

SUMMATIVE ASSESSMENT I 2015-16

General Instructions:

- (i) The question paper comprises of two sections A and B. You are to attempt all the sections.
- (ii) All questions are compulsory.
- (iii) There is no choice in any of the question.
- (iv) All questions of section-A and B are to be attempted separately.
- (v) Question numbers 1 to 3 in section- A are one mark questions. There are to be answered in one word or in one sentence.
- (vi) Question numbers 4 to 6 in section-A are two mark questions. These are to be answered in about 30 words each.
- (vii) Question numbers 7 to 18 in section -A are three mark questions. These are to be answered in about 50 words each.
- (viii) Question numbers 19 to 24 in section -A are five mark questions. These are to be answered in about 70 words each.
- (ix) Question numbers 25 to 33 in section-B are multiple choice questions based on practical skills. Each question carries one mark.
- (x) Question numbers 34 to 36 in section-B are explanatory questions based on practical skills. Each question carries two marks.

SECTION–A

1. Why do solid substances not diffuse?
2. Name the second outermost layer of a plant cell?
3. Which Newton's law of motion gives the measure of force?
4. Name the technique to separate:
 - (a) Butter from curd
 - (b) Salt from sea water
 - (c) Camphor from salt
 - (d) Kerosene and petrol from their mixture
5. Why mitochondria is called 'powerhouse of the cell'?
6. How does the force of gravitation between two objects change when the distance between them is reduced to half?
7. Write three differences between mass and weight.
8. (a) Why is the weight of an object on the moon is $1/6^{\text{th}}$ its weight on the earth?
(b) Write the SI unit of universal gravitational constant (G).
9. State the law of inertia. Why do we fall in the forward direction if a moving bus stops suddenly and fall in the backward direction if it suddenly accelerates from rest?
10. Rina took some ammonium chloride in a china dish and put an inverted funnel with a cotton plug on its tip. Then she heated it slowly.

osbincbse.com (ii) What would she observe?

(ii) Name the phenomenon that takes place.

(iii) Name any two other substance with which she can make similar observation.

11. A stone dropped from a window reaches the ground in 0.5 seconds.

(i) Calculate its velocity just before it hits the ground.

(ii) Calculate the height of window from the ground.

12. Give the reason for the following :

(i) The temperature of water remains constant during boiling.

(ii) Evaporation is a surface phenomenon.

(iii) The spaces between constituent particles are maximum in gases.

13. Write two characteristics of solid, liquid and gaseous matter each in tabular form.

14. Write the differences between prokaryotic and eukaryotic cell.

15. Draw a labelled diagram of a plant cell.

16. A force of 5N produces an acceleration of 8m/s^2 on a mass m_1 and an acceleration of 24m/s^2 on a mass m_2 . What acceleration would the same force provide if both the masses are tied together?

17. What do you understand by organic farming? Write its two advantages.

18. Write three differences between fertiliser and manure.

19. (a) What is evaporation? Explain how surface area and wind speed affect the rate of evaporation.

(b) What produces more severe burns, boiling water or steam? Give reason.

20. Answer the following:

(a) What are the two types of complex permanent tissues?

(b) Blood is which type of tissue?

(c) Which conducting tissue transport food from leaves to other parts of plants?

(d) Name the blood cells which fight against pathogens?

(e) Which muscle has spindle shaped cells?

21. (a) Give the term used for rearing of fish. What do you mean by inland fisheries?

(b) Write two advantages of crop rotation?

(c) What are milch animals?

22. (a) Write three differences between compound and mixture.

(b) A solution contains 40g of common salt in 460g of water. Calculate the concentration of the solution in mass %.

23. (a) Write Newton's second law of motion .

(b) Derive the mathematical relation of Newton's second law of motion.

