Cell biology - Theory Question bank

2nd Year Date: Time:

Q: Fill Blanks with suitable answers

1-r	neans that cancer cell can invade surrounding tissue, including the bloodstream,
	and spread to other locations.
2-	and form a seal between adjacent cells in tight junction.
3-	All of the enzymes of the lysosome are
4-I	s the process of engulfment large particles such as bacteria.
5-	The enzymes in the cisternae of Golgi body have the ability to modify proteins by the addition of
	carbohydrates and phosphate by the process ofand respectively.
6-	The materials in the nucleus is called
7-i	s the longest cell cycle phase in many cell types
8-	Angiogenesis is
9-	Each ribosome consists of two subunits, one large and one small, each of which is made up of
	plus a large number of
10	- Cell membrane is abilayer with the embedded
11	-Both RNA and protein synthesis in human cells isbut in bacteria is
12	- Shape of red blood cells helps them to
13	- In cell membrane, the function of cholesterol is
14	The interior of the lipid bilayer creates a barrier to the passage
	ofincluding ions.
15	- In normal state, the cytosolic side of the plasma membrane is usually at a charge
	relative to the extracellular side.
16	is a complex network of protein filaments that extends throughout the cytosol of the
	cell.
	are fine fibers, about 7 nm in diameter.
18	- Claudin and occluding form a seal between adjacent cells in
19	- The principal adhesion molecule of adherens junction is
20-	- In stratified epithelial tissue, are abundant, junctions probably make
	the minor contribution.

Q: Write differences between

- 1- Ribosome of prokaryotic and eukaryotic cells
- 2- Cilia and flagella
- 3- Classical and modern cell theory
- 4- Benign and malignant tumor
- 5- Sexual and asexual reproduction
- 6- Primary and secondary lysosomes
- 7- Rough and smooth endoplasmic reticulum

Q: Draw and label the followings

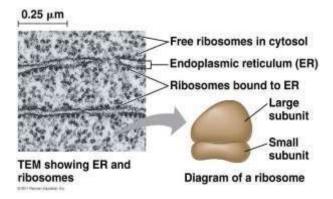
- 1- Pump and channel in the plasma membrane
- 2- Role of mitochondria in apoptosis
- 3- Plasma membrane of the animal cell
- 4- Structure of mitochondrion
- 5- Indirect method of immunohistochemistry
- 6- Phospholipid molecule
- 7- Glycoprotein in cell membrane
- 8- Ingest of bacteria by cells
- 9- Golgi apparatus
- 10-Junctions between cells

Q: Define the following

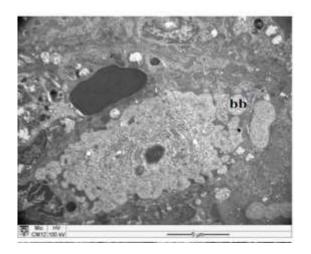
- 1. Fluid mosaic model cell membrane
- 2. Phospholipid
- 3. Cell theory
- 4. Microtubules
- 5. Centrosome
- 6. Cell membrane
- 7. Reproduction
- 8. Cell
- 9. Cytoskeleton
- 10. Desmosome

Q: Depending on image answer the following questions

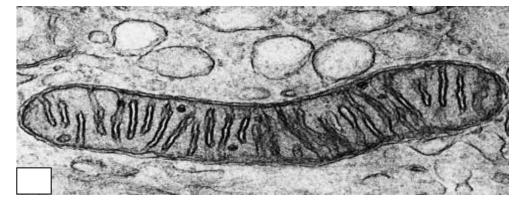
- 1- What is function of this organelle?
- 2- Where is it found in the cell?
- 3- What is composition of it?



Q: Identify type of cell death and define it



Q: Write about membranes of the bellow slide?



Q:	Write about free radicals and mention two examples of free radicals
Q:	Write about function and composition of centrosome
Q:	Write about plasmodesmata
Q:	Write about approximate composition of cell membrane
Q:	Write about fluid mosaic model of cell membrane
Q:	Write about ligand-regulated gates and voltage-regulated gates
Q:	Write about amphipathic molecules
Q:	Write about dark and light area of the electron micrograph
Q:	What are functions of cytoskeleton?
Q:	What gap junction?
Q:	What are types of fermentation?
Q:	What is purpose of using tungsten and vacuum system in TEM?
Q:	What do you know about hypertrophy and hyperplasia?
Q:	What are hemidesmosome?
Q:	What are methods which used in cell counting?
Q:	Is Osmium tetroxide perfect or imperfect fixative and why?
	Which one is acidic medium, outside or inside of lysosome? Why?
	Why inner membrane of mitochondria folded to form cristae?
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Q: Write about phospholipid molecule without figure

Lecturer

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