**Science (Class IX)**

**Practice Paper – 03**

Instructions:

1. This paper has 34 questions, carrying 1 mark each
2. All questions are compulsory
3. Answer the questions as per the given instructions

**Multiple Choice Questions**

1. Identify the correct statement about mixture.
2. The substances are present in definite ratio
3. The mixture cannot be separated by physical methods
4. The constituents lose their properties
5. Chemical reaction does not take place during its formation
6. Process in which cells engulfs food and other material from its external environment is known as
7. Diffusion
8. Endocytosis
9. Osmosis
10. Plasmolysis
11. Which of the following is the example of a uniform acceleration?
12. The motion of a free falling body
13. The motion of a ball rolling down on an inclined plane
14. Both (a) & (b)
15. None of the above
16. Three features which are found in almost every cell are
17. Plasma membrane, nucleus and cytoplasm
18. Cell wall, endoplasmic reticulum and nucleus
19. Cell wall, cytoplasm and Golgi apparatus
20. Plasma membrane, nucleus and plastids
21. The concentration of a solution depends
22. Nature of solute
23. Amount of solute
24. Pressure
25. All of these
26. The functions of plasma membrane are
27. It provides definite shape to the cell
28. It is selectively permeable
29. It provides mechanical support for the protection of internal structure of a cell
30. All of the above
31. From the following select the statement that is true.
32. All cells have a cell wall
33. The Golgi apparatus is found only in animal cell
34. Chloroplasts are found only in plant cells, but not in animal cells
35. Chloroplast is called powerhouse of the cell
36. The separation of two components having different weights can be done by
37. Sublimation
38. Filtration
39. Centrifugation
40. Chromatography
41. The living simple tissue that provides support to the growing parts of a plant is
42. Sclerenchyma
43. Collenchyma
44. Parenchyma
45. Fibres
46. A body moves in a circular path of radius 10 cm. if it completes two revolutions along the circular path, then displacement of a body is
47. Zero
48. 40 cm
49. 20 cm
50. None of these
51. The tissue whose cells are thin-walled and living, more or less isodiametric and have intercellular spaces, Is known as
52. Collenchyma
53. Sclerenchyma
54. Parenchyma
55. Chlorenchyma
56. A car accelerates on horizontal road due to force exerted by
57. The driver of the car
58. The engine of the car
59. The earth
60. The road
61. Which of the following maintains turgidity of the cell?
62. Lysosomes
63. Plastids
64. Vacuoles
65. Cell wall
66. Girth of stem increases due to
67. Apical meristem
68. Lateral meristem
69. Intercalary meristem
70. Vertical meristem
71. Lining of kidney tubules is made up of
72. Stratified columnar epithelium
73. Simple cuboidal epithelium
74. Stratified squamous epithelium
75. Simple columnar epithelium
76. Which one of the following terms describes ‘a nucleus without nuclear membrane’?
77. Nucleolus
78. Primitive nucleus
79. Nucleoid
80. All of these
81. Area number v-t graph represents a physical quantity which has the unit
82. m2
83. m
84. m3
85. ms-1
86. the size of prokaryotic cell is
87. 1-10
88. 20-30
89. 5-10
90. 50-70

**Assertion- Reasoning MCQs**

For given questions two statements are given, one labelled Assertion (A) and the other labelled Reason (R). Select the correct answer to these questions from the codes (a), (b), (c) and (d) as given below.

1. Both assertion and reason are true and reason is the correct explanation of assertion
2. Both assertion and reason are true but reason is not the correct explanation of assertion
3. Assertion is true but reason is false
4. Assertion is false but reason is true
5. Assertion- If the dispersed phase is liquid and dispersion medium is solid, then colloid is known as gel.

Reason- Whipped cream is an example of gel.

1. Assertion- Distillation involves two processes which are vaporisation and condensation.

Reason- Distillation method is used to separate two miscible liquids having different boiling points.

