

2016 / 2017 Total Grade: 50 Instructor Name: Maher Jouda, Belal Shalaby and Manal G el - Astal Student No.: \_\_\_\_\_\_ Student Name: \_\_\_\_\_\_ College Name: كلية الدراسات المتوسطة Dep. / Specialist: تمريض Using Dictionary (No)

**Question One: short note answer (17.5 points)** 

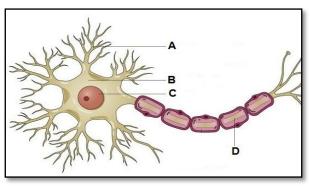
# 1. Write the function of Muscular tissue (2 points) 2. Write the function of the blood (2.5 points)

- 3. List fourgenetic diseases (2 points)
  - a. ....
  - b. ..... c. ....
  - d. .....
- 4. List the formed elements of the blood (1.5 points)
  - a. ..... b. ..... c. ....

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5.	List the types of inheritance	(2 points)		
	a			
	b			
	c			
	d			
6.	Compare between the follow	vings: (5 points)		
#	- Comparison's points	A	В	
	• •			
1.	Number of divisions	Mitosis	Meiosis	
1.	Number of divisions			
	Type of antibody	Blood group A	A Blood group O	
2.	Type of antibody			
2.	Type of antibody	Plasma	Collular elements	
2.	Type of antibody Percentage (%)	Plasma	Cellular elements	
		Plasma	Cellular elements	
3.	Percentage (%)	Plasma Plasma Lysosomes	Cellular elements Peroxisomes	
3.	Percentage (%)			

**University of Palestine** Instructor Name: Maher Jouda, **Course No:** Belal Shalaby and Manal G el - Astal **Course Title: General Biology** Student No.: \_\_ Date: 14/ 1 / 2017 Student Name: \_ No. of Questions: (5) كلية الدراسات المتوسطة : College Name **Final Exam** Time: 2 hours 2016 / 2017 تمريض :Dep. / Specialist Using Calculator (No) **Total Grade: 50** Using Dictionary (No)

### 7. Identify: (2.5 points)



The figure is the structure of.....

### Identify Structure A, B, C, and D

A is ......B is .....

C is.....D is.....

### **Question Two: MatchThe following (5 points)**

The statement		The statement	The system
1. (	)	Protect the body from the outside world and regulate body temperature.	A. Nervous system
2. (	)	The control center of the human body.	B. Lymphatic system
3. (	)	Circulating blood to deliver oxygen and nutrients to every part of the body.	C. Endocrine system
4. (	)	This system consists of bones, cartilage, and joints	D. Respiratory system
5. (	)	This system helps move the body and move materials inside the body	E. Integumentary system
6. (	)	Collection of glands	F. Urinary system
7. (	)	The main function is gas exchange	G. Muscular system
<b>8.</b> (	)	When you eat, your body uses this system to digest food to make energy.	H. Circulatory system
<b>9.</b> (	)	Is part of the circulatory system. Play an important part in the immune system	I. Digestive system
10. (	)	The function is filtration of the blood	J. Skeletal System

### **Question Three: Complete The following(6 points)**

### (Genotype - Ribosomes - Organ - TissueBuilders - Binary Fission - Immunology - Allele -

### **Pentose Sugar - Centromere- Five – Mitochondria– Fertilization**)

- 1. Proteins is commonly known as the.....
- 2. The living organisms divided into .....kingdoms
- **3.** The nucleotide composed of three major Components: Nitrogen base, Phosphate group

and

- **4.** ..... plays important role in protein synthesis
- 5. .....considered as power house of the cell
- 6. Prokaryotes reproduce by a type of cell division called.....

7. ..... holds the two sister chromatides together

- 8. Union between sperm and ovum called.....
- 9. The genetic makeup of an organism called .....
- **10.** .....is an alternative form of a gene.
- **11.** .....consists of several different tissues grouped together.
- **12.** ..... Is the study of the body defenses mechanism.

