



Class 9 Science Sample Question Paper 2017-18

Time allowed: 03 Hours

Science Class – IX

Maximum Marks: 80

Instruction:

- (i) Question numbers 1 and 2 in Section-A are one mark question. They are to be answered in one word or in one sentence.
- (ii) Question numbers 3 to 5 in Section- A are two marks questions. These are to be answered in 30 words each.
- (iii) Question numbers 6 to 15 in Section-A are three marks questions. These are to be answered in about 50 words each.
- (iv) Question numbers 16 to 21 in Section-A are 5 marks questions. These are to be answered in 70 words each.
- (v) 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
- (vi) There is an internal choice in two questions of three marks each and one question of five marks.

Section-A

Question numbers 1 and 2 in Section-A are one mark question

- 1. State the chemical nature of the thickening of the walls of sclerenchyma tissue.
- 2. Distinguish between intervarietal and interspecific hybridisation of crop plants

Question numbers 3 to 5 in Section- A are two marks questions

- 3. How is heating of sugar and heating of ammonium chloride different from each other ? Explain your answer.
- 4. Name and define the mechanism responsible for release of water on adding salt to the vegetables.
- 5. An observer standing at a seacoast observes 60 waves reaching the coast per minute. If the wavelength of a wave is 10 m., find the velocity of the wave.

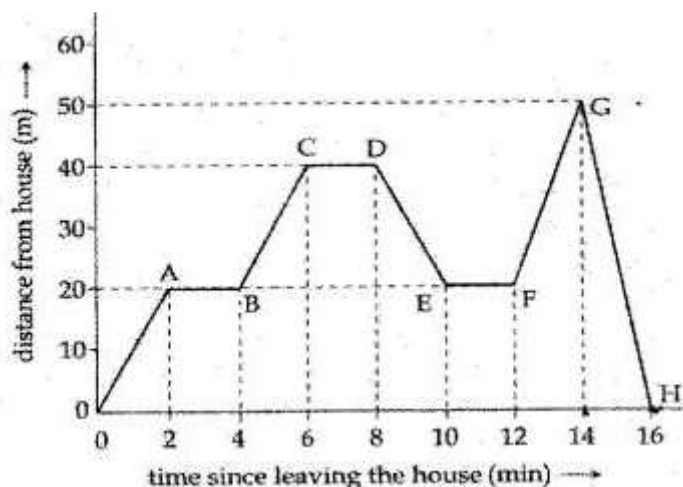
Question numbers 6 to 15 in Section-A are three marks questions

- 6. Rahul was a good player, but his sports teacher observed that he takes drugs. Rahul denied this. Then the sports teacher asked him to go for blood test. Answer the following questions. (a) Name the technique that can be used to detect the presence of drugs in blood. (b) Write any other application of this technique. (c) Which values in Rahul's personality are reflected in his behaviour? How will these values affect his reputation and future prospectus in sports and as an individual?
- 7. Identify the type of tissues in the following:-
 - (a) Eye-lid (b) Inner lining of the intestine (c) Lining of the kidney tubule
- 8. Answer these questions:



18. The following graph describes the motion a girl going to meet her friend who stays 50 m from her house.

- (a) How much time she takes to reach her friend's house?
- (b) What is the distance travelled by the girl during the time interval 0 to 12 min?
- (c) During which time interval she is moving towards her house?
- (d) For how many minutes she was at rest, during the entire journey?
- (e) Calculate the speed by which she returned home.



OR,

(a) Draw a velocity-time graph for an object in uniform motion. Show that the slope of the velocity-time graph gives the acceleration of the object.

(b) An aeroplane starts from rest with an acceleration of 3 m/s^2 and takes a run for 35 s before taking off. What is the minimum length of the runway and with what velocity the plane took off?

19. (i) Who introduced the system of scientific naming of organisms? What are the conventions followed while writing scientific names?

(ii) Name the phylum to which the following organisms belong:

- (a) Ascaris (b) Leech (c) Sea urchin (d) Liver fluke (e) Sycon

20. (i) Define 1 watt of power. (ii) Express 1 kilowatt in terms of joule per second.

(iii) Five bulbs each rated 100W are used for 4 hours, a heater rated 1500W is used for 2 hours and an electric iron rated 1000 W is used for 5 hours. Calculate the total energy consumed by them in terms of the commercial unit of energy. Convert the energy into Joules.

21. (i) Derive an expression for kinetic energy of an object of mass m moving with a uniform velocity v .

(ii) What happens to the kinetic energy of a body if its velocity is halved?

(iii) A force acting on a 10 kg mass changes its velocity from 54km/h to 90km/h. Calculate the work done by the force.





**d Cardinal
Point**

One Stop Edu Solution

Section-B

Question numbers 22 to 27 in Section- B are based on practical skills. Each question is a two marks question

22. State the method by which we can prepare colloid of starch.

23. While doing an experiment to determine the boiling point of water, a student heated water in a beaker and observed that when water starts boiling the temperature remains constant. State reason. Where does the heat energy go?

OR, In an experiment to determine the boiling point of water, mention two important precautions to be taken.

24. Classify the following elements as macro or micro nutrients in plants. (i) Nitrogen (ii) Zinc (iii) Copper (iv) Potassium

25. An object weighing 10 N in air, weighs 8 N in a liquid A and 9 N in liquid B. In which liquid the buoyant force experienced by the liquid is more and why?

26. While conducting the experiment to measure the weight of water displaced by the body precaution should be taken to immerse the solid in water without touching the walls or bottom of the container. Why ?

27. (a) How are bird modified to reduce weight for flying? (b) Which part of body is modified for flight?



**d Cardinal
Point**

One Stop Edu Solution