

SUMMETIVE ASSESSMENT – 1 2016 – 17 [5319PQP] SCIENCE Class – IX

1. Pick the odd one out from: Golgi Apparatus, Endoplasmic Reticulum (E.R), Cytoplasm, Lysosomes. Give suitable reason for your selection.
2. Give an example of a uniform circular motion.
3. Name the physical quantity which corresponds to the rate of change of momentum.
4. Inter-conversion of states of matter occurs at constant temperatures. Explain.
5. Name the tissue present in the hard covering of seeds. Which chemical is responsible for making this tissue hard ?
6. "All the object in the universe attract each other" (a) What is this force of attraction called as ? (b) Name any two factors on which this force of attraction depends.
7. (a) A sponge can be compressed, yet it is a solid why ? Explain. (b) Name the state of matter that has minimum space between particles.
8. You are provided with a mixture of mustard oil and water. Name the technique to separate it and write the principle involved. Draw diagram of the technique used.
9. Do all cells, our body look alike in terms of shape, size and structure? Explain with the help of examples. What similarities do they have?
10. Give two features of following: (i) tissue that store fat (ii) tissue that stimulate impulses (iii) tissue that control contraction and relaxation of heart
11. Which will have greater inertia of A, B and C filled with same volume of mercury water and air . Give reason to support your answer.
12. A particle weight 120N on the surface of the earth. At what height above the earth's surface will its weight be 30N? Radius of the earth= 6400 Km.
13. A cow and a bird both travelling from A to B . The cow travelling in straight line but the bird travelled along the curved path as shown below:


a) what is the distance travelled by the cow?
b) what is the distance travelled by the bird?
c) which one of them has more displacement?
14. Calculate the acceleration due to gravity on the surface of satellite having mass 7.4×10^{22} kg and radius 1.74×10^6 cm ($G = 6.7 \times 10^{-11}$ Nm/kg²)
15. Why copper Sulphate solution in water does not show Tyndall effect but mixture of water and milk shows?
16. State the form of energy possessed by particles of matter in motion? How does the increase in temperature affect the rate of diffusion?
17. Raghu had a poor yield due to failure of the crop. His father Rajan suggested that he should grow two or more crops simultaneously in his field as this would reduce risk of loss. He suggested two crops that can be grown together. (i) Write the name of the cropping pattern which his father suggested. (ii) Write the names of the examples of crops given by his father. (iii) Mention any two values that are worth appreciation in his father's behaviour
18. (a) Draw a neat and labelled diagram of sclerenchyma tissue as seen in the transverse section (b) Mention the function of this tissue

19. Give reasons for the following taking into evaporation (a) while putting clothes for drying up we spread them out. (b) Clothes dry up faster when spread near a heater. (c) Clothes take very long to dry on a rainy day. (d) We feel cool when we pour acetone on our palm (e) We wear cotton clothes in summer

21. (a) Draw a neat diagram of an animal cell and label the parts whose functions are as follows :

(i) Helps in storage modification and packaging of products in vesicles. (ii) Helps in keeping the cell clean by digesting work-out cell organelles. (iii) helps in oxidation of glucose to produce energy in the form of ATP. (iv) Allows the entry and exit of some materials into and out of the cells. (b) Define nucleoid.

22. (a) Prove that if the earth attracts two bodies placed at the same distance from the centre of earth with equal force then their masses will be the same.

(b) Mathematically express the acceleration due to gravity in terms of mass of the earth and radius of earth.

(c) Why is 'G' called a universal constant ?

23 .The velocity-time graph of an object is as shown below.

(a) Identify the kind of motion of the object represented by lines OA and BC.

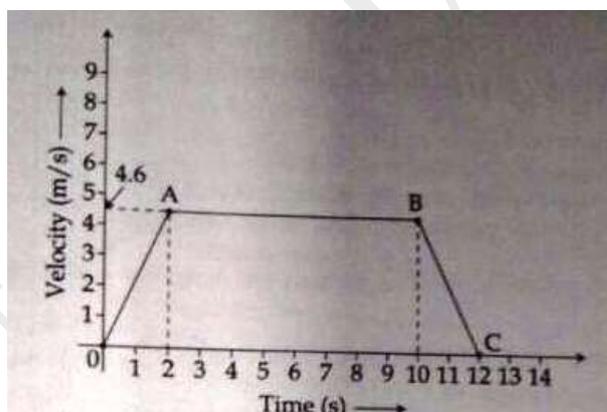
(b) With what velocity the object is moving at $t = 8$ seconds

(c) Calculate the acceleration of the object in the following cases :

(i) Between the third and tenth second.

