (d) catechu

22. Arrange the following components of a food chain in a proper sequence – grass, frog, eagle, insects, snake.

- (a) Grass → frog → eagle → insects → snake.
- (b) Grass → insects → frog → snake → eagle.
- (c) Snake → grass → eagle → insects → frog.
- (d) Grass → snake → insects → frog → eagle.

23. Which one of the following is a quality of waste water?

- (a) Foul smell
- (b) Bad taste
- (c) Dirty look
- (d) All of these.

24. Which of the following is/are product(s) of wastewater treatment?

- (a) Biogas
- (b) Sludge
- (c) Both biogas and sludge
- (d) Aerator

25. Period 2005-2015 was celebrated as the international decade for action on

- (a) water for life
- (b) education for all
- (c) global warming
- (d) terrorism

SECTION B

II. Answer the following questions in one or two sentences :- (2 Marks × 6 = 12 Marks)

- 26. What are the end products of aerobic respiration?
- 27. Why do arteries have very thick and elastic walls?
- 28. What is the importance of reproduction?
- 29. A car moves with a speed of 60 km/h for 15 minutes and then with a speed of 45 km/h for the next 15 minutes. Calculate the total distance covered by the car.
- 30. State any two differences between a convex and a concave lens.
- 31. Mention any two ways to eliminate waste and pollutants at their sources.

SECTION C

III. Answer the following questions in one or two sentences :- (3 Marks × 6 = 18 Marks)

- 32. How do the plants breathe in oxygen?
- 33. Explain the process of dialysis.
- 34. How does male gamete present in pollen grain reaches female gamete present in ovule?
- 35. Differentiate between vibratory motion and circular motion.
- 36. Explain any three factors responsible for the depletion of water table.
- 37. How are the forests helpful in maintaining the balance between oxygen and carbon dioxide in the atmosphere?

SECTION D

IV. Answer the following questions in five to six sentences :- (5 Marks × 3 = 15 Marks)

- 38. Describe the mechanism of breathing in human beings with a suitable diagram.

39. Explain the functions of human heart and make a well labelled diagram of it.
40. What is meant by fertilization in plants? Explain in detail.