

Orthopedic exam for MSc AUGast 2021

Tanta University

Pharmacology Written Examination

Faculty of Medicine

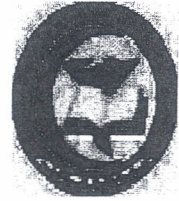
Number of Questions: 4

Pharmacology Department

Time Allowed: 1 Hour

Date: 22/8/2021

Total: 30 Marks



1-Give an account on the following (6 marks):

- a) Bisphosphonates (dynamics, preparations, uses and adverse effects).
- b) Ceftriaxone (kinetics, uses and side effects)

2-Lines of treatment of the following (6 marks):

- a) Acute and chronic gout.
- b) Rheumatoid arthritis.

3-Give reason (3 marks):-

- a) Osteoporosis and glaucoma are contraindications of corticosteroid therapy.
- b) Meropenem is better than imipenem.
- c) Thiazide diuretics are contraindicated in gout.

4- MCQs (15 marks):

1-What is the reason of complicated penetration of some drugs through brain-blood barrier?

- a) High lipid solubility of a drug
- b) Meningitis
- c) Absence of pores in the brain capillary endothelium
- d) High endocytosis degree in a brain capillary.

2-In case of liver disorders accompanied by a decline in microsomal enzyme activity the duration of action of some drugs

is:

- a) Decreased
- b) Enlarged
- c) Remained unchanged
- d) Changed insignificantly.

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3-An agonist is a substance that:

- a) Interacts with the receptor without producing any effect
- b) Interacts with the receptor and initiates changes in cell function, producing various effects
- c) Increases concentration of another substance to produce effect
- d) Interacts with plasma proteins and doesn't produce any effect.

4-Non-narcotic analgesics are all of the following drugs EXCEPT:

- a) Paracetamol
- b) Acetylsalicylic acid
- c) Butorphanol
- d) Ketorolac.

5-Correct the statements concerning ketorolac include all of the following EXCEPT:

- a) It inhibits COX
- b) It is as effective as morphine for a short-term relief from moderate to severe pain
- c) It has a high potential for physical dependence and abuse
- d) It does not produce respiratory depression

6-Which of the following NSAIDs is a nonselective COX inhibitor

- a) Piroxicam
- b) Rofecoxib
- c) Celecoxib
- d) All of the above.

7-Side effects of indometacin include the following:

- a) Abdominal pain, diarrhea, gastrointestinal hemorrhage and pancreatitis
- b) Dizziness, confusion and depression
- c) Trombocytopenia
- d) All of the above.

8-Which of the following statements concerning the anti-inflammatory effect of NSAIDs are TRUE?

- a) Anti-inflammatory effect of NSAIDs results from inhibition of cyclooxygenase
- b) Anti-inflammatory effect of NSAIDs results from inhibition of phospholipase A2 and reducing prostaglandin and leukotriene synthesis
- c) Anti-inflammatory effect of NSAIDs results from induction of cyclooxygenase II expression which results in reducing the amount of an enzyme available to produce prostoglandins
- d) All of the above

9-The following statements about the parathyroid hormone are true, EXCEPT:

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- a) The parathyroid hormone (PTH) is a single-chain peptide hormone composed of 84 amino acids
- b) The parathyroid hormone increases calcium and phosphate absorption in intestine (by increased 1,25-dihydroxyvitamin D3 production)
- c) The parathyroid hormone increases serum calcium and decreases serum phosphate
- d) The parathyroid hormone increases calcium excretion and decreases phosphate excretion in kidneys.

10-Mechanism of action of calcitonin is:

- a) Inhibits hydroxyapatite crystal formation, aggregation, and dissolution
- b) Raises intracellular cAMP in osteoclasts
- c) Activates bone resorption
- d) Inhibits macrophages.

11-Glucocorticoid hormones alter bone mineral homeostasis:

- a) By antagonizing vitamin D-stimulated intestinal calcium transport
- b) By stimulating renal calcium excretion
- c) By increasing parathyroid hormone stimulated bone resorption
- d) By all of the above.

