संकलित परीक्षा –I, 2016-17   **GLG6YW1**

SUMMATIVE ASSESSMENT – I, 2016-17

St. Paul samastipur   विज्ञान / SCIENCE

कक्षा – IX / Class – IX

निर्धारित समय : 3 घण्टे   अधिकतम अंक : 90

Time Allowed : 3 hours   **Maximum Marks : 90**

SECTION - A

1. Name the phenomenon that results in the swelling of human red blood cells when they are placed in hypotonic salt / sugar solution.

2. State the type of motion of a freely falling body.

3. While getting down a moving bus, why should a person run in the same direction as that of the bus ?

4 . How is heating of sugar and heating of ammonium chloride different from each other ? Explain your answer.

5.How is striated squamous epithelial tissue different from squamous epithelial tissue ?

6 . It is said that the mass of an object remains constant at all places while weight may change. Why?

7.A substance `A' has fixed shape and volume. It is incompressible. Predict the state of the substance. Enlist four properties of this state of matter.

9 (a) Show by an activity that homogeneous mixtures can have variable compositions. (b) How is it different from heterogeneous mixtures ?

10. Classify the organisms on the basis of the number of cells. Give two examples each.

11. What happens to the cells formed by meristematic tissues? Differentiate between simple and complex permanent tissue.

12.A body of mass 50 kg reaches the velocity of 10 m/s in 5 s from rest. Calculate the required force applied on the body.

13 . A particle weighs 120 N on the surface of the earth. At what height above the earth's surface will its weight be 30 N ? Radius of earth = 6,400 km.

14 .From a station 'X' a train starts from rest and attains a speed of 54 km/h in 10 s. Then by applying brakes negative acceleration of 2.5 ms-2 is produced and it stops at station 'Y' in 6 s. Find the distance between station 'X' and 'Y'.

15 .A boy of mass 50 kg running at 5 m/s jumps on to a 20 kg trolley travelling in the same direction at 1.5 m/s. Find their common velocity.

16 . State the universal law of gravitation. Mention four phenomena which can be explained by this law.

17 . Ravi was studying in the city. In holidays he went to his village. There his father took him to his fields. He saw that the field crops were infested by insects, pests, diseases and weeds. His father was very

worried. Ravi told his father what needs to be done to protect the crop from these. (i) How do weeds affect the crop ? (ii) Name any two weeds. (iii) List any two aspects of Ravi's behaviour that are worth appreciation here.

18 . (a) Write the scientific names of Indian bee and Italian bee variety commonly used for commercial honey production. (b) In addition to honey, name one more product obtained in bee keeping.

19 . Describe any three properties of colloids. Categorize the following examples of colloids into different categories of colloids: jelly, fog, milk, shaving cream.

20 . (a) Evaporation causes cooling. Comment upon this statement. (b) Give two examples from daily life which illustrate that evaporation causes cooling.

21 .Identify the following muscular tissues and draw their diagrams : (a) This tissue is mostly attached to bones and helps in body movement. (b) This tissue is found in the iris of the eye and bronchi of the lungs. (c) This tissue contracts and relaxes rapidly rhythmically throughout life.

22. A bike moves with a constant velocity of 5 m/s for 10 s and then its velocity increases to 10 m/s in the next 5 s. Thereafter its velocity decreases at a uniform rate until it comes to rest after 10 s. Express this entire run of the bike on the velocity-time graph. From the graph :

(a) Identify the time interval when the bike was accelerating. (b) Find the distance travelled in the last 10 s.

23. Write three points of difference between mass and weight? How much would a 70 kg astronaut weigh on the moon? What would be his mass on the earth and on the moon?

24. Define 'Hybridisation'. Explain the three types of cross-breeding practiced during hybridisation? What do you mean by genetically modified crops?

SECTION - B

25 .Some students were doing experiments in laboratory, the teacher instructed that the chemicals should be used in specific quantity. This is because:

(a) To avoid wastage   (b) To get the correct result

(c) To give chance to every student   (d) To avoid delay

26 . Out of the following steps given below the right step to test the presence of starch in the given food material : (a) Took the food material in a test tube, and added Iodine powder on it.

(b) Took the food material in a test tube crushed it and then added Iodine powder.

(c) Took the food material in a test tube, crushed and added Iodine solution

(d) Took the food material in a test tube, diluted it with water, then added dil. HCl.

27. Take a mixture of iron filings and sulphur powder in one watch glass. Take powdered black mass obtained on strong heating of iron filings and sulphur powder in another watch glass and observe both. You will find that.

(a) Mixture of iron filings and sulphur powder forms a homogeneous mixture while black powder of iron sulphide is heterogeneous.

(b) Mixture of iron and sulphur is heterogeneous while iron sulphide is homogeneous.

(c) Both are homogeneous   (d) Both are heterogeneous

28. When iron filings and sulphur powder are mixed the components of the mixture retain their properties and can be separated by physical methods. This indicates that :

(a) It is a chemical change (b) It is a irreversible change (c) It is a physical change (d) It is a permanent change

29 . Take 2.0 g of barium chloride in tube A and 2.0 g sodium sulphate in tube B. Add 20 mL water in both test tubes, The prepared solutions could be:

(a) There is transparent solution in tube A and opaque solution in tube B.

(b) there is homogeneous solution in tube A and heterogeneous solution in tube B.

(c) homogeneous solutions in both-tube A and tube B.

(d) A and B both have heterogeneous solution.

30 . What is the name and composition of the outermost layer of a human cheek cell ?

(a) Cell membrane, cellulose   (b) Cell membrane, phospholipids

(c) Cell wall, cellulose   (d) Cell wall, phospholipids

31 . The tissue which conducts impulses in animals is:

(a) Epithelial tissue (b) connective tissue (c) muscular tissue (d) nervous tissue

32. Rakhi took the mixture of sand, ammonium chloride and common salt in a china dish. She covered the china dish with an inverted glass funnel and plugged in a little cotton at the opening of the stem of the funnel. On heating the mixture white fumes evolved. These fumes are of :

(a) sand   (b) ammonium chloride   (c) common salt   (d) carbon dioxide

33. The work done by the frictional force is always:

(a) Positive   (b) negative

(c) neither positive nor negatives   (d) either positive or negative

34 . If you take gum and make an aqueous solution, what kind of solution is likely to be formed? What would be the observation on passing a beam of light through the solution?

35. For experimentally determining the melting point of ice in the laboratory list two precautions which must be necessarily observed.

36. List the necessary steps in conducting the experiment of determining the percentage of water absorbed by the raisins?