1. Assertion- Acceleration of a body can be calculated from velocity-time graph.

Reason- Area of velocity-time graph gives displacement of a body.

1. Assertion- Newton’s third law of motion can be applied to a system where bodies do not actually touch each other.

Reason- Action and reaction forces act on only first body.

1. Assertion- A body is momentarily at rest but still some force is acting on it at that time.

Reason- When a force acts on a body, it may not have some acceleration.

1. Assertion- Rudolf Virchow modified the hypothesis of cell theory given by Schleiden and Schwann.

Reason- Cell theory says that some cells arise from pre-existing cells.

1. Assertion- Ribosomes are non-membrane bound organelles found in prokaryotic cells only.

Reason- these are present only in cytoplasm.

1. Assertion- Prokaryotic cells are larger than eukaryotic cells.

Reason- Prokaryotic cells do not have cytoplasmic cell organelle.

**Case Based MCQs**

Depending upon the nature of the components that form a mixture, we have two types of mixtures. A mixture that does not have uniform composition, i.e.., has visible boundaries of separation between its constituents is called heterogeneous mixture. For example, a mixture of oil in water, sand and salt, sugar and salt, etc.

A mixture in which the constituents are uniformly distributed throughout without any clear boundary of separation is called homogeneous mixture. For example, air, alloy, soda water, two solutions or simply solutions, etc.

Mark the beakers as A, B, C and D. In beakers A and B, take 50 ml of water. Now, add one spatula copper sulphate powder in beaker A and one spatula copper sulphate powder in beaker B, and observe the changes.

Now, in beaker C and D, take equal quantity of common salt (sodium chloride). In beaker C, add iron filings and in beaker D, add sulphur powder. Mix them with the help of glass rod and observe the changes.

1. What name is given to a mixture having uniform composition and no distinct parts?
2. A true solution
3. Heterogeneous mixture
4. Homogeneous mixture
5. Colloidal solution
6. In beakers A and B, the composition of mixture is\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.
7. Same
8. Increases
9. Decreases
10. Slightly changes
11. In which beaker(s), the obtained mixture has non-uniform composition?
12. C
13. D
14. Both C and D
15. Both A and B
16. On mixing iron filings with sulphur in a beaker, what type of mixture is obtained?
17. Homogeneous
18. Heterogeneous
19. Mixture with uniform composition
20. Colloidal

 OR

Which of the following is an example of homogeneous mixture?

1. Oil in water
2. Soup
3. Sugar in water
4. Copper sulphate in oil

**Case Based MCQs**

The tissue that receives stimulus and transmits it from one part of the tissue to other are called nervous tissues. The cells that constitute nervous tissue are called nerve cells or neurons. These are highly specialised for receiving stimulus and then transmitting it very rapidly from one place to another within the body itself. Brain, spinal cord and nerves are composed of nervous tissue.

An individual nerve cell or a neuron may be up to a metre long and is composed of three major parts:

1. **cell wall** consists of cytoplasm, nucleus and cell membrane.
2. **Axon** is a single long conducting fibre extending from neuron. It transmits impulse away from the cell body.
3. **Dendrites** are short branched fibres of neuron, which receive nerve impulses.
4. Nerve fibres bound together to form
5. Axon
6. Nerves
7. Blood
8. Nucleus dendrite
9. Nerve fibres together makes up a nerve. Nerve fibre are bound together by
10. Muscular tissue
11. Connective tissue
12. Ligaments
13. Epithelial tissue
14. Select the incorrect pair.
15. Axon- long and conducting fibre
16. Cyton- cytoplasm, nucleus and cell membrane
17. Dendrites- transmission of impulse
18. Nervous tissue- brain, nerves and spinal cords
19. Which of the following statement is correct about nervous tissue?
20. It is specialised tissue to connect various organs of the body
21. It helps maintain continuity of our body
22. It is simple and protective
23. It is the main tissue of our nervous system as it regulates body functions