12-Side effect of vitamin D3 is:

- a) Defective bone mineralization
- b) Metastatic calcifications
- c) Hepatic toxicity
- d) Nephrolithiasis.

13- Interactions with other drugs of phosphorus is:

- a) Amiloride: decrease renal excretion
- b) Glucocorticoids: decrease absorption
- c) Loop diuretics: increase renal excretion
- d) Calcitonin: increases renal excretion.

14-Indication for calcium administration is:

- a) Failure of formation of vitamin D in skin
- b) Malabsorption of vitamin D from intestine
- c) Hypercalcemia of malignancy
- d) Vitamin D deficiency.

15-Lincozamides have the following unwanted effect:

- a) Nephrotoxicity
- b) Cancerogenity
- c) Pseudomembranous colitis
- d) Irritation of respiratory organs.

Oral exam at 28/8/2021 at 9 am in pharmacology department

Examination for Master degree in orthopedic
Course Title: Histology
Date: 17/8/2021
Term: August and September
Time Allowed:
Total Assessment Marks: 30 marks



Tanta University
Faculty of Medicine
Department of:
Histology

Answer the following Questions (illustrate your answers with diagrams):

Questions Number	Marks
Q1 – Enumerate membranous and non-membranous organelles and describe the histological structure of one membranous organelle.	6 marks
Q2 –Compare between different types of bone.	6Marks
Q3- Describe histological structure of cartilage cells.	6 Marks
Q4- Write a short note on the histological structure of granular leucocytes?	6 marks
Q5- Describe the histological structure of thyroid gland?	6 marks

NB: The oral exam will be on Wednesday at 11:00 PM.

GOOD LUCK

Examination for Master degree in orthopedic
Course Title: Histology
Date: 17/8/2021
Term: August and September
Time Allowed:
Total Assessment Marks: 30 marks



Tanta University
Faculty of Medicine
Department of:
Histology

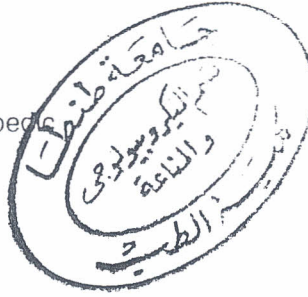
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GOOD LUCK

Examination for MASTER Degree in: Orthopedics
Course Title: Microbiology
Date: 19/08/2021
Term: 1st part
Time Allowed: 1.5 hours
Total Assessment Marks: 30 marks



Tanta University
Faculty of Medicine

1-A 16-year-old boy injures his lower left thigh during a high school football game. The pain associated with this injury is so intense that he has to leave the game. The pain subsides for several hours but returns during the night, and the boy develops chills followed by a fever of 39.5°C. A physician examines him the next morning and notices that the lower left thigh is hot, swollen, and tender. The knee joint appears normal and has a full range of motion. The patient has a temperature 38.3°C. The physician notes several small boils on the boy's neck and chest. Some of these are scarred and crusted, and the patient admits that he has been squeezing them during the past few days. X-rays of the left femur indicate soft tissue swelling without any obvious abnormalities of the bone. (15 marks)

Question 1.1: What is your diagnosis?

Question 1.2: what are the investigations to handle this case?

Question 1.3: What is the probable causative agent?

Question 1.4: How did the patient's bone become infected?

Question 1.5: What is the correct treatment for this disease?

Write short notes on the following :

A) The microbiological investigations you would use in the management of

Acute Septic Arthritis

B) **Graft Rejection**

C) Diagnosis of **Pott's disease** (5 marks each)

GOOD LUCK

oral exam will be held at 30/8/2021 at 9.0 am

Master degree examination in : Orthopedics
Code No., : Ortho 8003
Date: 19/8/2021
Term: August 2021
Time allowed: ** hour
Total assessment marks: 60 marks



Tanta University
Faculty of Medicine
Pathology Department

Questions number

Give short note about:

(10 marks each)

- 1- Acute osteomyelitis
- 2- Embolism (Definition, Types and fate)
- 3- Bone granulomas
- 4- Osteogenic sarcoma
- 5- Methods of spread of malignant tumors
- 6- Dystrophic bone lesions

Good Luck!

