

*25.02.2020*  
*B.S. Sharma*

**DAV PUBLIC SCHOOLS, BHUBANESWAR**  
**ANNUAL EXAMINATION, 2019-20**  
**CLASS- VII**  
**SUBJECT-SCIENCE**

Time - 3 Hours

Max. Marks-80

**General Instructions:-**

1. All questions are compulsory.
2. There is no overall choice. However internal choice have been provided in 3 questions of 3 marks category and 3 questions of 5 marks category.
3. Q no. 1 to 8 are very short answer type (VSA) and carry 1 mark each.
4. Q no. 9 to 17 are short answer type I (SA-I) and carry 2 marks each.
5. Q no. 18 to 25 are short answer type II (SA-II) and carry 3 marks each.
6. Q no. 26 to 31 are long answer type and carry 5 marks each.
7. Draw labelled diagram wherever necessary.

1. State a term for the flower which has either male or female reproductive part. 1
2. Write down the part of the digestive system which receives secretions from other glands. 1
3. The sheared fleece contains dirt and grease. So it is cleaned by washing and by suitable machines. Name the process. 1
4. An object travels along a straight path but its speed, during its journey keeps on changing. Name the motion of that object. 1
5. The phenolphthalein indicator is added to magnesium hydroxide solution then predict the colour change in it. 1
6. Write the nature and size of the image formed by a convex mirror. 1
7. Explain periodic events with one example. 1
8. Sketch the male reproductive part of a flower with one labelling. 1

9. Write the chemical formulae of following using symbols. 2  
a. sodium phosphate      b. magnesium nitrate
10. How is light produced in electric bulbs? Explain in detail with the principle used here. 2
11. You are given a plane mirror and a convex mirror of similar size. How will you identify them without touching? 2
12. The odometer of a car records 13000 km at the start of a trip and 13600 km at the end of the trip. If the trip took 12 hours, find the average speed of the car. 2
13. Describe any two differences between sandy soil and clayey soil. 2
14. Identify any four factors responsible for soil pollution. 2
15. The tropical rain forests are home to more species of plants and animals than all other biomass combined together. Describe any two important reasons for it. 2
16. Can we survive only on raw leafy vegetables /grass? Explain. 2
17. The forest is able to function as an independent unit. Explain the given statement. 2
18. a. It is a tall evergreen tree which is used as the pulpwood in the manufacture of the paper. Name the tree. 3  
b. State two consequences of deforestation.
19. Categorise the following reactions into different types and give reason for your answer. 3  
a.  $\text{CaO} + \text{SiO}_2 \rightarrow \text{CaSiO}_3$   
b.  $\text{Cu} + 2\text{AgNO}_3 \rightarrow \text{Cu}(\text{NO}_3)_2 + 2\text{Ag}$   
c.  $\text{CaCO}_3 \rightarrow \text{CaO} + \text{CO}_2$

**OR**

Classify the following chemical reactions into different types and write corresponding balanced chemical equation.

- a. an iron nail is dropped in copper sulphate solution.  
b. breaking up of water into hydrogen and oxygen gases, on passing electric current.
20. How can the magnetic strength of an electromagnet be increased? 3

21. Draw the ray diagram for the formation of image of a point source 'S' by a plane mirror. 3

OR

- a. Draw the ray diagram for the image formed when the object is between the centre of curvature and the focus of a concave mirror.  
b. Write the nature and size of the image formed in the above case.
22. a. How is sucker pad helpful to red eyed frog? 3  
b. Mention any two climatic conditions of arid zone in Indian climate.
23. Specify the mode of nutrition shown in amoeba. Explain the process of nutrition in amoeba. 3

OR

Explain the process of digestion of food in the small intestine of human.

24. a. Differentiate between self pollination and cross pollination. (any one) 3  
b. Explain the fate of flower after fertilisation. (any two)
25. a. 'The different layers of forest have different set of plants and animals'. Analyse and give a suitable reason to explain the given statement. 3  
b. Write down the significance of two important layers found in the forest.
26. a. Discuss how basic salts are formed by neutralisation reaction. 5  
b. Write chemical equation to get calcium acetate and sodium carbonate by neutralisation reaction.  
c. Write the product of neutralisation between sodium hydroxide and sulphuric acid with chemical equation and also mention the nature of the salt produced here.

OR

- a. Discuss how acidic salts are formed by neutralisation reaction.  
b. Write chemical equation to get calcium sulphate and sodium chloride by neutralisation reaction.  
c. Write the product of neutralisation between potassium hydroxide and nitric acid with chemical equation and also mention the nature of the salt produced here.
27. a. Examine about the time period of two simple pendulums of same length and draw a conclusion about their time period. 5  
b. A simple pendulum takes 42 seconds to complete 20 oscillations. Calculate the time period of this pendulum.

- c. Draw the shape of distance time graph for
- a man standing at one place and waiting for his friend.
  - a car moving in a straight road with a constant speed.

OR

- a. Plot the distance- time graph for the motion described in the table by the moving object.

Distance covered (in m)	0	10	20	40	50
Time (in minute)	0	2	4	8	10

- b. What type of motion do you observe in the moving body from the graph?

28. a. Discuss one example of behavioural adaptation and one structural adaptation of penguins. 5
- b. Explain any three adaptations those have helped the elephant to survive in the tropical rain forests.
29. a. Name the horizon or layer of soil in which more mineral deposits and less humus are found. 5
- b. The clayey soil is used for making pots and toys. Write the suitable properties of this soil helpful in making pots.
- c. Define weathering. Write any four agents of physical weathering in soil formation.
30. a. 'The commercially important plants are often propagated by asexual means'. Describe the given statement by giving suitable reason. 5
- b. Explain any two artificial methods of vegetative propagation with an example.
- c. State two advantages of vegetative propagation.

OR

- a. Define seed dispersal.
- b. Why is dispersal of seeds important for plants?
- c. Explain any three ways of seed dispersal by giving one suitable example of each.
31. a. Make a labelled sketch of the stages in the life history of a silk moth. 5
- b. Explain the process of rearing of silk worm.

\*\*\*