

No. of Printed Pages: 3

Roll No.....

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DEPARTMENT OF PHYSIOTHERAPY
SCHOOL OF NURSING SCIENCES & ALLIED HEALTH**

**BPT 2nd YEAR, ANNUAL EXAMINATION, MAY 2024
PATHOLOGY AND MICROBIOLOGY (THEORY)
PAPER CODE: BPT – 265**

Time: 3 Hours

Maximum Marks: 75 Marks

(Write your Roll No. on top of the paper immediately)

Instructions:

- (i) Attempt Section A - Pathology and Section B - Microbiology in separate main sheets
- (ii) Attempt ALL sections. Choices are mentioned wherever applicable
- (iii) Parts of a question must be answered together.
- (iv) Draw diagrams wherever necessary and Give examples wherever necessary

SECTION A – PATHOLOGY (50 Marks)

PART – I

Multiple Choice Questions (All are compulsory)

(10 × 1 Mark = 10 Marks)

- Q1.** What are the 5 cardinal signs of Inflammation?
a) Caliente, rubarbo, tamar, dola, functioner
b) Caliente, rubor, tumor, dola, functioner
c) Calor, rubor, tumor, dolor, functio laesa
d) Calor, rubarbo, tamar, dolor, functio laesa
- Q2.** Changes in blood flow represent the body's first response to injury. State true or false.
a) True b) False
- Q3.** What is the name of the phenomenon where WBC's marginate and become attached to the edge of the endothelium?
a) Cementing b) Pavementing c) Arrangement d) Adhesion
- Q4.** Dead and dying PMN's admixed with tissue debris form a viscous yellow fluid called what?
a) Xanthochromia b) Pus c) Xanthelasma
- Q5.** A localized collection of pus within an organ or tissue is called an Abscess.
a) True b) False
- Q6.** An ulcer is defined as a defect involving the epithelium, but may extend into the deeper connective tissues as well (ie peptic ulcer). True or false?
a) True b) False
- Q7.** Tuberculosis is the prototype granulomatous disease, as are certain fungal diseases. State true or false.
a) True b) False

Q8. Definition of regeneration

- a) Restoration of structural elements of the tissue of the deceased instead
- b) individual reactions directed at the disturbed structure and to restore function
- c) animal husbandry processes aimed at the survival of the species
- d) The transition from one type of fabric to another

Q9. The following cells are characteristic of granuloma

- a) Giant Cells b) Erythrocytes c) Platelets d) Leukocytes

Q10. What is the basis of apoptosis?

- a) reversible dystrophic changes
- b) cell division with the formation of apoptotic bodies whose phagocytosis subsequently occurs by macrophages
- c) irreversible dystrophic changes
- d) necrobiotic and necrotic processes

PART – II

Answer any **ONE** of the following:

(1 × 10 Marks = 10 Marks)

- Q1.** Describe five different types of immunoglobulins. Explain the role of each type and how they provide an integrated defence against invading pathogens.
- Q2.** Define apoptosis. What are the causes of apoptosis? Write about the biochemical features and mechanisms of apoptosis.
- Q3.** Chemical mediators of acute inflammation and their actions

PART – III

Answer any **TWO** of the following:

(2 × 15 Marks = 30 Marks)

- Q1.** Tuberculosis is a re-emerging disease. Describe the different ways it can be transmitted to humans and which tissues it can involve. Explain the pathological changes which can occur at the macroscopic level in relation to primary pulmonary TB.
- Q2.** What is Type 2 Hypersensitivity? Describe the immunological processes which underlie this condition. Outline the clinical symptoms and signs seen in Myasthenia Gravis and Graves' disease.
- Q3.** Discuss Edema, etiopathogenesis of generalized edema, clinical significance of cerebral and pulmonary edema.
- Q4.** Define anaemia. Classify haemolytic anaemia. Write in detail about the pathogenesis of sickle cell anaemia.

SECTION B – MICROBIOLOGY (25 Marks)

Part – I

MCQs and Short Answer Questions (All are compulsory) (5 × 1 Mark = 5 Marks)

- Q1. Which one of the following mutagens act only on replicating DNA?
a) Ethidium bromide c) Acridine orange
b) Nitrosoguanidine d) None of the above
- Q2. In *Streptococcus faecalis*, the conjugation take place at _____.
a) Pili b) Cell membrane c) Cell wall d) Flagella
- Q3. What disease the Nesser will produce?
a) Mumps b) Rubella c) Measles d) Polio
- Q4. Bacterial transformation was discovered d) by
a) Ederberg and Tatum c) Griffith
b) Beadle and Tatum d) None of these
- Q5. Father of microbiology is
a) Louis Pasteur b) Lister c) A.V. Leeuwenhoek d) Robert Koch

Part – II

Answer any *TWO* of the following:

(2 × 10 Marks = 20 Marks)

- Q1. Describe Hospital induced infections
- Q2. Explain the structure of RNA with the help of a diagram.
- Q3. Explain any three primary Immunodeficiency diseases.