Head of Pathology Department
Prof. Maha Shamloula



Tanta University
Faculty of Medicine

Department: Medical Biochemistry

Date: 22/ 8/ 2021

Master of Orthopaedics

Write short assay on the following:

- 1) Biochemical aspect of osteomalacia.
- 2) Biochemical aspect of paget's disease

GOOD LUCK

سوف يتم عقد امتحان الشفوي يوم الاحد الموافق ٢٠٢١/٨/٢٢ الساعة الواحدة ظهرا عقب انتهاء امتحان
التحريري مباشرة



Department of physiology
Time allowed: Three hours
Total marks: 30

Physiology
MSC Orthopedic

Tanta University
Faculty of Medicine
Code: Orth
Date: 22 /8/2021

All the questions must be answered:

- 1- **Discuss** : Mechanism of irreversible shock . (5marks)
- 2- **Mention**: Manifestations of lower motor neuron lesion. (5 marks)
- 3- **State**: Control of secretion of calcitonin hormone. (5 marks)

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

- 1- **Which of the following is function of glucocorticoids:**
 - a. Decrease blood glucose level.
 - b. Decrease plasma level of fatty acids.
 - c. Increase number of RBCs.
 - d. Decrease blood volume .
- 2- **Which of the following is somatic reaction to pain:**
 - a. Increase heart rate.
 - b. hyperalgesia.
 - c. Flexion withdrawal reflex.
 - d. Decrease arterial blood pressure.
- 3- **Which of the following could induce hypoxic hypoxia:**
 - a. Alcohol poisoning.
 - b. CO poisoning.
 - c. Alveo-capillary block.
 - d. Cyanide poisoning.
- 4- **Which of the following contain nicotinic receptors :**
 - a. Heart.
 - b. Lung.
 - c. Adrenal medulla.
 - d. Salivary glands.
- 5- **Stimulation of muscarinic receptors induce:**
 - a. Increase heart rate.
 - b. Increase gastric evacuation.
 - c. Coronary vasodilatation.
 - d. Bronchodilatation.
- 6- **Which of the following stimulate secretion of erythropoietin:**
 - a. Acidosis.
 - b. Alkalosis.
 - c. Estrogen.
 - d. Increase arterial PO_2 .
- 7- **Which of the following could increase venous return:**
 - a. Venodilatation.
 - b. Arteriolar dilatation.
 - c. Positive intrapleural pressure.
 - d. Vasoconstriction to arterioles.

Look to back

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- 8- Which of the following induced by stimulation of alpha 1 adrenergic receptors :
- Increase heart rate .
 - Bronchoconstriction.
 - Vasoconstriction to blood vessels.
 - Bronchodilatation.
- 9- Which of the following could stimulate aldosterone secretion:
- Hypervolemia.
 - Hypoalbuminemia.
 - Increase blood potassium level.
 - Decrease blood potassium level.
- 10- Which of the following is function of heparin :
- Antithrombin.
 - Activate prothrombin.
 - Inhibit activity of platelets.
 - Inhibit activity of vitamin K.
- 11- Which of the following could increase capillary permeability:
- Acidity of blood.
 - Alkalinity of blood.
 - Increase plasma protein level.
 - Increase blood calcium level.
- 12- Increase arterial blood pressure could induce which of the following.
- Increase end diastolic volume.
 - Increase heart rate.
 - Increase secretion of aldosterone.
 - Increase secretion of antidiuretic hormone.
- 13- Which of the following could increase peripheral vascular resistance :
- Anemia.
 - Vasodilatation of arterioles.
 - Increase heart rate.
 - Increase blood viscosity.
- 14- Which of the following could induce metabolic acidosis:
- Restrictive lung disease.
 - Hyperventilation.
 - Hypoventilation.
 - Renal failure.
- 15- Which of the following is CORRECT as regard blood PH:
- Inversely proportionate with arterial HCO_3^- .
 - Directly proportionate with arterial PCO_2 .
 - Normally equal 7.1 for arterial blood.
 - Directly proportionate with arterial HCO_3^- .

إمتحان الشفهي يوم السبت 2021/8/28 في قسم الفسيولوجي التاسعة صباحا