

SA-1

9th Class Biological Science – Full Answer Key (AP SCERT)

ANSWER KEY – SECTION A (MCQs)

- 1 B) Nucleoid
- 2 D) Both A & R correct; R explains A
- 3 C) Deshelled egg + saline water + beaker
- 4 C) Incorrect – Smooth ER stores proteins
- 5 B) 1, 2 & 3
- 6 C) Parenchyma
- 7 A) They would not need a host
- 8 C) Reduce heat loss & act as insulator
- 9 D) Meghana & Manoj
- 10 D) a & c

SECTION – B (3×2 = 6 Marks)

11) Measures to strengthen cardiac muscle ❤

- Regular aerobic exercise (walking, jogging)
- Deep breathing & yoga
- Healthy diet (low fat, high fiber)

12) Prokaryotic vs Eukaryotic Cells 📈

Feature.	Prokaryotic Cell	Eukaryotic Cell
Nucleus	✗ Absent	✓ Present
Organelles	Few.	Many membrane-bound
Size	Small	Large

■ SECTION – C (2×4 = 8 Marks)

13) Name the following 

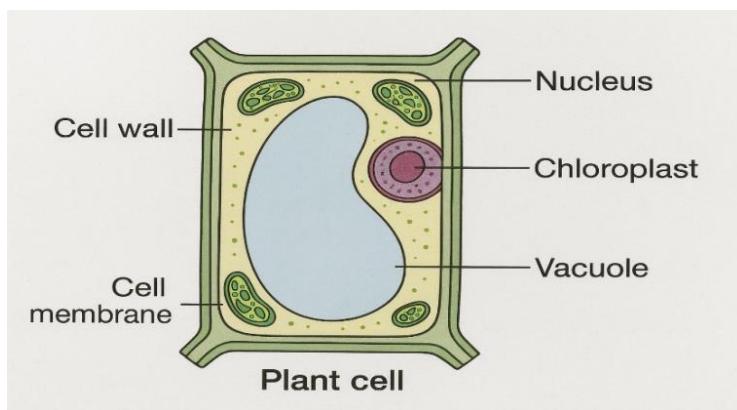
i) Tissue lining inner mouth → Stratified squamous epithelium

ii) Fluid connective tissue → Blood 

14) Four daily-life situations using diffusion 

- Smell of perfume spreading
- Ink spreading in water
- Gas exchange in lungs
- Aroma of food spreading from kitchen

15) Neat labelled diagram of Plant Cell 



■ SECTION – D (2×8 = 16 Marks)

16 A) Any 4 cell organelles & functions 

Organelle	Function
Nucleus	Controls activities
Mitochondria	Energy production
Ribosomes	Protein synthesis
Vacuole	Storage

OR

16 B) Muscle Tissue Types

Type Features Location

Skeletal Voluntary, striated Arms, legs

Smooth Involuntary, spindle shaped Stomach, . intestine

Cardiac. Involuntary, branched Heart 

17 A) Procedure to observe plant tissues under microscope

- Take a fresh onion bulb and remove its dry outer scales.
- Gently peel a thin, transparent layer (epidermal peel) from the inner side of the onion with the help of forceps.
- Place the peel on a clean glass slide.
- Add a few drops of water to prevent the peel from drying.
- Now add 1–2 drops of safranin stain to colour the cells for clear visibility.
- Allow the stain to act for about one minute.
- Drain out the extra stain carefully without disturbing the peel. Slowly lower a coverslip on the peel using a needle to avoid air bubbles.
- Remove excess water or stain around the coverslip using blotting paper or tissue.
- Place the slide on the stage of the microscope and adjust the mirror for proper light.
- First observe the peel under low power to locate the cells.
- Then observe under high power to clearly identify the cell wall, nucleus, cytoplasm, and other structures of plant tissues.

OR

17 B) Meristematic Tissue

Definition: Tissue with actively dividing cells.

Types:

- Apical – root & shoot tips
- Intercalary – at internodes
- Lateral – causes secondary growth

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