
CBSE SAMPLE PAPER – 06 (Unsolved)

SUMMATIVE ASSESSMENT – I

Class-IX (SCIENCE)

Time: 3 Hrs

MM: 90

General Instructions:

- a) All questions are compulsory.
 - b) The question paper comprises of two sections, A and B. You are to attempt both the sections.
 - c) Questions 1 to 3 in section A are one mark questions. These are to be answered in one word or in one sentence.
 - d) Questions 4 to 6 in section A are two marks questions. These are to be answered in about 30 words each.
 - e) Questions 7 to 19 in section A are three marks questions. These are to be answered in about 50 words each.
 - f) Questions 20 to 24 in section A are five marks questions. These are to be answered in about 70 words each.
 - g) Questions 25 to 33 in section B are multiple choice questions based on practical skills. Each question is a one mark question. You are to select one most appropriate response out of the four provided to you
 - h) Questions 33 to 36 in section B are two marks questions based on practical skills. These are to be answered in about 30 words each.
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Section A

- Q1 Name the tissue present in the husk of coconut.
 - Q2 Who discovered the basic structural and functional unit of life in 1665?
 - Q3 Convert 50° C to K.
 - Q4 Differentiate between tendon and ligament.
 - Q5 Why does our palm feel cold when we put some acetone on it?
 - Q6 A bus starts from rest and attains a velocity of 36 km/h in 5 seconds. Find the acceleration produced and the distance travelled by the bus in these 5 seconds.
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- Q7 What is green manuring? Mention its advantage. Name any two common green manure crops.
- Q8 Explain the following observations:
- a) An almirah is a solid.
 - b) Naphthalene balls disappear with time without leaving any residue.
 - c) Ice has a better cooling effect as compared to water at 0°C .
- Q9 Name the techniques used to separate the following:
- a) Oil and water
 - b) Blue and black ink
 - c) Butter from milk
- Q10 State the difference between broilers and layers in their management. Give one reason to select one Jersey cow to cross breed with one Red Sindhi cow.
- Q11 Name the basic unit of nervous tissue. Also draw its labelled diagram.
- Q12
- a) Air is a mixture whereas water is a compound. Comment.
 - b) Give one example each of a homogenous and a heterogenous mixture.
- Q 13 Name the cell organelles which are called the suicidal bag and powerhouse of the cell respectively. Also explain why are they called so?
- Q14 State law of conservation of momentum. Derive its mathematical expression.
- Q 15 Explain why:
- a) If we kick a football it flies away but if we kick a stone of the same size with a n equal force, it hardly moves.
 - b) It is advised to wear seat belts while driving.
 - c) If we hit a hard surface with our fist, we also feel hurt.
- Q 16 What happens to the force between two objects if:
- a) The mass of one object is doubled
 - b) The distance between the objects is doubled
 - c) The masses of both the objects are doubled.
- Q17 Justify:
- a) Vascular bundle is the major transportation system in plants.
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- b) Plasma membrane is a selective membrane.
 - c) Plant cell would burst if there was no cell wall.

Q18 A ball thrown up vertically returns to the thrower in 6 seconds. Calculate:

- a) The velocity with which it was thrown
- b) The maximum height it reaches
- c) The position after 4 seconds.

Q 19 The mass of the Earth is 6×10^{24} Kg and that of the Moon is 7.4×10^{22} Kg. If the distance between the Earth and the Moon is $3,84 \times 10^5$ Km, calculate the force exerted by the Earth on the Moon.

Q20 a) How does evaporation differ from boiling?
b) Name the factors affecting evaporation and explain any one factor.

Q 21 a) What are the differences between physical and chemical changes?
b) Is heating water a physical change or a chemical change? Justify your answer.
c) Is digestion of food a physical change or a chemical change? Justify your answer.

Q22 What is crop rotation? How are crops selected for crop rotation? Why crops of the same family should not be grown repeatedly in the same field?