# University of Palestine

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### Question Four: State which of the following is true (✓) and which is false (✗) (6.5 points)

	#		The statement
1.	(	)	No life can exist without protoplasm
2.	(	)	Nuclear pores occur in the nuclear envelope
3.	(	)	This is only one Golgi complex in the cell
4.	(	)	DNA in bacteria are three chromosomes that consist of a circular DNA and proteins.
5.	(	)	Blood is a fluid connective tissue
6.	(	)	G1 is the shortest phase of cell cycle.
7.	(	)	Glycolysis occurs in mitochondria
8.	(	)	Glycolysis and the krebs cycle produce only 4 ATP molecules per glucose molecule.
9.	(	)	Mitosis produced somatic cells but meiosis produced sperm and ova.
10.	(	)	In blood group system, A allele is dominant to B allele
11.	(	)	Connective tissue supports, protects and binds between other tissues
12.	(	)	DNA Replication occurs during interphase before meiosisI and before meiosisII
13.	(	)	44 + XY is the somatic cell structure of female
0			

### **Question Five: Circle the most correct answer(15 points)**

### 1. The study of transmission of genetic information is:

- a. Morphology
- b. Cytology
- c. Histology
- d. Genetics

### 2. Synthesis of mRNA from DNA is called:

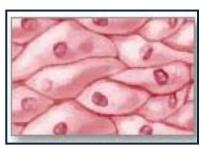
- a. Translation
- b. Transcription
- c. Polypeptide
- d. All of the above

### **3.** The cell that lacks a true nucleus:

- a. Eukaryotic cell
- b. Prokaryotic cell
- c. Fungi
- d. All of the above



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### 4. In the figure, the type of tissue is:

- a. Epithelial tissue.
- b. Connective tissue
- c. Muscular tissue
- d. Neural tissue.

### 5. Function of nucleolus:

- a. Play important role in ribosomes synthesis
- b. Play important role in fat synthesis
- c. Play role in detoxifection of drugs
- d. All of the above

### 6. Consist of eight steps and occurs in matrix of mitochondria:

- a. Glycolysis
- b. Krebs cycle
- c. Electron transport chain
- d. None of the above

### 7. Microtubules, microfilaments and intermediate filaments considered as:

- a. Cytoskeleton system
- b. Respiratory system
- c. Division system
- d. None of the above

### 8. Interphase usually accounts for about .....% of the time during each cell cycle

- a. 10%
- b. 20%
- c. 90%
- d. 50%

## 9. In each generation, meiosis ------ the chromosomes number, fertilization ------the chromosomes number again and mitosis ------that number in every somatic cell.

- a. Reduce, conserves, doubles
- b. Reduce, doubles, conserves
- c. Doubles, reduce, conserves
- d. Conserves, reduce, doubles

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### **10. DNA replicates during:**

- a. G1 phase
- b. S phase
- c. M phase
- d. Cytokines

### 11. Function of the cell membrane:

- a. Maintain the shape of the cell
- b. Protect the cell
- c. Control the exchange of materials between the cell and its surrounded
- d. All of the above

### 12. In the desmosome junction:

- a. Space between two cells is 250 angstrom
- b. Narrow channels communicate the two cells.
- c. Space between two cells is 150 angstrom
- d. No space between cells

### 13. Every NADH in cytoplasm yield.....

- a. 2 ATP
- b. 3 ATP
- c. One ATP
- d. 4 ATP

### 14. "Cytokinesis" refers to.....

- a. division of the nucleus
- b. division of the cytoplasm
- c. reduction in the number of chromosomes
- d. movement of a cell from one place to another

### 15. Reproductive cells (sperm cells and egg cells) have:

- a. 23 chromosomes
- b. 46 chromosome
- c. 50 chromosome
- d. 2 chromosome

### 16. Number of daughter cells after meiosis:

- a. 2 haploid (n) cells
- b. 2 diploid (2n) cells
- c. 4 haploid (n) cells
- d. 4 diploid (2n) cells

### 17. AB blood group is an example of:

- a. Complete dominance.
- b. Incomplete dominance.
- c. Co dominance.
- d. None of the above

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### 18. The inheritance structure of Down syndrome female is:

- a. 44 + XO
- b. 45 + XY
- c. 45 + XX
- d. 44 + XXY

### **19.** Universal donor has a blood group type:

- a. A
- b. B
- c. 0
- d. AB

### 20. Hemolytic disease of the newborn (Erythroblastosis) may result if:

- a. The mother is Rh +ve and the father Rh -ve
- b. Both the mother and father are  $\rm Rh-ve$
- c. Both the mother and father are Rh +ve
- d. An Rh-ve mother carries an Rh+ve fetus

