Sl.No:-9. 7

SC—0886

FIRST YEAR B.Sc. (M.L.T.) DEGREE EXAMINATION, 2000

PRINCIPLES OF PATHOLOGY AND MICROBIOLOGY

(For 1997-98 Batch)

Time : Three Hours Maximum : 80 Marks

Instructions to Candidates :

(1) *Answer Section A and Section B in* **separate** *answer-books.*

(2) *Answers should be specific to the questions.*

(3) *Draw a neat and labelled diagram wherever necessary.*

Section A (Pathology)

(40 marks)

I. Long Essay (Answer any *one*) :

1 Describe in detail the examination of urine.

2 Define and classify fixatives. Describe the methods of preparation of commonly used fixatives.

(1 × 10 = 10 marks)

II. Short Essays (Answer any *four*) :

1 Tests for Bilirubin and Urobilinogen.

2 Maintenance of records and filing of slides.

3 Seman analysis.

4 Reception of specimen and despatch of reports.

5 Dehydration and clearing.

(4 × 5 = 20 marks)

III. Short Answers :

1 Preparation of Haemotoxyline stain.

2 Grossing techniques.

3 Decalcification.

4 Stool examination.

5 CSF cell count and cell type.

(5 × 2 = 10 marks)

Section B (Microbiology)

(40 marks)

I. Long Essay (Answer any *one*) :

1 Define the term Sterilization. Describe the different methods of sterilization by moist heat.

2 Describe in detail the structure and function of Bacterial cell.

(1 × 10 = 10 marks)

Turn over

II. Write short essays on any *four* :

1 Antibiotic sensitivity tests.

2 Enriched media.

3 Spore demonstration.

4 Hot air oven.

5 Dark ground microscopy.

III. Write short answers : (4 × 5 = 20

1 Simmons citrate media.

2 Alberts stain.

3 Sugar fermentation tests.

4 Robertson's cooked meat medium.

5 Ziehl-Neelsen's staining.

(5 × 2 = 10 r

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PHYSIOLOGY AND BIOCHEMISTRY

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(3) *Draw a neat and labelled diagram wherever necessary.*

Section A (Physiology)

(40 marks)

I. Long Essay : Answer any *one* of the following :—

1 Describe the composition, functions and regulation of salivary juice secretion.

2 Describe the Pyramidal tract & a neat diagram.

(10 marks)

II. Write a brief relevant notes on any *four* of the following :—

1 Heart sounds.

2 Inspiratory muscles.

3 Draw a neat diagram of Nephron and label its parts.

4 Cretinism.

5 Actions of Testosterone.

(4 × 5 = 20 marks)

III. Write most appropriate answer for the following :—

1 Name the receptors for vision and hearing.

2 What is the normal value of (i) ESR ; and (ii) PCV in males and females ?

3 What is the normal blood glucose level and blood calcium level ?

4 Name the *two* Gonadotrophin hormones.

5 Mention *four* properties of Cardiac muscle.

(5 × 2 = 10 marks)

Section B (Biochemistry)

(40 marks)

I. Long Essay :

1 Define Carbohydrates. Classify Carbohydrates with suitable examples.

(10 marks)

II. Write short essays on any *four* :

1 Use of Calorimeter in Biochemistry laboratory.

2 What are nucleic acids ?

Turn over

3 Define Homopolysacharide, give an example of animal homopolysacharide.

4 Importance of Henderson-Hesselbach equation.

5 Use of Buffers.

(4 × 5 = 20 marks)

III. Write short answers :

1 Structure of starch.

2 Reducing sugars.

3 How do you prepare 1 molal Sodium Hydroxide ?

4 Colour reactions of peptone.

5 Optical filters.

(5 × 2 = 10 marks)