

5/H-64 (vi) (Syllabus-2015)

2017

(October)

BIOCHEMISTRY

(Honours)

(Nutritional and Clinical Biochemistry)

(BCHEM-502)

Marks : 56

Time : 3 hours

*The figures in the margin indicate full marks
for the questions*

Answer **four** questions, taking at least **one**
from each Part

PART—A

1. (a) Discuss the nutritive and physiological
roles of proteins and fats. $3\frac{1}{2}+3\frac{1}{2}=7$
- (b) Describe the biological roles of any *two* of
the following : $3\frac{1}{2}\times 2=7$
- (i) Vitamin A
 - (ii) Iron
 - (iii) Vitamin C

(2)

2. (a) Define BMR. Describe the methods by which BMR can be measured. 2+5=7
- (b) What is RDA? Discuss the nutritive values of various foods. 2+5=7
3. (a) What is overnutrition? Discuss its implication and prevention. 2+5=7
- (b) Discuss the cause and prevention of protein-calorie malnutrition. 7

PART—B

4. (a) Discuss the significances of clinical biochemistry in diagnosis of diseases. 10
- (b) What are the advantages of automated procedures over manual procedure in clinical diagnostics? 4
5. (a) Describe the procedure involved in the collection and preservation of plasma and CSF. $3\frac{1}{2}+3\frac{1}{2}=7$
- (b) How can biochemical analysis of urine sample be used for diagnostic purpose? 7

8D/290

(Continued)

(3)

6. (a) What are isoenzymes? Discuss their relevance in clinical diagnosis. 2+5=7
- (b) Discuss the clinical significances of the following enzymes : $3\frac{1}{2}+3\frac{1}{2}=7$
- (i) Lactate dehydrogenase
- (ii) SGOT
7. (a) Discuss the parameters associated with the following : 5+5=10
- (i) Liver function test
- (ii) Kidney function test
- (b) Discuss the factors and outcome associated with hyper- and hypo-glycemia. 4

8D—300/290

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