



Department of physiology  
Time allowed: Three hours  
Total marks: 45

Physiology  
MSC of Internal Medicine

Tanta University  
Faculty of Medicine  
Code: MED 8002  
Date: 23 /2/ 2022

**All the questions must be answered:**

- 1- Discuss : Pathophysiology of heart failure. (10 marks)
- 2- Discuss : Factors affecting gas exchange across respiratory membrane . (10 marks)
- 3- Mention functions of : a. Thyroid hormones. (5 marks)  
b. Gall bladder. (5 marks)

**All the following must be answered by only one choice (15 marks)**

1- Sympathetic stimulation could induce:

- |                                |                         |
|--------------------------------|-------------------------|
| a. Miosis.                     | c. Bronchoconstriction. |
| b. Increase gastric secretion. | d. Pupil dilatation .   |

2- Which of the following could induce cyanosis:

- |                      |                        |
|----------------------|------------------------|
| a. Stagnant hypoxia. | c. Histotoxic hypoxia. |
| b. CO poisoning.     | d. Anemic hypoxia.     |

3- Blood group AB is characterized by:

- a. Absence of A and B agglutinin on RBCs.
- b. Presence of alpha and beta agglutinin in plasma.
- c. Presence of A and B agglutinin on RBCs .
- d. It is universal donor.

4- Which of the following Induce coronary vasodilatation :

- |                            |   |
|----------------------------|---|
| a. Vagal stimulation.      | c. Increase cardiac metabolic activity.         |
| b. Muscarinic stimulation. | d. Stimulation of alpha 1 adrenergic receptors. |

5- Which of the following could induce edema:

- |   |                                    |
|---|------------------------------------|
| a. Decrease capillary hydrostatic pressure. | c. Vasoconstriction of arterioles. |
| b. Increase capillary hydrostatic pressure. | d. Increase plasma protein level.  |

6- Which of the following help platelet aggregation in haemostasis:

- |                           |                |
|---------------------------|----------------|
| a. Prothrombin activator. | c. Thrombin.   |
| b. Thromboxan A2.         | d. Fibrinogen. |

7- Which of the following is CORRECT regarding peripheral chemoreceptors:

- |  |   |
|--|---|
| a. Its stimulation induce bradycardia. | c. Mainly stimulated by alkalosis.            |
| b. Mainly stimulated by hypoxia.       | d. Its stimulation decrease respiratory rate. |

**Look to back**

- 8- Pain sensation is characterized by which of the following :
- Its receptors are rapidly adapted .
  - Its receptors are moderately adapted.
  - Its receptors are free nerve endings.
  - Carried by dorsal column of the spinal cord.
- 9- Glucocorticoids could decrease blood level of :
- Free fatty acids.
  - Glucose.
  - Esinophils.
  - RBCs.
- 10- Which of the following is CORRECT regarding referred pain :
- Could explained by dorsal root branching mechanism.
  - Could explained by convergence facilitation mechanism.
  - Never occur with visceral pain.
  - Always occur with cutaneous pain.
- 11- Which of the following could increase heart rate:
- Stimulation to beta 1 adrenergic receptors.
  - Venodilatation.
  - Stimulation to muscarinic receptors.
  - Stimulation to arterial baroreceptors.
- 12- Intrinsic mechanism of blood coagulation is initiated by:
- Contact with rough surface.
  - Injury to blood vessels.
  - Activation of factor X.
  - Activation of factor VII.
- 13- Vasodilatation of arterioles could induce :
- Increase peripheral vascular resistance.
  - Decrease venous return.
  - Decrease central venous pressure.
  - Decrease peripheral vascular resistance .
- 14- Which of the following could induce respiratory alkalosis:
- Restrictive lung disease.
  - Renal failure.
  - Hypoventilation.
  - Hyperventilation.
- 15- Which of the following is CORRECT as regard blood PH:
- Inversely proportionate with arterial  $\text{HCO}_3$ .
  - Directly proportionate with arterial  $\text{PCO}_2$ .
  - Directly proportionate with arterial  $\text{HCO}_3$ .
  - Normally equal 7.1 for arterial blood.