### 21. Abdomen is the cavity:

- a. Above the diaphragm
- b. Which called chest cavity
- c. Below the diaphragm
- d. Both b and c are correct

### 22. The longest cell in human body is:

- a. Neuron
- b. Axon
- c. Soma
- d. Epithelial cell

### 23. Function of platelets is:

- a. Important in defense mechanisms
- b. Important in blood clotting
- c. Important in transport oxygen
- d. All of the above

### 24. When the zygote having two identical alleles for a given trait called:

- a. Homozygous
- b. Heterozygous
- c. Gene
- d. Dominant allele

### 25. Intermediate phenotype produce in:

- a. Incomplete dominance
- b. Complete dominance.
- c. Co dominance.
- d. Multiple allele

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### 26. A person with klinefelter syndrome is a \_\_\_\_\_

- a. Female, xo
- b. Male, xxy
- c. Male, xyy
- d. Female, xxx

### 27. In the first mendel's law the result appear as:

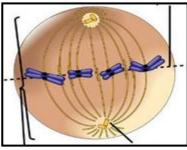
- a. 3:1
- b. 9:3:3:1
- c. 1:1
- d. 2:2:1

### 28. Net equation of formation of acetyl CoA:

a. Glucose in cytoplasm 2 pyruvate + 2ATP + 2(NADH)

### Coenzyme A

- b. 2 Pyruvate  $2 \text{ Acetyl CoA} + 2\text{NADH} + 2\text{CO}_2$
- c. 2 acetylCoA In mitochondrion  $4 \text{ CO}_2 + 6 \text{ NADH} + 2 \text{ FADH} 2 + 2 \text{ ATP}$
- d. 2 acetylCoA  $\xrightarrow{\text{In mitochondrion}}$  5 CO<sub>2</sub> + 10 NADH + 2 FADH2 + 2 ATP



### 29. The phase in the figure is ..... in mitosis:

- a. Prophase
- b. Metaphase
- c. Anaphase
- d. Interphase

### **30.** In eukaryotic cell, transcription occurs in:

- a. The ribosome
- b. The cytoplasm
- c. The nucleus
- d. The lysosome

### Best wishes

Manal, Belal, Maher

للطلبة المتغيبين عن الامتحان النصفياجب عن الاسئلة الاتية

### Circle the most correct answer

### 1. Example of asexual reproduction is / are:

- a. Budding
- b. Binary fission
- c. Sporulation
- d. All of the above

### 2. Two molecules of monosaccharides form a disaccharide such as:

- a. Sucrose
- b. Glucose
- c. Starch
- d. None of the above

### 3. The second X chromosome called

- a. Golgi body
- b. Sex body
- c. Barr's body
- d. Normal body

### 4. The function of smooth endoplasmic reticulum in stomach:

- a. Responsible for storage of fats
- b. Responsible for secretion of HCl
- c. Responsible for muscle contraction
- d. All of the above

### 5. Responsible for cytoplasmic streaming:

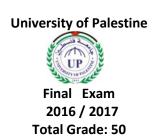
- a. Microtubules
- b. Centrioles
- c. Lysosome
- d. Filaments

### 6. When the carbohydrate molecules linked to lipid called:

- a. Glycolipid
- b. Glycoprotein
- c. Glycolysis
- d. Glucose

### 7. The glycoprotein and the glycolipid form:

- a. Cell membrane
- b. Cell lipids
- c. Cell coat
- d. None of the above



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### 8. In the tight junction:

- a. Space between two cells is 250 angstrom
- b. Space between two cells is 150 angstrom
- c. No space between cells
- d. none of the above

### **Complete The following**

### (Hemidesmosome - Cytoskeleton-Botany - Cell membrane - Fluid mosaic model - Gap -

### Tubulin - Semipermeable - Mitochondrial matrix)

- 1. Microtubules are formed of protein known as.....
- 2. .....Is the compartment enclosed by the inner membrane of mitochondria.
- **3.** All eukaryotic and prokaryotic cells surrounded by.....
- 4. Allows passages of certain materials but not othersmeans.....
- 5. The our present working model of the membrane is.....
- **6.** In ......junction, narrow channels communicate the two cells with each other
- 7. .....Is the science which deals with the study of plant

Best wishes Manal, Belal, Maher