

APRIL 1991

(Non-Clinical Subjects)

M.Sc. DEGREE EXAMINATION IN THE FACULTY OF
MEDICINE FOR SCIENCE GRADUATES, APRIL 1991.

Branch III — Biochemistry

Final

Paper III — CLINICAL BIOCHEMISTRY

Time : Three hours.

Answer any FIVE questions.

All questions carry equal marks.

1. What are the different serum proteins ? Discuss the significance of different fractions in clinical medicine.
2. Describe the renal function tests.
3. Write short notes on :
 - (a) Reducing substances in urine.
 - (b) Phenyl ketonuria.
 - (c) Galactosemia.
 - (d) Serum Bicarbonate.
4. Comment on the diagnostic uses of
 - (a) Amylase.
 - (b) Blood Ammonia.
 - (c) Serum uric acid.
 - (d) Serum calcium.

5. Describe the synthesis of Thyroid hormones. Discuss the biochemical tests used in the diagnosis of Thyroid disorders.

6. Describe the biochemical tests used in the diagnosis of malabsorption.

7. Discuss the value of serum cholesterol estimation. Discuss the clinical importance of various Lipoprotein fractions.

MARCH 1992

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M.Sc. DEGREE EXAMINATION, MARCH 1992.

(Non-Clinical — Subjects for Science Graduates)

Branch III — Biochemistry — Final

Paper III — CLINICAL BIOCHEMISTRY

Time : Three hours.

Maximum : 100 marks.

Answer any FIVE questions.

All questions carry equal marks.

1. Discuss the usefulness of enzyme estimation in clinical diagnosis.
2. Describe the composition of Cerebrospinal Fluid (CSF) in health and disease.
3. Write notes on :
 - (a) α_1 antitrypsin.
 - (b) 5-HIAA.
 - (c) Serum iron.
 - (d) Creatinine clearance.

4. Describe the Glucose Tolerance Test. What are the indications for this test? Briefly comment on the values obtained in this test.

5. Write briefly on :

- (a) Metabolic Acidosis.
- (b) Respiratory Acidosis.

6. Describe the biochemical tests in the diagnosis of various types of Jaundice.

7. Describe the deficiency manifestations of vitamins.

APRIL 1993

M.SC(NON CLINICAL) DEGREE EXAMINATION

FINAL BR III BIOCHEMISTRY

PAPER III CLINICAL BIOCHEMISTRY

Time: Three hours

Max.marks: 100

Answer ALL questions.

All Questions Carry Equal marks.

1. Describe with examples the concepts and significance of
 - a. Clearance tests
 - b. Tolerance tests
 - c. load tests. (25)
2. How will you investigate a case of suspected porphyria? (25)
3. Describe the various tests available for evaluation of thyroid function. (25)
4. Write notes on:
 1. apolipo proteins
 2. Fractional excretion of sodium
 3. Desgamma carboxy prothrombin
 4. Intra cellular Calcium
 5. Fructosamine (5 x 5 = 25)

NOVEMBER 1993

FR 465

M.Sc. (NON CLINICAL) DEGREE EXAMINATION

FINAL BRANCH III BIOCHEMISTRY

PAPER III CLINICAL BIOCHEMISTRY

Time: Three hours

Max.marks:100

Answer All Questions

All Questions Carry Equal Marks

1. Define inborn errors of metabolism. What are the biochemical methods available to investigate such a case? (25)
 2. How will you establish the nutritional status of the following Vitamins by laboratory methods? (25)
 - a. Riboflavin
 - b. Pyridoxine
 - c. Thiamine
 - d. Ascorbic acid
 3. How will you investigate a case of lipid disorder? Mention the biochemical basis of each investigation. (25)
 4. Write notes on: (5 x 5 =25)
 - a. Glycated proteins
 - b. Troponin
 - c. Southern blotting technique
 - d. Hepatitis markers
 - e. Monoclonal antibodies
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SB 326

APRIL 1995

M.Sc. (Non-Clinical)DEGREE EXAMINATION

FINAL

Branch III BIOCHEMISTRY

Paper III - Clinical Biochemistry

Time: Three hours

Max. Marks: 100

Answer All Questions

1. Describe in detail the laboratory investigations that are carried out in a case of renal calculus. (25)

2. Classify hyperlipo proteinemias .How will you proceed to investigate a suspected case and arrive at diagnosis ? (25)

3. Write short notes on :

- a) Laboratory investigations in porphyrias
- b) Role of tumor markers in diagnosis and prognosis
- c) Estimation of fructosamine and its significance
- d) Methyl malonic aciduria
- e) Recombinant DNA technology

(5 X 10= 50)

APRIL 1997

MP 288

M.Sc.(Non-clinical) DEGREE EXAMINATION

Final - Branch III - Biochemistry

Paper III - CLINICAL BIOCHEMISTRY

Time: Three hours

Max. marks:100

Answer All questions

1. Describe in detail the laboratory investigations that are carried out in a case of renal failure. (25)
2. Classify diabetes mellitus. How will you proceed to investigate a suspected case and arrive at diagnosis? (25)
3. Write briefly on:
 - (a) Biochemical markers in diagnosis
 - (b) Laboratory investigations in a case of Alcaptonuria
 - (c) Respiratory alkalosis
 - (d) Hyperlipoproteinaemias
 - (e) Derangements in cholesterol metabolism.

(5×10=50)

APRIL 2000

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M.Sc. (Non-Clinical) DEGREE EXAMINATION.

Final — Branch III — Biochemistry

Paper III — CLINICAL BIOCHEMISTRY

Time : Three hours

Maximum : 100 marks

Answer ALL questions.

1. a. Classify the various types of jaundice and indicate the various biochemical tests to be done as an aid in their diagnosis. Explain how ammonia is provided for urea cycle and write briefly on various in-born errors associated with this cycle. (25)

2. Discuss in detail the metabolism of a untreated uncontrolled diabetes mellitus patient. What is glucose tolerance test and when is it advised? Explain the various results possible after this test using a diagrammatic plot and give your interpretation. (25)

3. Write briefly on : (5 × 10 = 50)

(a) Role of lungs and kidney in acid base balance

(b) Iron metabolism giving details of its absorption, transport, storage, functions and associated clinical abnormalities

(c) Types of genetic mutation and their consequence

(d) The caloric value of foodstuff and their importance

(e) Lipoproteins giving their composition, synthesis, function and biological role.