إمتحان الشفهي يوم الثلاثاء 2022/3/ 1 في قسم الفسيولوجي التاسعة صباحا

**Tanta University**

**Faculty of Medicine**

**Department of Medical Biochemistry**

**First Part Examination for Master Degree in Internal Medicine**

**Medical Biochemistry Exam**

**Date: 23/2/2022**

**All questions should be answered**

1. Illustrate the biochemical changes in type 1 diabetes
2. Identify molecules influence obesity
3. Discuss jaundice with highlighting the biochemical changes occur in each type.

Good luck

تنبيه هام : سوف يعقد الإختبار الشفوى بالقسم بعد الإمتحان النظري مباشرة في نفس

اليوم الأربعاء الموافق 2022 /2/23



Questions numbers	Marks
<b>Q1: Give an account on:</b>	<b>(20)</b>
1- Causes and sites of thrombosis.	10
2- Types of pathologic hyperplasia.	5
3- Types of emboli.	5
<b>Q2: Discuss the predisposing factors, gross &amp; microscopic features of HCC.</b>	<b>(10)</b>
<b>Q3: Give an account on:</b>	<b>(15)</b>
1- Types of chronic gastritis.	5
2- Membranoproliferative glomerulonephritis (etiology, pathologic features, immunofluorescence, electron microscopy and prognosis).	10

يعقد الامتحان الشفوي يوم الاثنين الموافق ٢٠٢٢/٣/٧ الساعة العاشرة صباحا بالقسم

*Examination Committee:*

**Prof Dr. Samir Mena**

**Prof. Dr. Zeinab El-Gendy**

**Prof. Dr. Maha Shamlola**

**Prof. Dr. Mona Abd El-Haq**

**Prof. Dr. Ayman El-Saka**

**Ass. Prof. Dr. Asmaa Bedeer**

Examination for Master Degree in: Internal Medicine  
Course Title: Microbiology & Immunology  
Date: 26/ 2 /2022  
Term: 1<sup>st</sup> part  
Time Allowed: 3 hours (with pathology & clinical pathology)  
Total Assessment Marks: 45  
All questions to be answered



Tanta University  
Faculty of Medicine  
Department of Microbiology  
and Immunology

Q1: Enumerate:

- a) Explain Methods used for testing the efficiency of autoclave. (2 marks)
- b) Mechanisms of antimicrobial drug resistance. (3 marks)

Q2: Give short account on the following ( 4 marks each)

- a) Steps of phagocytosis
- b) Applications of monoclonal antibodies
- c) Discuss the mechanism of anaphylactic hypersensitivity reaction

Q3: (3 marks)

COVID-19 is a pandemic disease affecting millions of peoples around world , it is transmitted by droplet infection, according to this mention other routes of disease transmissions then mention main items of droplet based precautions to reduce COVID 19transmission

Q4: (5 marks)

Define Septicemiathen mention the most common organisms isolated from blood cultures of septicemic patient.

Q5: Discuss the following: (5 marks each)

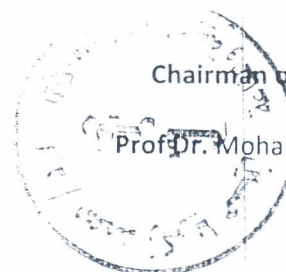
- a) Methicillin resistance Staphylococcus aureus (MRSA)
- b) Clinical forms of Anthrax

Q 6: Discuss the following

- a) Laboratory diagnosis for human influenza virus ( 4 marks )
- b) Indication for vaccination against Hepatitis B virus ( 3 marks )
- c) Laboratory diagnosis of candida infection ( 3 marks )

Chairman of Department

Prof. Dr. Mohammed Zakaria



Tanta University  
Faculty of Medicine

Clinical Pathology Department

26 February 2022



MSC Internal medicine  
Clinical Pathology Department

Total Marks: 45

Time Allowed: 1 Hour

**Give short account on: (7.5 each)**

- 1- Causes of prolonged prothrombin time and/or activated partial thromboplastin time.?
- 2-Laboratory diagnosis of microcytic hypochromic anemia?
- 3- Causes of lymphadenopathy its differential diagnosis?
- 4- Laboratory diagnosis and monitoring of diabetes mellitus
- 5- Hepatitis B serological markers and their interpretations
- 6- Discuss tumor markers of cancer colon?

