

# First Year BSc Emergency Medical Technology

**Date:**

**Time: 3 hours**

**Maximum Marks: 70**

## **Paper I**

### **Anatomy/Anatomy and Histology**

Leave first page blank for marks distribution

Draw neat and labeled diagrams wherever necessary

#### **I. Write Essay (Any Two):**

A. Enumerate the components of the male reproductive system. Describe testis under the following headings.

- a) Location.
- b) Coverings.
- c) External and internal features.
- d) Blood supply.

**(3+1+3+6+2=15 Marks)**

B. Describe kidney under the following headings.

- a) Location.
- b) Coverings.
- c) Structures in the hilum.
- d) Relations of right and left kidneys.
- e) Coronal section.

**(1+4+3+4+3=15 Marks)**

C. Answer the following questions based on your knowledge of the anatomy of the heart:

- a) Location.
- b) External features.
- c) Briefly describe the interior of the right atrium.
- d) Blood supply.

**(1+5+4+5=15 Marks)**

#### **II. Write Short Notes (Any Five):**

- A. Tongue.
- B. Thoracoabdominal diaphragm.
- C. Supports of uterus.
- D. Describe the compound epithelium with the help of a diagram and mention examples for each.
- E. Mention the origin, insertion, nerve supply & actions of the deltoid muscle.
- F. Describe the pituitary gland.

**(5 x 5=25 Marks)**

#### **III. Write Short Answers On (Any Five):**

- A. Define any three anatomical planes.
- B. Enumerate the cranial nerves.
- C. Lobes of prostate.
- D. Cartilages of larynx.
- E. Parts of uterine tube.
- F. Parts of sternum.

**(3x5=15 Marks)**

**First Year BSc Emergency Medical Technology**

**Date:**

**Time: 3 hours**

**Maximum Marks: 70**

**Paper - II  
Physiology**

Leave first page blank for marks distribution  
Draw neat and labeled diagrams wherever necessary

**1. Write Essay (Any Two):**

- A. Explain the actions of Insulin in human body. Describe the clinical features and complications of Diabetes Mellitus.
  - B. With the help of a neat labeled diagram explain the mechanism of gastric acid secretion. How is the secretion regulated? Write briefly on gastric mucosal barrier.
  - C. Define blood pressure, give its normal value and explain the short term regulation of blood pressure.
- (15 x 2 = 30 Marks)**

**1. Write Short Notes (Any Five):**

- A. Factors affecting erythropoiesis.
  - B. Neuromuscular junction.
  - C. Hypoxia.
  - D. Functions of middle ear.
  - E. Functions of Cerebrospinal fluid.
  - F. Glomerular filtration rate.
- (5 x 5 = 25 Marks)**

**III. Write Short Answers (Any Five):**

- A. Factors affecting spermatogenesis.
  - B. Functions of placenta.
  - C. Functions of WBC.
  - D. Surfactant.
  - E. Referred pain.
  - F. Errors of refraction in human eye.
- (3 x 5 = 15 Marks)**
-

# First Year BSc Emergency Medical Technology

**Date:**

**Time: 3 hours**

**Maximum Marks: 70**

## **Paper III Biochemistry**

Leave first page blank for marks distribution  
Draw neat and labeled diagrams wherever necessary

### **I. Write Essay (Any Two):**

- A. Name the plasma buffers. Describe the renal regulation of acid-base balance. Add a note on the anion gap. **(3+8+4 =15 Marks)**
- B. What is the normal level of serum calcium? What are the functions of serum calcium? Name the factors that regulate calcium absorption. Describe in detail the hormonal regulation of serum calcium. **(1+6+3+5=15 Marks)**
- C. Enumerate any five differences between fat and water-soluble vitamins. Write the dietary sources, biochemical functions and deficiency manifestations of vitamin C. **(5+2+4+4=15 Marks)**

### **II. Write Short Notes On (Any Five):**

- A. Structure of DNA.
- B. Tumor markers.
- C. Colorimetry.
- D. Discuss the enzymes elevated in liver diseases.
- E. Write the steps of heme synthesis.
- F. Complications of Diabetes mellitus. **(5 x 5 = 25 Marks)**

### **III. Write Short Answers On (Any Five):**

- A. Mitochondria.
- B. Functions of plasma proteins.
- C. Wald visual cycle.
- D. Creatinine clearance.
- E. PUFA.
- F. TCA cycle. **(3 x 5 = 15 Marks)**
-

## First Year BSc Emergency Medical Technology

Date:

Time: 3 hours

Maximum Marks: 70

### Paper IV Microbiology

Leave first page blank for marks distribution  
Draw neat and labeled diagrams wherever necessary

#### I. Write Essay (Any Two):

- A) Define sterilization. Classify moist heat sterilization. Describe the principle, structure and function of the autoclave with neat diagram. (2+3+10= 15 Marks)
- B) Pathogenesis, clinical features, lab diagnosis of HIV. Draw labelled diagram of HIV. (2+3+5+5=15 Marks)
- C) Describe the Lifecycle, Clinical features, lab diagnosis and preventive measures of malaria. (5+3+4+3=15 Marks)

#### II. Write Short Notes On (Any Five):

- G. Pulmonary tuberculosis.
- H. Describe Hospital acquired infections / nosocomial infections.
- I. Innate immunity.
- J. Typhoid fever.
- K. Bacterial cell wall.
- L. Candidiasis. (5 x 5 = 25 Marks)

#### III. Write Short Answers On (Any Five):

- G. Enumerate three sexually transmitted diseases and their etiological agents.
- H. IgG.
- I. Hydatid cyst.
- J. Agents of food poisoning.
- K. Name three subcutaneous mycoses and 3 systemic mycoses.
- L. Name three RNA viruses and three DNA viruses. (3 x 5 = 15 Marks)
-