Q23 a) Show how mathematically force is related to momentum.
b) Which exerts more force – an object of mass 2 Kg moving with an acceleration of 2 ms^{-2} or an object of mass 2 Kg moving with an acceleration of 0.5 ms^{-2}
c) Find the acceleration produced on pushing an object of mass 1 tonne with a force of 100 N.

Q24 Anuja is very excited today. Her teacher has told her about how the law of gravitation was discovered. When she returned from school, her younger sister was playing with a toy which fell down. Her sister asked why things fall downwards. Anuja explained her sister enthusiastically.

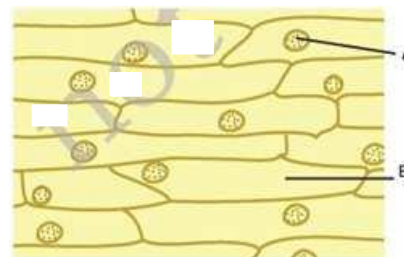
- a) Who discovered the law of gravitation?
 - b) State the law of gravitation.
 - c) What qualities of Anuja are exhibited here.
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Section B

- Q25 Manu added 2 drops of iodine solution to two samples and obtained blue-black colour. His food samples could be:
- a) Potato
 - b) Rice
 - c) Both a) and b)
 - d) None of these
- Q26 Given below are four steps for preparing a temporary mount of human cheek cells:
- i) Taking scraping from the inner side of the cheek and spreading it on a clean slide.
 - ii) putting a drop of glycerine on the material
 - iii) adding three drops of methylene blue
 - iv) rinsing the mouth with fresh water and disinfectant solution.
- The correct sequence of these four steps is:
- a) i,ii,iii,iv
 - b) i,iii,ii,iv
 - c) iv,i,iii,ii
 - d) iv.i.ii.iii
- Q27 How can you separate iron fillings from sulphur powder?
- a) By heating
 - b) By cooling
 - c) By using a magnet
 - d) By both heating and cooling
- Q 28 What is correct about striped muscle tissue?
- a) Branched
 - b) Striated
 - c) Unstriated
 - d) Involuntary
- Q29 For pulling a wooden block placed over a table with the help of a spring balance, which of these is correct?
- a) Block should be rough
 - b) Table should be rough
 - c) Both block and table should be rough
 - d) Both block and table should be smooth
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Q30 A,B in the given diagram are respectively

- a) nucleus, cell membrane
- b) nucleus, cytoplasm
- c) cytoplasm, nucleus
- d) cytoplasm, cell membrane

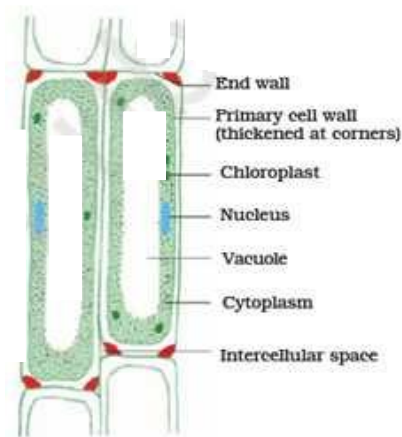


Q31 Anju added 2ml of barium chloride solution to a test tube containing 2ml of sodium sulphate solution and obtained

- a) A clear solution
- b) A blue coloured solution
- c) A white solid at the bottom of the test tube
- d) Two separate layers

Q32 Identify the tissue

- a) Longitudinal section of parenchyma
- b) Transverse section of parenchyma
- c) Longitudinal section of sclerenchyma
- d) Transverse section of sclerenchyma



Q33 Starch in water is a :

- a) Solution
- b) Colloid
- c) Suspension
- d) All of these

Q34 Anil was performing an experiment with raisins. He recorded the following data:

Mass of water taken in the beaker = 50g

Mass of raisins before soaking = 20g

Mass of raisins after soaking = 30g

Mass of water left in the beaker after soaking = 40g

Calculate the % of water absorbed by the raisins.

Q35 What are the precautions to be taken while using a thermometer in determination of melting point of ice.

Q36 How will you separate a mixture of sand, ammonium chloride and salt?