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1ST YEAR REVISION & TEST SESSION

NAME:			ROLL NO:		TIME:	50: MIN
SUB:	Biology	Date:			CLASS:	1st Year
SYLLABUS	Chp. 3 (Cells and Subcellular Organelles)		T. MARKS	30	OBT. M	

Q. 1 Choose the Correct Answer. Cutting, Erasing, Double Selection is Strictly Prohibited. (1x6=6)

1. **Which of the following is not an accurate description of a chromosomes:**
   (A) It is a coloured body localized in the nucleus
   (B) It is a protein and nuclei acid complex
   (C) It is the cellular structure that contain the genetic material
   (D) In eukaryotes, it is composed of many DNA molecules attached end to end
2. **The rough endoplasmic reticulum is:**
   (A) An intracellular single-membrane system to which ribosomes are attached
   (B) An intracellular membrane that is studded with micro-tubular structures
   (C) A membranous structure found within mitochondria
   (D) Only found in prokaryotic cell
3. **Which of the following statements does not apply to the nuclear envelope:**
   (A) It is a double membrane
   (B) It is continuous with the endoplasmic reticulum
   (C) It has infoldings to form cristae
   (D) It has pores through which material enters and leaves
4. **All peroxisomes carry out this function:**
   (A) Break down fats and amino acid into smaller molecules that can be used for energy production by mitochondria
   (B) Digest macromolecules using the hydrolytic enzymes they contain
   (C) Synthesize membrane components such as fatty acids and phospholipids
   (D) Control the flow of ions into and of the cell
5. **Which of the following does not apply to chloroplasts:**
   (A) They contain chlorophyll and the enzyme required for photosynthesis
   (B) They contain an internal membrane system consisting of thylakoids
   (C) They synthesize ATP
   (D) They are bounded by two membranes, the inner of which is folded into the cristae
6. **How does the process of facilitated diffusion from active transport?**
   (A) Facilitated diffusion requires energy, active transport does not
   (B) Facilitated diffusion does not require energy, active transport
   (C) Both processes required energy
   (D) Both processes do not require energy

PART-I

Q. 2 Write Short Answers of the Following Questions (2x8=16)

i. State the cell theory. How we can validate it? What are the exception to cell theory?
ii. Categorize the organelles as (i) single membrane bounded, (ii) double membrane bounded and (iii) lacking any membrane.
iii. State two features that mitochondria have in common with prokaryotes.
iv. List the structure and molecules, which can cross the nuclear envelope.
v. Describe the role of the Golgi body in forming lysosomes.
vi. What do you mean by ''stem cell''? What are the main usages of stem cells?
vii. What is the Role of Stroma in Chloroplast Function.
viii. Why are embryonic stem cells considered pluripotent?

PART-II

Write Answers of the Following Questions in Detail.

Q. 3 (a) Discuss nuclear envelope and nuclear pore complex in details. 4
(b) Describe the pathway of protein signal and steroid signal from outside of a cell to inside. 4

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Answer Key						
1	D	**2**	A	**3**	**4**	A
5	D	**6**	B			