24. Ram and Shyam are students of the same school that is 18 km away from their hostel. One day, they started from their hostel at the same time with an initial velocity of 29.8 km/h. At this speed, it would take 20 min for them to reach the school on time. After 5 min, Ram stopped due to some problem in his cycle. Shyam did not wait for him and moved forward. Ram took another 5 min to repair his cycle. He again

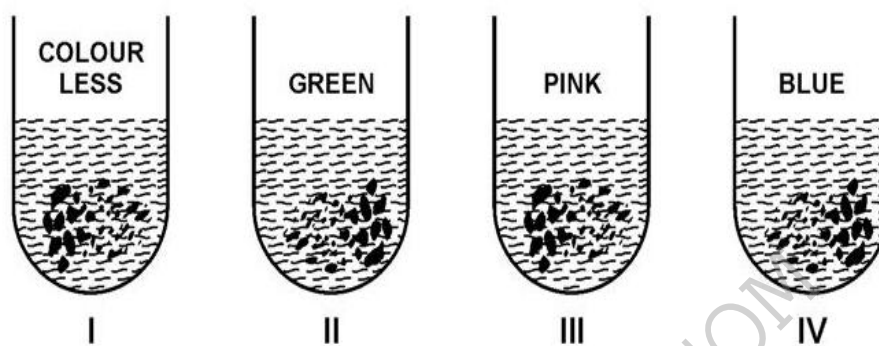
osbincbse.com started with the same initial velocity as he started from the hostel.

Answer the following question based on the above passage:

- (i) What value is not shown by Shyam?
- (ii) At what distance from their hostel did Ram stop?
- (iii) What is the required acceleration for Ram to reach his school on time when he started the second time?

SECTION-B

25. Sita heated a mixture of iron filings and sulphur in a hard glass test tube for some time till a grey-black product was formed. She cooled the test tube and then added 2 ml carbon disulphide in it and shook the contents of the test tube. The observation made by her was likely to be as shown below :



(a) I

(b) II

(c) III

(d) IV

26. Which of the following is a sublime substance?

- (a) Ammonium chloride
- (b) Naphthalene
- (c) Camphor
- (d) All of the above

27. 'Nucleus in the cell' was discovered by:

- (a) Leuwenhoek
- (b) Robert Brown
- (c) Purkinje
- (d) Schleiden and Schwann

28. Dry ice is:

- (a) Ice without water
- (b) Solid carbon monoxide
- (c) Solid carbon dioxide
- (d) All of the above

29. Rahul added 2ml of Barium chloride solution to 2ml Sodium sulphate solution in a test tube and observes that:

- (a) A clear solution was obtained
- (b) Two solutions formed separate
- (c) The solution turned pink
- (d) A white solid settled at the bottom

osbinbase.com 30. Multinucleated condition is seen in:

- (a) Only smooth muscle cells
- (b) Only skeletal muscle cells
- (c) Both smooth and skeletal muscle cells
- (d) Neither smooth nor skeletal muscle cells

31. Aditya added 1 or 2 drops of iodine to three test tubes A, B and C containing 2 ml of food sample. A dark blue black colour appeared in test tubes A and B. The correct order of the food samples taken in the three test tubes A, B and C is:

- (a) Rice, dal, potato
- (b) Rice, potato, dal
- (c) Potato, dal, rice
- (d) Dal, potato, rice

32. Raman sets up an apparatus to find the melting point of ice. When half of the ice had melted, the temperature shown by the thermometer is:

- (a) more than 0°C
- (b) less than 0°C
- (c) 0°C
- (d) 100°C

33. Apiculture is related to rearing of:

- (a) Horses
- (b) Bees
- (c) Silkworm
- (d) Milch animals

34. What happens when an animal cell is placed in a very dilute external medium. Give reason.

35. What happens when saturated solution is heated and added with some more amount of solute?

36. During performing the practical, student-A kept the wooden block on polished wooden surface and measured the minimum force required to pull it as F_1 while student-B kept wooden block on a rough surface which is covered with sand and measured the minimum force required to pull it as F_2 . They repeated the experiment 5 times. Which student applied more force to pull the block?