APRIL - 1998

[SV 504] **Sub. Code : 4004**

FIRST M.B.B.S. DEGREE EXAMINATION

(Non–Semester)

(Revised Regulations)

Paper V — BIOCHEMISTRY — I

Time : Three hours	Maximum : 50 marks
Two and a half hours for Section A	Section A : 35 marks
	Section C : 15 marks

Section C must be answered separately on the answer sheet provided.

Answer ALL questions.

Draw suitable diagrams wherever necessary.

SECTION A — (35 marks)

1. What is the normal blood sugar level? Describe the mechanisms and factors that regulate blood sugar level. Add a note on Insulin deficiency. (1 + 3 + 3 + 3 = 10)

2. Write briefly on : (5 × 5 = 25)

(a) Functions and deficiency manifestations of Vitamin A.

(b) Components and inhibitors of respiratory chain.

(c) Digestion and absorption of lipids.

(d) Galactosemia.

(e) Basal metabolic rate.

OCTOBER - 1998

[SM 504] **Sub. Code : 4004**

FIRST M.B.B.S. DEGREE EXAMINATION.

(Non–Semester)

(Revised Regulations)

Paper V — BIOCHEMISTRY — I

Time : Three hours — Maximum : 50 marks

Two and a half hours — Section A : 35 marks

for Section A — Section C : 15 marks

Section C must be answered separately on the answer sheet provided

Answer ALL questions.

Draw suitable diagrams wherever necessary.

SECTION A

1. Define the term 'replication', 'transcription' and 'translation'. Describe the steps involved in protein synthesis. (10)

2. Write briefly on : (5 × 5 = 25)

   (a) Electrophoresis

   (b) Functions of immunoglobulins

   (c) Structure of protein

   (d) Interpretation of a glucose tolerance test

   (e) Absorption and transport of Iron.

SG 504] **Sub. Code : 4004**

FIRST M.B.B.S. DEGREE EXAMINATION.

(Non–Semester)

(Revised Regulations)

Paper V — BIOCHEMISTRY — I

Time : Three hours — Maximum : 50 marks

Two and a half hours — Section A : 35 marks

for Section A — Section C : 15 marks

Section C must be anwered separately on the answer sheet provided.

Answer ALL questions.

Draw suitable diagrams wherever necessary.

SECTION A

1. Classify Enzymes. Describe the different types of enzyme inhibition. Add a note on clinical significance of enzymes. (10)

2. Write briefly on : (5 × 5 = 25)

(a) Outline the pathway and significance of gluconeogenesis.

(b) What are Eicosanoids? Discuss the biomedical importance of Arachidonic acid and its derivatives.

(c) Metabolic functions of cyanocobalamine with examples.

(d) Structure of collagen.

(e) Biochemical defect causing acute intermittent porphyria.

October-1999

[KA 504] **Sub. Code : 4004**

FIRST M.B.B.S. DEGREE EXAMINATION.

(Non–Semester)

(Revised Regulations)

Paper V — BIOCHEMISTRY — I

Time : Three hours — Maximum : 50 marks

Two and a half hours for Section A — Section A : 35 marks, Section C : 15 marks

Section C must be answered separately on the answer sheet provided.

Answer ALL questions.

Draw suitable diagrams wherever necessary.

SECTION A — (35 marks)

1. Write the structure, sources, synthesis and clinical importance of cholesterol. (1 + 1 + 4 + 4 = 10)

2. Write briefly on : (5 × 5 = 25)

(a) Types of enzyme inhibition.

(b) Role of bile in the digestion and absorption of dietary lipids.

(c) Write the requirements, deficiency manifestation of Vitamin A.

(d) Mention the functions and coenzymes of Riboflavin.

(e) Basal Metabolic Rate (B.M.R.).

[KB 504] **Sub. Code : 4004**

FIRST M.B.B.S. DEGREE EXAMINATION.

(Non–Semester)

(Revised Regulations)

Paper V — BIOCHEMISTRY — I

Time : Three hours — Maximum : 50 marks

Two and a half hours — Section A : 35 marks

for Section A — Section C : 15 marks

SECTION C must be answered separately on the answer sheet provided.

Answer ALL questions.

Draw suitable diagrams wherever necessary.

SECTION A — (35 marks)

Describe Glycogenolysis. Add a note on the Glycogen storage diseases. (10)

2. Write briefly on : (5 × 5 = 25)

(a) Write the functions and coenzymes of Cobalamin.

(b) Classify enzymes with one example for each

(c) Schematically represent the electron transport chain. Indicate the sites of ATP generation and inhibitors at these sites.

(d) Porphyrias.

(e) Specific Dynamic Action (SDA).

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[KB 504 A] **Sub. Code : 4055**

FIRST M.B.B.S. DEGREE EXAMINATION.

(Non–Semester)

(Revised Regulations)

Paper V — BIOCHEMISTRY — I

Time : Three hours — Maximum : 100 marks

Two and a half hours for Sec. A & Sec. B — Sec. A & Sec. B : 70 marks

Section C : 30 marks

Separate answer books must be used for Sections A and B.

Section C must be answered separately on the answer sheet provided as per the instructions on the first page.

Draw diagrams wherever necessary.

Answer ALL questions.

SECTION A

1. Describe the hexose monophosphate shunt pathway. What is the significance? (15)

2. Write short notes on : (4 × 5 = 20)

(a) What are the sources and biochemical functions of pyridoxine?

(b) Isoenzymes.

(c) Unconjugated hyperbilirubinemias.

(d) Hyperlipo protenemia.

SECTION B

3. Name ketone bodies. Enumerate the steps in the synthesis of ketone bodies. How are they metabolised? Explain the biochemical basis and consequence of excess production of ketone bodies in Diabetes mellites and starvation. (15)

4. Write short notes on :

(a) Biochemical role and deficiency manifestations of Vitamin 'C'.

(b) Components of Electron Transport Chain.

(c) Allosteric Enzymes.

(d) Metabolism of very low Density lipoproteins.

(4 × 5 = 20)

OCTOBER - 2000

K.C.504 Sub.code 4004

FIRST M.B.B.S. DEGREE EXAMINATIONS.

(Non-semester)
(Revised Regulations)

Paper v – BIOCHEMISTRY – I

Time: Three hours
Two and a half hours
For Section A

Maximum : 50 marks
Section A : 35 marks
Section C : 15 marks

Section C must be answered separately
On the answer sheet provided

Answer ALL questions.

Draw suitable diagram wherever necessary

Section A – (35 marks)

1. Discuss the co-enzyme functions of Riboflavin, Niacin, Folic Acid, Pantothenic Acid and Biotin. (10 marks)

2. Write briefly on: (10 x 2 ½ = 25)

a) Ketogenesis and its clinical significance.
b) Key (important) reactions of gluconeogenesis
c) Effect of substrate concentration on
   (i) Enzyme catalyzed reaction and
   (ii) Michaelis Menten Equation
d) The sources and biochemical fuctions of pyridoxine
e) Isoenzymes
f) Metobolism of very low density lipoprotein
g) Unconjaugated hyper bilirubinemia
h) Alloestric enzymes
i) Electron transport chain
j) Metabolic acidosis