

Yakeen NEET 2.0 - 2026

Botany By Rupesh Chaudhary Sir Cell - The Unit of Life

(NCERT Booster - 03)

1. Correct

- A. cell envelope is chemically simple
- B. cell envelope is tightly bound
- C. all have same function but different composition
- D. all work as protective unit
- E. from outer to inner (glycocalyx-cell membrane-cell wall)

Options

- (A) 0
- (B) 1
- (C) 2
- (D) 3

2. Correct

- (A) bacteria can be classify into gram positive & negative
- (B) criteria is only staining procedure
- (C) difference in cell envelope is not a criteria
- (D) those take crystal violet are Gram negative and those do not are gram positive

3. Correct

- (A) Glycocalyx thickness composition same in all bacteria
- (B) loose sheath : capsule & thick tough : slime layer
- (C) cell wall determine shape & structural support
- (D) cell wall promote bursting & collapsing

4. Plasma membrane

- (A) semipermeable
- (B) do not interact with outside
- (C) its structure almost similar in prokaryote & eukaryote
- (D) none

5. Mesosome (incorrect)

- A. it works similar to mitochondria in eukaryotes
- B. extension of cell wall
- C. extension can have different form
- D. help in cell membrane synthesis
- E. helps in respiration, secretion process
- F. Not help in DNA replication & distribution in daughter cell

Options

- (A) 1
- (B) 2
- (C) 3
- (D) 4

6. Correct

- (A) mesosome increase surface area & decrease enzyme content
- (B) all prokaryote have chromatophore
- (C) chromatophore present in some prokaryote where pigments absent
- (D) chromatophore helps in photosynthesis, extension of cell membrane in cytoplasm

7. Correct

- (A) all bacteria have flagella
- (B) thick filamentous extension from cell membrane : flagella
- (C) all bacteria have fixed flagella
- (D) prokaryote flagella contain tubulin protein
- (E) All are incorrect

8. bacteria flagella

- (A) is similar to eukaryote flagella
- (B) consist of filament hook basal body
- (C) filament is shortest
- (D) none



9. Correct

- (A) flagella, pili, fimbriae are surface structure of bacteria
- (B) all do not play role in motility
- (C) pili are elongated, shortest compare to fimbriae
- (D) pili made up of tubulin protein

10. Incorrect

- (A) Fimbriae are shortest & less in number
- (B) they helps in attachment to rock (bristle like)
- (C) both are correct
- (D) none

11. Assertion (**A**): Polysome consist of many ribosome on single m-RNA

Reason (\mathbf{R}): These ribosome translate mRNA into protein

- (A) Both A and R are true and R is the correct explanation of A.
- (B) Both A and R are true but R is NOT the correct explanation of A.
- (C) A is true but R is false.
- (D) A is false but R is true.

12. Correct

- (A) Ribosome not associated with cell membrane in bacteria
- (B) 15 nm length & 20 nm width
- (C) 50S @ 40S two units
- (D) ribosome do not synthesis protein



Answer Key

1. (C)

2. (A)

3. (C)

4. (C)

5. (D)

6. (D)

7. (E)

8. (B)

9. (A)

10. (B)

11. (A)

12. (B)