



**Brilliant Public School**  
Seepat Road Bahatarai, Bilaspur (C.G.)  
Final Term Assessment, 2018-19  
Class – IX  
Subject - Science

TIME: 3:00 Hrs.  
Date: 25.02.2019

M.M. 80  
Monday

**General Instructions: -**

- The question paper comprises two sections A and B. you have to attempt both the sections.
- All questions are compulsory.
- All questions of Section A and B are to be attempted separately.
- There is an internal choice in three questions of 3 marks each and two questions of 5 marks each and one questions (for assessing the practical skills) of 2 marks.
- Question numbers 1 and 2 in Section A are one-mark question. They are to be answered in one word or in one sentence.
- Question numbers 3 to 5 in Section A are two marks questions. These are to be answered in 30 words each.
- Question numbers 6 to 15 in section A are three marks questions. These are to be answered in about 50 words each.
- Question numbers 16 to 21 in Section A are 5 marks questions. These are to be answered in 70 words each.
- Question numbers 22 to 27 in Section B are based on practical skills. Each question is a two marks question. These are to be answered in brief.

**Section - A**

- Name any two common vectors which help in the transmission of diseases. 1
- Name the pollutants present in acid rain. 1
- Give one difference between canal rays and cathode rays. 2
- A body P is at rest and body Q is moving with a constant velocity. Draw (a) distance time graphs of P and Q, (b) velocity time graphs of P and Q. 2
- Give one process by which – 2
  - Oxygen moves from abiotic environment to biotic environment.
  - Oxygen moves from biotic environment to abiotic environment.
- Carbon dioxide is necessary for plants. Why do we consider it as a pollutant? 3
- Why do some children fall ill more frequently than others living in the same locality? 3
- Give three differences between angiospermae and gymnospermae. 3
- Give three distinguishing characters of phylum chordate. 3
- What is the valency of : 3
  - Fe in  $\text{Fe}_2\text{O}_3$
  - Ca in  $\text{CaSO}_4$
  - Al in  $\text{Al}(\text{OH})_3$
- a) Why do substances undergo changes in physical state? 3  
b) Why do solids generally lack property of diffusion?
- Write short notes on: 3
  - Discovery of neutron.
  - Thompson's model of atom.

13. A train travels the first 15 Km at a uniform speed of 30 km/h. The next 75 km at a uniform speed of 50 km/h and the last 10 km at a uniform speed of 20 km/h. Calculate the average speed for the entire train journey

OR

(a) Define uniform motion with example.

(b) A bus starting from rest moves with a uniform acceleration of  $0.2 \text{ ms}^{-2}$ , for 5 minutes. Calculate the speed acquired and the distance moved. 3

14. (a) State Newton's second law to motion. Write two applications of it.

(b) For how long should a force of 100N act on a body of 20Kg so that it acquires a velocity of 100m/s? 3

15. (a) State Archimedes' principle and write its two applications.

(b) A body of  $50\text{cm}^3$  is completely immersed in water. Find the force of buoyancy on it.

OR

(a) Write two difference between weight and mass of a body

(b) An object has mass of 36 kg on earth. What will be its (i) mass and (ii) weight on the moon? ( $g=10\text{m/s}^2$ ) 3

16. i) Draw a neat diagram of animal cell and label the following organelles: 5

a) Master of the cell

b) Power house of the cell

c) Kitchen of the cell

ii) Give two salient features of kingdom fungi.

OR

What is blood made up of? Describe its various components.

17. Why do plants fix nitrogen? Describe nitrogen cycle. 5

OR

Give one word for the following:

a) Farming without the use of chemicals as fertilizers, herbicides and pesticides.

b) Growing of wheat and soya bean on the same field.

c) Growing different crops on a piece of land in pre-planned succession.

d) Xanthium and Parthenium are called?

e) Causal organisms of any disease.

18. Calculate the molar mass of: 5

a) Ethyne  $\text{C}_2\text{H}_2$

b) Phosphorus molecule  $\text{P}_4$

c) Hydrochloric acid  $\text{HCl}$

d) Sulphur molecule  $\text{S}_8$

e) Nitric acid  $\text{HNO}_3$

OR

- a) Convert into moles-
  - i. 12 g of oxygen gas
  - ii. 22 g of carbon dioxide
- b) What is the mass of -
  - i. 1 mole of nitrogen atom
  - ii. 4 moles of aluminum atom.
  - iii. 10 moles of aluminum sulphite  $\text{Na}_2\text{SO}_3$

19. Answer the following:

- a) an example of mixture of number of gases.
- b) dispersed phase and dispersion medium of any one of the colloidal solutions.
- c) a shiny liquid used in thermometers.
- d) term used for tinkling sound of metal.
- e) a tube-like apparatus packed with glass beads.

OR

Explain how drinking water is supplied from water works. Draw the labeled diagram of it.

- 20. a) Define 1 Watt.
- b) Name two units of power bigger than watt.
- c) A man weighing 500N carried a load of 100N up a flight of stairs 5m high in 5s. What is the power?

OR

- a) Define 1 joule.
- b) Name the quantity whose unit is kilowatt –hour.
- c) Six electric fans of 120 Watt each are used for 5 hours. Calculate the electrical energy consumed in kilowatt-hour.

21. a) State the laws of reflection of sound.

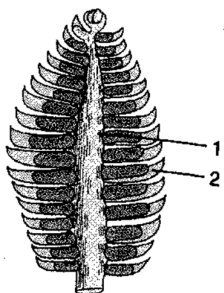
- b) A body vibrating with a time-period of  $1/256$  sec produces a sound wave which travels in air with a velocity of 350m/s. Calculate the wavelength.

OR

- a) If you want to hear a train approaching from far away, why is it more convenient to put the ear to the track?
- b) Name two devices which work on the reflection of sound.
- c) The echo of a sound is heard after 5 seconds. If the speed of sound in air be 342m/s. Calculate the distance of the reflecting surface.

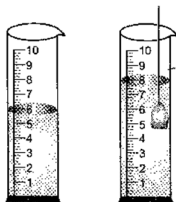
Section - B

22. Give two identifying features of Kingdom Arthropoda. 2
23. a) Identify the given figure 2



b) Label the parts numbered 1 and 2.

24. What are the two reactants used in the lab for the verification of law of conservation of mass and also write the colour of precipitate formed. 2
25. Write the two observations obtained when magnesium ribbon is burnt in air in laboratory. 2
26. What happens to a person travelling in a bus when the bus takes a sharp turn? Give reason. 2
27. A measuring cylinder (calibrated in  $\text{cm}^3$ ), shown in given figure, is used to measure the level of water before and after immersing a solid in it. What is the volume of the given solid? 2



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