Sample Paper – 2012
Class – IX
Subject – Science

Maximum marks: 100   Total time: 3Hr

_____

General Instructions:

(i) The question paper comprises of three sections, A, B and C you are to attempt three sections.
(ii) All questions are compulsory.
(iii)There is no overall choice. However, internal choice has been provided in all the two questions for the numerical. Only one option in such question is to be attempted.
(iv)All questions of section A, B and C are to be attempted separately.
(v) Question numbers 1 to 19 in section A, are to be answered in **one word** or **one sentence**.
(vi) Question numbers 20 to 25 and each part of 26 are two mark questions, to be answered in about **30 words**.
(vii) Question numbers 27 to 34 are three mark questions, to be answered in about **50 words**.
(viii) Question numbers 35 to 38 in section C are long question. These are to be answered in about **70 words**.

SECTION–A

1. If a body starts from rest, what can be said about the acceleration of the the body?   (01)

 (a) Positive accelerated (b) negatively accelerated (c) uniform accelerated (d) none of these

2. What does the slope position time graph give?   (01)

 (a) Speed (b) acceleration (c) uniform speed   (d) both[a] and [c] depending upon the time of graph

3. When a body moves uniformly along the circle, then   (01)

(a) Its velocity changes but speed remains the same

(b) Its speed changes but velocity remains the same

(c) Both speed and velocity changes

(d) Both speed and velocity remains same

4. Newton's first law of motion is also called   (01)

(a)Law of inertia (b) law of momentum (c) law of action and reaction (d) none of these

5. If the friction acting on the body is more the body will move: (01)

(a)More speedily (b) less speedily (c) same speed (d) none of these

6. The SI unit of weight is: (01)

(a)Newton (b) Newton-m (c) Newton /sec (d) Newton-m/sec

7. What is the SI unit of momentum? (01)

(a)Kg-m-sec   (b) m –sec/kg (c) kg-m/sec (d) kg/m-sec

8. What is the SI unit of force? (01)

 (a)Kg-m/sec^2 (b) kg-m /sec (c) kg-m^2 /sec^2 (d) kg-m^2 sec^2

9. The people in the bus are pushed backwards when the bus starts suddenly due to: (01)

(a)Inertia due to rest (b) Inertia due to motion (c) Inertia due to direction (d) Inertia

10. If the initial velocity is zero then the force acting is: (01)

 (a)Retarding (b) Acceleration   (c) both (d) none of these

11. Unit of relative density is: (01)

 (a) kg/m^3 (b) unit less (c) depends (d) on the density of substance:

12. The weight of an object is: (01)

(a) Greater on earth and lesser on moon (b) lesser on earth and greater on moon

(c) Equal on both earth and moon (d) none of these

13. The relation between the weight of an objection the moon (W$_M$) and on the earth (We) (01)

 (a)W$_M$ =1/6   (b) W$_M$= We   (c) We = 1/6W$_M$ (d) W$_M$ =6 We

14. If the distance between object increases, remaining same then the gravitational force between the object will: (01)

(a)Increase   (b) decrease   (c) remain same   (d) none of these

15. Name the following: ½*4= (2)

(i) Tissues that connects muscles to bones in human ----------------.

(ii) Tissues that transport food in plants --------------------.

(iii) Tissues present in the brain-------------------------.

(iv) System of giving scientific names to plants and animals-------------------.

16. Give two examples of following: ½*6= (03)

(i)Gymnosperms ----------------   ---------------------------

(ii) Angiosperms ------------------   --------------------------

(iii) Bryophyta   --------------------   --------------------------

17. Which of the following are matter: ¼ *4= (01)

(i) Thought   (ii) cold   (iii) cold drink   (iv) air

18. Convert the following to Celsius scale: 1*3= (03)

(i) 300K   (ii) 573K   (iii) 273K

19. What is the physical state of water at: ½+1+½= (02)

(i) 25°C   (ii) 0°C   (iii) 100°C

SECTION–B

20. State Archimedes's principle?   (02)

21. Define density and relative density.   (02)

OR

A girl of mass 40 kg jumps with a horizontal velocity of 5 m/s on to a stationary cart with frictionless wheels. The mass of cart is 3 kg, what is her velocity as the cart start moving?

22. If the mass of one object is doubled and mass of other remains the same and if distance between them is halved then how does the gravitation force change?   (02)

23. A 0.24g sample of compound of oxygen and boron was found by analysis to contain 0.096g of boron and 0.144g of oxygen. Calculate the percentage composition of the compound by weight. (02)

24. When 3.0 g of carbon is burnt in 8.0 g of oxygen, 11.0 g of carbon dioxide is produced. What mass of carbon dioxide will be found when 3.0 g of carbon is burnt in 50.0 g of oxygen?   (02)

25. What type of clothes should we wear in summer?   (02)

26. Answer the following questions: 2*11= (22)

(i) What are the major decisions in the kingdom of plants?

(ii) Name the region in which Parenchyma tissue is present.

(iii) How many types of elements together make up the xylem?

(iv) How does amoeba obtain its food?

(v) Which organelle is known as the power house of the cell?

(vi) Why are Lysosomes known as suicide bags?

(vii) Write two differences between plant cell and animal cell.

(viii) Write two characters of kingdom fungi.

(ix) Write two application of crystallization.

(x) What do you mean by chromatography?

(xi) Write the help of well labeled diagram show evaporation.

27. What is the magnitude of gravitational force exerted by a 15 kg mass on a25 kg mass separated by a distance of 25 Cm? What is the acceleration produced on each mass? (03)

28. A stone is dropped from a height of 100 meters on earth. At the same time, another stone is thrown vertically upwards from aground with a velocity of 50 m/s. At what height from the ground will the stone meat? (03)

29. What is acceleration due to gravity and calculate its value on earth? (03)

30. Give the name of elements present in the following compounds: (03)

(i) Quick lime   (ii) potassium sulphate   (iii) baking powder

31. What is the law of conservation of mass? (03)

32. What is the law of constant proportion? (03)

33. Write three characters of kingdom Monera. (03)

33. Write three characters of kingdom Amphibia. (03)

SECTION–C

34. Calculate the molar mass of following substances: (04)

   (i) C_2H_2.
   (ii) HCl

36. In the tabular form show the classification of organisms. (04)

37. Draw a well labeled diagram of labeo whita. (04)

38. The Olympic high jump record is 2.45 meters held by Cuba when acceleration due to gravity on earth was $-1m/s^2$. Calculate the height to which the jumper would have jumped? (05)

OR

   (a) What happens to a person travelling in a bus when the bus takes a sharp turn? Give reason.
   (b) A cricketer moves his hand backwards on catching a fast moving ball. Why?
   (c) A bullet of mass 0.02 kg is fired by a gun of mass 100 kg. If the speed of bullet is 80 m/s. calculate the recoil speed of the gun?