Yakeen NEET 2.0 2026

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Cell - The Unit of Life

DPP: 3

Q1 Cell envelope involve all, **except**:
(A) cell wall.
(B) mesosomes.
(C) glycocalyx.
(D) plasma membrane.

Q2 A specialised structure develop from cell membrane of prokaryotes cell is:
(A) Flagella (B) Mesosome
(C) Cilia (D) Vacuoles

Q3 Which of the following is **not** a function of mesosomes?
(A) Cell wall formation
(B) Respiration
(C) DNA replication
(D) Photosynthesis

Q4 Bacterial cells have a chemically complex cell envolope. The cell envelope consists of a tightly bound three layer structure i.e., the:
(A) outermost cell wall followed by the plasma membrane and then the glycocalyx.
(B) outermost glycocalyx followed by plasma membrane and the cell wall.
(C) outermost cell wall followed by the glycocalyx and then the plasma membrane.
(D) outermost glycocalyx followed by the cell wall and then the plasma membrane.

Q5 Which layer of the cell envelope determines the shape of the cell and provides a strong structural support to prevent the bacterium from bursting or collapsing?
(A) Cell wall
(B) Cell membrane
(C) Glycocalyx
(D) Capsule

Q6 A capsule in bacteria is related to:
(A) glycocalyx.
(B) cell wall.
(C) plasma membrane.
(D) None of these.

Q7 The term "Glycocalyx" is used for:
(A) a layer surrounding the cell wall of bacteria.
(B) a layer present between cell wall and plasma membrane of bacteria.
(C) cell wall of bacteria.
(D) bacterial cell geneticaly engineered to possess N- glycosylated proteins.

Q8 In some bacteria, the outermost layer is a loose sheath layer called as:
(A) slime layer. (B) capsule.
(C) cell membrane. (D) glycocalyx.

Q9 All of the following statements are correct about plasmids except-
(A) They are extrachromosomal DNA
(B) They are smaller, circular, double stranded naked DNA that confer certain unique phenotypic characters to some bacteria like resistance to antibiotics
(C) They are used in genetic engineering
(D) It helps in the replication of nucleoid

Q10 Which one is not a component of nucleoid?
(A) DNA (B) RNA
(C) Protein (D) Lipid

Q11 Which structures perform the function of mitochondria in bacteria?
(A) Mesosomes (B) Plasmid
(C) Ribosomes (D) Cell wall

Q12 What is the special protein found in pili?

(A) Flagellin (B) Nexin
(C) Dyenin (D) Pilin

Q13 Which of the following are small bristle like structures found in bacteria?
(A) Pili (B) Flagella
(C) Fimbriae (D) Cilia

Q14 Which of the following is/are surface structure?
(A) Fimbriae
(B) Flagella
(C) mesosomes
Mark the **correct** choice.
(A) A and B (B) A and C
(C) All three (D) Only B

Q15 Which of the following is longest surface structure of bacteria?
(A) Pili (B) Fimbriae
(C) Flagella (D) All

Q16 Bacterial flagellum is composed of:
(A) three part - filament, hook and basal body.
(B) two parts - filament and basal body only.
(C) three parts - filament, hook and fimbriae.
(D) two parts - pili and fimbriae.

Q17 The structures that help some bacteria to attach to rocks and/or host tissues are:
(A) fimbriae. (B) mesosomes.
(C) pili. (D) flagella.

Q18 The type of ribosomes found in prokaryotes is
(A) 80 S type
(B) 70 S type
(C) 30 S type
(D) 50 S type

Q19 Which of the following statements about inclusion bodies is incorrect?
(A) They are not bound by any membrane.
(B) These are involved in ingestion of food particles.
(C) They lie free in the cytoplasm.
(D) These represent reserve material in cytoplasm.

Q20 In prokaryotes, chromatophores are:
(A) specialised granules responsible for food storage within the cells.
(B) structures responsible for organizing the shape of the organism.
(C) inclusion bodies lying free inside the cells for carrying out various metabolic activities.
(D) membranous extension into the cytoplasm which contain pigments.

Q21 Which option is **correct** about prokaryotic ribosomes?
I.They measure 15x 20 mm
II.They translate rRNA into proteins
III.They form polysome by attaching with single messenger RNA
IV.The smaller subunit is the 40S (where S is the sublimation coefficient)
(A) Only I and II
(B) Only I
(C) Only I,III
(D) Only III

Q22 Given below are two statements: one is labelled as Assertion A and the other is labelled as Reason R:
Assertion (A): Reserve materials in eukaryotic cells are stored in the cytoplasm in the form of inclusion bodies.
Reason (R): Inclusion bodies are not bound by any membrane system and lie free in the cytoplasm.
In the light of the above statements, choose the **correct** answer from the options given below:
(A) A is true but R is false.
(B) A is false but R is true.
(C) Both A and R are true and R is the correct explanation of A.
(D) Both A and R are true and R is not the correct explanation of A.

Answer Key

Q1	(B)
Q2	(B)
Q3	(D)
Q4	(D)
Q5	(A)
Q6	(A)
Q7	(A)
Q8	(A)
Q9	(D)
Q10	(D)
Q11	(A)
Q12	(D)
Q13	(C)
Q14	(A)
Q15	(C)
Q16	(A)
Q17	(A)
Q18	(B)
Q19	(B)
Q20	(D)
Q21	(D)
Q22	(B)