
	INDIAN SCHOOL AL WADI AL KABIR	
Class: XI	Department: SCIENCE 2021 -22 SUBJECT: BIOLOGY	Date of submission: 06.06.2021
Worksheet NO.8 WITH ANS.	CHAPTER: Cell: Structure and functions	Note: A4 FILE FORMAT
NAME OF THE STUDENT	CLASS & SEC:	ROLL NO.

ONE MARK QUESTIONS

1. Name the membrane which surrounds the vacuole in cell.
2. Give an example for a prokaryote without cell wall
3. Give the structural composition of ribosomes
4. Name the organelles which are a part of endomembrane system
5. What is cytoskeleton?

TWO MARKS QUESTIONS

6. List the functions of Golgi bodies.
7. Mention two differences between SER & RER.
8. What are the cell inclusions in prokaryotic cell?
9. Mention the similarities between mitochondria and chloroplasts.
10. What are the methods of passage of substances across the cell membrane?

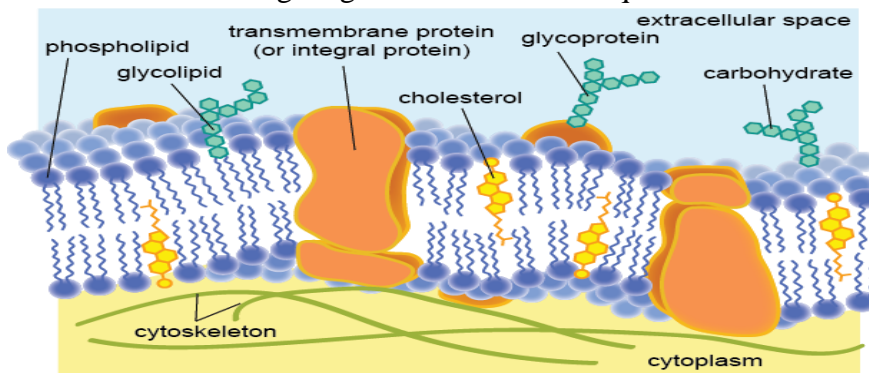
THREE MARKS QUESTIONS

11. What are mesosomes? Mention their functions.

12. Give the differences between prokaryotes and eukaryotes.
13. Give a brief description about the cell envelope in prokaryotes
14. Name the organelles that are coming under endomembrane system. Why they are known so?
15. Tabulate the names, specialties and functions of different types of plastids

FIVE MARKS QUESTIONS

16. Describe the ultra-structure of a cilium or flagellum.
17. Describe the structural organization of a typical eukaryotic chromosome. What are different types of chromosomes on the basis of position of centromere?
18. With the help of a neat labelled diagram explain the structure of chloroplast.
19. Answer the following questions
 - (a) Name the organelle which is known as power houses of cell. Why they are known so?
 - (b) Name the organelle which is known as suicidal bags. Why they are known so?
 - (c) Distinguish between 70S & 80S ribosomes
 - (d) What is the speciality of satellite chromosomes?
20. Observe the following diagram and answer the questions followed.



- (a) Identify the figure
- (b) Explain the structure in detail
- (c) Who proposed this model?

ANSWER KEY (Hints)

ONE MARKS QUESTIONS

1. Tonoplast
2. Mycoplasma
3. RNA and proteins

4. ER, Golgi bodies, lysosomes and vacuole
5. The proteinaceous frame work in eukaryotes that helps in support

TWO MARKS QUESTIONS

6. (Hints: packaging, modification and secretion of materials produced in ER)
7. (Hints: SER – no ribosomes, lipid synthesis, RER – ribosomes are present, protein synthesis)
8. (Hints: Storage bodies in prokaryotes, cyanophycean granules, phosphate granules, gas vacuoles)
9. (Hints: Presence of ribosomes and DNA, double membrane bound)
10. (Hints: Active transport, passive transport, osmosis)

THREE MARKS QUESTIONS

11. (Hints: Infoldings from plasma membrane, present in prokaryotes, functions – secretion, cell wall formation, DNA replication, respiration)
12. (Hints: nucleoid – nucleus, nuclear membrane – absent/present, cell organelles – present/ absent, size of the cells, number of chromosomes, number of cells)
13. (Hints: Structure of glycocalyx, cell wall and plasma membrane)
14. (Hints: ER, Golgi bodies, lysosomes, vacuoles – functions are coordinated)
15. (Hints: Table with Amyloplast, elaioplast and aleuroplast – pigments present in them, colour, functions)

FIVE MARKS QUESTIONS

16. (Hints: Structure – presence of plasma membrane, Axoneme, radial spokes, linkers, hub, microtubules, 9+2 arrangement of microtubules, doublets, central tubule and central sheath, diagram of flagella anatomy)
17. (Hints: Structure – arms known as chromatids, centromere, kinetochore, types – metacentric, sub metacentric, telocentric and acrocentric – explanation and diagrams)
18. (Hints: Shape, double membrane bound, matrix – stroma, thylakoids and grana, stroma lamellae, presence of ribosomes and DNA, enzymes for photosynthesis, diagram)
19. (Hints: (a) – Mitochondria – energy production, storage and distribution, (b) – Lysosomes – disintegration of cell when heavily infected by releasing hydrolytic enzymes (c) 70S – prokaryotes, 50S + 30 S, 80S – eukaryotes, 60S + 40S (d) Presence of secondary constriction and satellite)
20. (Hints: (a) – Structure of plasma membrane, (b) – components – lipids, proteins and carbohydrates, fluid mosaic model – lipid bilayer, intergral and peripheral proteins, glyco proteins, arrangement of lipid molecules, fluidity and mosaic pattern, (c) Singer and Nicholson)

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