(ii) During the last two seconds.

24. Explain the desirable traits obtained after cross-breeding an indigenous and an exotic breed of poultry birds



SECTION - B

25. We should use a test tube holder while adding conc. hydrochloric acid to the tutu obtained after dissolving a dal m water because :

(a) test tube might break (b) acid is corrosive (c) acid might fall and cause burns (d) test tube will become hot

26. The carbohydrate which turns blue black with iodine solution is : (a) Sugar (b) Starch 27 (r) Protein (d) Glucose

27. When Iron filings and sulphur powder are heated strongly in a china dish, then it forms

(a) an element (b) a compound (c) homogeneous mixture (d) heterogeneous mixture

28. When iron filings and sulphur powder is strongly heated in a china dish. The colour of the product iron sulphide obtained is : (a) yellow (b) grey (c) black (d) colourless

29. Komal heated some crystals of copper sulphate in a boiling tube and noted the water droplet along the walls of the tube and the colour of crystals changed from blue to white. This is because:

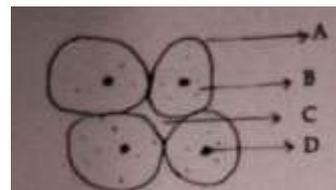
(a) Hydrated copper sulphate is white (b) Anhydrous copper sulphate is white

(c) Copper sulphate displaced Cu^{+2} ions (d) Copper sulphate displaces SO_4^{-2} ion

30. A student used a red stain for mounting a peel of onion. This corresponds to the strain:

(a) Acetocarmine (b) Methylene blue (c) Safranin (d) iodine

31. Intercellular space in the given diagram of parenchyma tissue is marked by the arrow. that is (a) A (b) B (c) C (d) D



32. Out of the following substance which does not undergo sublimation is

(a) Sugar (b) camphor (c) Iodine (d) Naphthalene

33. if you are performing the experiment to find the relationship between weight and friction . The string connecting the wooden block to the spring balance should be ;

(a) at an angle of 45° with the table (b) at an angle of 60° with the table
 (c) at an angle of 0° with the table, Horizontal and parallel (d) At an angle of 90° with the table, vertical

34. When egg albumin is added to water the clear solution became turbid. How would you test to conform that it is a colloidal solution?

[Filter the contents of test tubes. No residue left on the filter paper but filtrate obtained is translucent. Since, colloid cannot be separated by filtration it is colloid].

35. While determining the melting point of ice teacher instructed that the bulb of the mercury thermometer must remain in the middle of the ice and continuous stirring with glass rod must be done. Why do you think these precautions are necessary?

[Hint: To keep a uniform temperature throughout]

36. Prakash soaked 6g raisins in water and after 10 hours found that their mass has become 9g. Determine the percentage of water absorbed by raisins. Mention the process due to which raisins get swelled up.

$$\text{[Percentage of water soaked} = \frac{\text{Final weight} - \text{Initial weight}}{\text{Initial weight}} \times 100 = \frac{9-6}{6} \times 100 = 50\%]$$

Extra:

Q. 1. The Italian bee is better than local varieties for commercial honey production Why? State the meaning of pasturage. [3]

Q.2. Draw a labelled diagram to show the separation of the components of air. If the boiling point of oxygen and nitrogen are -183°C and -190°C respectively, which gas will form first liquid first. [3]

Q. Identify the following muscular tissues and draw their diagram, (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 lung (c) This tissue contracts and relaxes rapidly rhythmically throughout life? [5]

Q. State the Third law of Motion on the basis of the third law explain the following (a) A boat tends to leave the shore when passengers are alighting from it (b) The rocket moves upwards with high speed. (c) The air filled balloon moves vertically upwards when released. [5]

Q. Write the three equations (showing relation between initial velocity, final velocity, acceleration, time and distance covered) for the uniformly accelerated motion. Also derive the relation between (a, u, t and s) and (v, u, a and s) by graphical method. [5]

Q. (a) Define weed. Give two examples. (b) Why is it essential to remove weeds from agricultural fields (c) What are weedicides ? [5]