

First Term Exam of Animal Biology & Histology Module

MCQs: Read the questions carefully, and encircle the letter (s) of the correct answer (s) (19 pts).

- 1- **Both Bacteria & Archaea are prokaryotes (1 pt)**
 - a) True
 - b) False

- 2- **Which of these statements is CORRECT? (1 pt)**
 - a) Unlike the head, the tail of the cell membrane phospholipid is hydrophilic
 - b) Unlike ER, cisternae of Golgi apparatus are interconnected
 - c) Lamins are Intermediate filaments of muscle cells
 - d) None of the above

- 3- **Which of the following cells contain NEITHER nucleus NOR mitochondria? (1 pt)**
 - a) Hepatocytes (liver cells)
 - b) Erythrocytes (RBC)
 - c) Terminal keratinocytes
 - d) Monocytes

- 4- **Glucose transport across cell membranes can occur through: (1 pt)**
 - a) Simple diffusion
 - b) Phagocytosis
 - c) Carrier proteins
 - d) None of the above answers

- 5- **N-linked glycosylation is: (1 pt)**
 - a) a post-translational modification that takes place in the Golgi apparatus
 - b) a protein modification that takes place in the rough endoplasmic reticulum (rER)
 - c) is generally followed by the O-linked glycosylation
 - d) takes place in the lysosome membrane

- 6- **Krebs cycle: (1 pt)**
 - a) is the second stage of cellular respiration after glycolysis
 - b) takes place in the mitochondrial cristae
 - c) is the final stage of cellular respiration
 - d) takes place in the mitochondrial matrix

- 7- **Which of the following statements defines polysomes? (1 pt)**
 - a) Lysosomal aggregation
 - b) Multiple units of ribosomes
 - c) Attachment of many ribosomes to common mRNA
 - d) Attachment of many mRNA to ribosomes

- 8- **Eukaryotic cells have 80S ribosomes (1 pt)**
 - a) True
 - b) False

- 9- What is the site of rRNA synthesis? (1 pt)
- a) Nucleolus
 - b) Inner nuclear membrane
 - c) Nuclear envelope
 - d) None of the above answers
- 10- Heterochromatin is an activate chromatin that is ONLY present in Eukaryotes. (1 pt)
- a) True
 - b) False
- 11- During mitosis, the nucleolus disappears at: (1 pt)
- a) Metaphase
 - b) Anaphase
 - c) Prophase
 - d) Telophase
- 12- While organelles are temporary and vital, inclusions are considered non-living substances (1 pt)
- a) True
 - b) False
- 13- The plasma membrane consists basically of: (1 pt)
- a) Phospholipids embedded in a protein bilayer
 - b) Proteins embedded in a carbohydrate bilayer
 - c) Cholesterol embedded in a phospholipid bilayer
 - d) None of the above answers
- 14- Which of these statements is FALSE: (2 pt)
- a) The number of ATP synthase enzymes is increased thanks to mitochondrial cristae
 - b) Unlike most cell types, nervous cells enter temporarily in G0 phase
 - c) Ribosome is a membranous organelle
 - d) Charged molecules cannot diffuse through the cell membrane
- 15- In metaphase, each pair of sister chromatids is attached to the mitotic spindle at the: (1 pt)
- a) centriole
 - b) centrosome
 - c) kinetochore
 - d) peroxisome
- 16- Ribophorins: (1 pt)
- a) are transmembrane glycoproteins
 - b) provide the attachment site for the ribosome to the rER
 - c) provide the attachment site for the ribosome to the sER
 - d) None of the above answers
- 17- The cleavage furrow: (2 pt)
- a) is formed due to the contractile ring composed of actin filaments
 - b) is a constriction that appears in prophase
 - c) becomes deeper in telophase
 - d) None of the above answers

May success follow your endeavours!