

Roll No. :

Total No. of Questions : 11]

[Total No. of Printed Pages : 3

BPG-1118

M.Sc. (Previous) Examination, 2021

HOME SCIENCE

(Food and Nutrition)

Paper-III

(Advanced Nutritional Biochemistry)

Time : 1½ Hours]

[Maximum Marks : 75

Section-A

(Marks : 2 × 10 = 20)

Note :- Answer all *ten* questions (Answer limit **50** words). Each question carries **2** marks.

Section-B

(Marks : 5 × 5 = 25)

Note :- Answer all *five* questions. Each question has internal choice (Answer limit **200** words). Each question carries **5** marks.

Section-C

(Marks : 10 × 3 = 30)

Note :- Answer any *three* questions out of five (Answer limit **500** words). Each question carries **10** marks.

Section-A

2 each

1. (i) What is Reichert-Meissl number ?
- (ii) Structure of Glucose

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- (iii) Composition of Haemoglobin
- (iv) What are Purines ?
- (v) Role of Glucagon hormone
- (vi) Structure of Cynocobalamine
- (vii) What are Isoenzymes ?
- (viii) Oxidative phosphorylation
- (ix) Ketosis
- (x) Phenylketonuria

Section-B

5 each

2. Explain hormonal control of Carbohydrate Homeostasis.

Or

Rancidity of fats.

3. Denaturation of proteins.

Or

Genetic Mutation.

4. Explain the biochemical role of B-complex vitamin-Thiamine.

Or

Write in short about Thyroxine.

5. Enzymes in clinical diagnosis.

Or

Mitochondrial transport system.

6. What is Glycogenolysis ?

Or

Symptoms of maple syrup urine disease.

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Section–C

10 each

7. What do you understand by Dietary Fibre ? Explain the composition, physiological effects and recommended levels of dietary fibre.
8. Explain with reference to proteins :
 - (i) Hormonal control of protein metabolism
 - (ii) Evaluation of protein quality
9. Explain the biochemical role of any *two* fat soluble vitamins.
10. Explain Enzyme kinetics.
11. Explain of the following :
 - (i) Glycolysis
 - (ii) Urea cycle