

2021
CLASS – IX (Phase-1)
SCIENCE

Total marks : 40

Time : 1½ hours

General instructions:

- i) Approximately 10 minutes is allotted to read the question paper and revise the answers.
- ii) The question paper consists of 16 questions in 5 categories.
- iii) Internal choice has been provided in some questions.
- iv) Alternate question for the visually impaired students are provided in some questions.
Only the visually impaired students have to attempt such alternate questions.
- v) Marks allocated to every question are indicated against it.

N.B: Check to ensure that all pages of the question paper are complete as indicated on the top left side.

1. Choose the correct answer from the given alternatives:

- | | |
|---|-------------------------|
| (a) The conversion of gas into liquid state is called | 1 |
| (i) solidification | (ii) condensation |
| (iii) sublimation | (iv) vaporization |
| (b) The unit accepted for taking mass of atom and molecule is | 1 |
| (i) gram | (ii) milligram |
| (iii) molecular mass unit | (iv) atomic mass unit |
| (c) Which of the following plant group bear naked seeds? | 1 |
| (i) Bryophyta | (ii) Pteridophyta |
| (iii) Gymnosperms | (iv) Angiosperms |
| (d) The S.I unit of acceleration is | 1 |
| (i) m/s | (ii) m/s ² |
| (iii) m/hr | (iv) m |
| (e) Which of the following do not possess kinetic energy? | 1 |
| (i) Blowing wind | (ii) A speeding car |
| (iii) Flowing water | (iv) An athlete at rest |

Answer the following questions in one word or one sentence:

2. What is Avogadro Constant? **1**
3. Write the full form of DNA. **1**
4. Define velocity. **1**
5. What is the kinetic energy of an object? **1**

6. Mention one preventive measure for water borne disease. 1

Answer the following questions in about 20-30 words:

7. Why is the cell called the structural and functional unit of life? 2
8. What is binomial nomenclature? Who introduced it? 2
9. A porter lifts a luggage of 15kg from the ground and puts it on his head 1.5m above the ground. Calculate the work done by him on the luggage. 2

Alternate question for the visually impaired students:

What is potential energy? Give two examples. (2)

10. Name two diseases caused by bacteria. 2

Answer the following questions in about 40-60 words:

11. Mention the three characteristics of particles of matter. 3
12. Write the chemical formulae of the following: 3
(i) calcium oxide (ii) aluminium chloride (iii) magnesium hydroxide

Alternate question for the visually impaired students:

What are polyatomic ions? Give two examples. (3)

13. a. List any three characteristics of Angiosperms. 3
Or
b. List any three characteristics of Arthropoda.

14. a. A train starting from rest attains a velocity of 72kmh^{-1} in 5minutes. Assuming that the acceleration is uniform, find 3
(i) the acceleration
(ii) the distance travelled by the train for attaining this velocity.

Or

- b. A car accelerates uniformly from 18kmh^{-1} to 36kmh^{-1} in 5seconds. Calculate 3
(i) the acceleration
(ii) the distance covered by the car in that time.

Alternate question for the visually impaired students:

What is uniform circular motion? Give two examples. (3)

Answer the following questions in about 70-100 words:

15. Draw the structure of an animal cell and label any six organelles. **2+3=5**

Alternate question for the visually impaired students:

Name any six organelles of an animal cell. Which organelles are known as the 'powerhouse' and 'suicide bags' of the cell? (3+2=5)

16. **a.** What are communicable diseases? Explain two modes of spread of communicable diseases and their preventive measures. **1+2+2=5**

Or

b. What is a disease? Explain two main causes of diseases. (1+4=5)
