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Roll No. :

**SUMMATIVE ASSESSMENT-I- 2016-17**

**SUBJECT – SCIENCE**

**CLASS- IX**

**Time 3:00Hrs**

**M.M:90**

**General Instructions:**

- i. The question paper comprises of two Sections A and B. You are to attempt both the sections.
- ii. All Questions are compulsory.
- iii. Q. No. 1-3 in section A are one mark questions. These are to be answered in one word or in one sentence.
- iv. Q. No. 4-6 are two mark questions and are to be answered in about 30 words each.
- v. Q. No. 7-18 are three mark questions and are to be answered in about 50 words each.
- vi. Q. No. 19-24 are five mark questions and are to be answered in about 70 words each.
- vii. Q. No. 25-33 are multiple choice questions based on practical skills carry one mark each.
- viii. Q. No. 34-36 are explanatory questions based on practical skills and each carries two marks each.

**(SECTION A)**

1. Name the longest animal cell?
2. No force is required to move an object with a constant velocity. Why?

**[P.T.O.]**

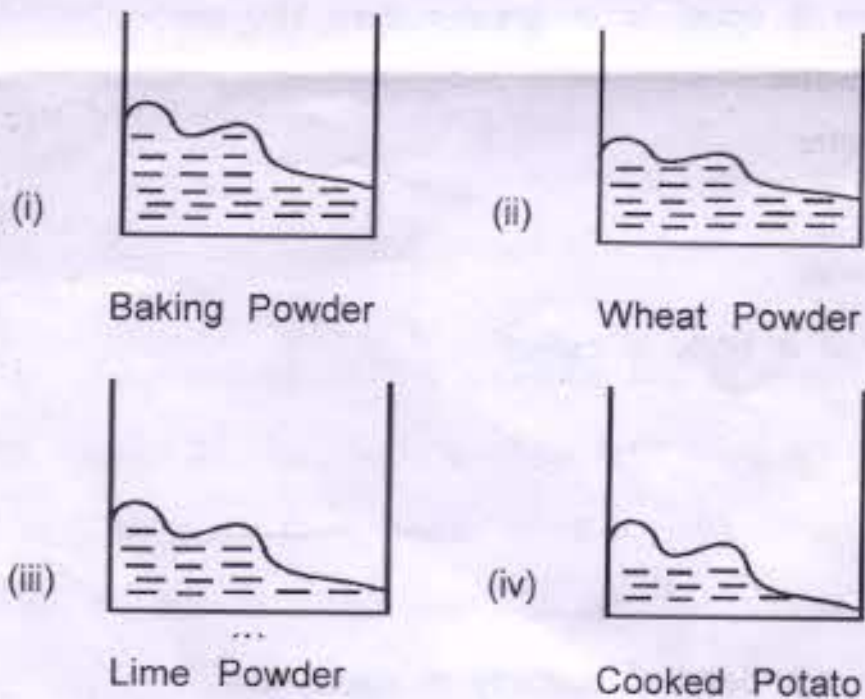
3. With which crop production is green revolution in our country connected?
4. Express the following temperature in kelvin scale :
- 25°C
  - 373°C
5. Write any two differences between speed and velocity.
6. Write the scientific name of each
- An exotic variety of honey bee
  - An indigeuous variety of honey bee
7. Differentiate between homogenous and heterogeneous mixture with example?
8. How much momentum will a dumbbell of mass 10kg transfer to the floor if it fall from a height of 80 cm?  
(Take its downward acceleration to be  $10\text{m/s}^2$ )
9. (a) Explain why does a desert cooler cool better on a hot dry day?  
(b) Why are we able to sip hot tea or milk faster from a saucer rather than a cup?
10. (a) Define evaporation.  
(b) You want to put your favourite shirt to a party but it is still wet after wash. What steps would you take to dry it faster?
11. Name the following :
- Tissue that transports the food in plants
  - Tissue that store fat in our body
  - Connective tissue with fluid matrix

12. (a) Why lysosomes are called suicidal bags?
- (b) A person takes concentrated salt solution, after some time, he start vomiting. Explain the phenomenon responsible for this situation.
13. Derive the equation for the position time relation by graphical method?
14. A train is travelling at the speed of 90km/h, brakes are applied so as to produce a uniform acceleration of  $-0.5\text{m/s}^2$ . Find how far the train will go before it is brought to rest?
15. Which separation techniques will you apply for the separation of the following:
- Ammonium chloride from a mixture containing sodium chloride and ammonium chloride?
  - Different pigments from an extract of flower petals?
  - Butter from curd?
16. (a) State any two differences between mass and weight.
- (b) Why moon keep revolving around earth in circular path?
17. Define crop rotation. What agronomic characteristics will you select for crop rotation?
18. Raman advised his friend Sumit to wear his safety belt, before he started driving.
- What do you think is the utility of a safety belt?
  - Which value would you appreciate in Raman's behaviour? Write any two.

19. (a) Draw a schematic diagram of a plant cell and label the following cell organelles in it.
- Nucleus
  - Mitochondria
  - Golgi apparatus
  - Endoplasmic Reticulum
- (b) Write any two differences between plant cell and animal cell.
20. Distinguish, in tabular form, between solid, liquid and gases under the following characteristics
- Intermolecular attraction
  - Density
  - Fluidity
  - Diffusion
  - Kinetic energy of particles at a given temperature.
21. a) How we can liquefy a gas ?  
b) State any two characteristics of colloids?  
c) What is dispersed, phase and dispersion medium of fog and milk ?
22. a) State and derive the universal law of gravitation.  
b) What do you mean by free fall? Give an example.
23. a) Define the term inertia. What are the different types of inertia?  
b) If action is always equal to the reaction, example how a horse can pull a cart ?
24. a) Write any three differences between fertilizers and manures  
b) What are macronutrients and why are they called macronutrients?

25. Tyndall effect is observed in
- True Solution
  - Starch + water
  - NaCl + water
  - Alum + water
26. Which one is not correct in case of a true solution of common salt in water?
- Its components are not separated by filtration.
  - Its particles are not seen by naked eye.
  - It is not transparent and it is not stable.
  - It does not show Tyndall effect.
27. The particle size is equal to or greater than 100 nm in
- $\text{CuSO}_4$  + water
  - Sand + water
  - NaCl + water
  - Alum + water
28. The nerve cell of a body is called
- cyton
  - axon
  - neuron
  - dendrite
29. The cells which are dead at maturity in plants are
- Parenchymatous
  - Collenchymatous
  - Sclerenchymatous
  - Chlorenchyma

30. For observing plant cells, which of the following stain is used ?
- Methylene blue.
  - Safranin.
  - Acetocarmine.
  - $I_2$  Solution.
31. The cell wall in plant cells is made up of
- Glycogen
  - Chitin
  - Cellulose
  - Starch
32. Students were instructed to add a few drops of iodine solutions each of the following set ups.



The content turned blue-black in set-ups

- I and II
- II and IV

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- (c) III and IV  
(d) IV and I
33. Adulterated arhar dal becomes plain yellow in colour due to adulterant
- a) Metanil yellow
  - b) Turmeric
  - c) Itching yellow
  - d) Malachite green.
34. Students were observing the rise in temperature while determining the boiling point of water. At a particular point they noticed that the temperature became constant for some time. What do you infer from the above observation? Write any one precaution.
35. 5 g of raisins were placed in distilled water for 24 hours. The mass of soaked raisins was found to be 7g, calculate the percentage of water absorbed by raisins. Write one precaution that needs to be taken in his experiments.
36. Mention any two methods to reduce friction.

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