ملحوظة: لجنة الشفوي يوم الاحد 2022/2/27 في قسم الباثولوجيا الاكلينيكية الساعة العاشرة صباحا

لجنة الممتحنين:

ا.د. محمد عطية

ام.د. رضوي محمود الشرابي

Faculty of Medicine  
Public Health Dept.  
February, 2022  
The exam in 3 pages

Master Degree & Diploma of Internal Medicine  
Public Health & Community Medicine Exam  
Number of Questions: 3  
Time Allowed: 3 Hours  
Total: 45 Marks



**Question I:**

- a. Define surveillance and give short notes on its different types (5 marks)
- b. Enumerate steps of investigating an outbreak (5 marks)
- c. Define screening and calculate sensitivity, specificity, positive and negative predictive values from the following table: (5 marks)

Screening test	Disease		Total
	Positive	Negative	
Positive	95	20	115
Negative	5	180	185
Total	100	200	300

**Question II:**

- a. Enumerate nutritional problems of the elderly, mention how to overcome these problems. (5 marks)
- b. Enumerate causes of obesity and health problems associated with obesity (5 marks)

**Question III: Give one best answer for the following**

(15 marks)

**1. Age, and height are examples of :**

- a. Qualitative variable
- b. Discrete variable
- c. Ordinal variable
- d. Continuous variable

**2. Systolic blood pressure can be presented as**

- a. Numerical variable
- b. Ordinal variable
- c. Binary variable
- d. All of the above

**3. Social class is an examples of**

- a. Qualitative variable
- b. Discrete variable
- c. Ordinal variable
- d. Binary variable

**4. A bar chart can be used to graphically represent**

- a. Educational level of a sample of rural Egyptian women
- b. Contraceptive methods used
- c. Number of children in the sample
- d. All of the above

**5. A histogram can be used to graphically represent**

- a. Discrete variable
- b. Ordinal variable
- c. Binary variable
- d. Continuous variable



**6. Standard deviation is**

- a. Measure of location
- b. Used only when data has extremes of values
- c. Measure of dispersion
- d. Used in morbidity statistics

**7. The Modal age of the following group of diabetics (24 23 25 35 34 45 67 14 26 12) is**

- a. 30.5
- b. 25.5
- c. 45
- d. The data has no mode

**8. The median age of the following group of diabetics (24 23 25 35 34 45 67 14 26 12) is**

- a. 30.5
- b. 25.5
- c. 45
- d. 26.8

**9- Stage of cancer, as a variable, is:**

- a- Qualitative.
- b- Nominal.
- c- Continuous.
- d- None of the above.

**10- Which of the following is not a measure of dispersion?**

- a- The range.
- b- The 50th percentile.
- c- The standard deviation.
- d- The variance.

**11- The most useful measure of dispersion is:**

- a- Range.
- b- Coefficient of variation.
- c- Standard deviation.

d- All of the above.

**12- Which of the following measures is sensitive to extreme values?**

- a- Median.
- b- Mode.
- c- Interquartile range.
- d- Mean.

**13- The standard deviation of a sample of 100 observations equals 8. The variance of the sample equals:**

- a- 8
- b- 10
- c- 64
- d- 49

**14- Select the statement which you believe to be true for a Histogram:**

- a- Can be used instead of a pie chart to display categorical data.
- b- Is similar to a bar chart but there are no gaps between the bars.
- c- Can be used to display only a relative frequency distribution.
- d- Is used to show the relationship between two variables.

**15- The most frequently occurring value of a data set is called the:**

- a- Mode.
- b- Mean.
- c- Median.
- d- None of the above.

**With my best wishes to you**



**INTERNAL MEDICINE ANATOMY EXAMINATION**

**All questions to be answered**

- 1. Describe the external features of the heart. (11 marks)
- 2. Write short essay about each of the following: (Total 11 marks)
  - a. surface anatomy of the liver (5 marks)
  - b. portosystemic anastomosis (6 marks)
- 3. Discuss relations and blood supply of thyroid gland. (8 marks)
- 4. Enumerate muscles derived from first and second branchial arches and mention nerve supply and persistent arteries (7 marks)
- 5. Discuss the arterial blood supply to the spinal cord. (8 marks)



**END OF THE EXAM**

**WITH MY BEST WISHES**

**NB: Oral and Practical Examination: Just after the end of written exam on the s day at 2<sup>nd</sup> floor at Anatomy department**

**Committee of the Exam: Prof. Dr. Amal Halawa, Prof Dr. Mohamed ElSeidy, Prof. Dr. Morsy Abo Elgoud**