

UUCMS No.

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**B.M.S COLLEGE FOR WOMEN
BENGALURU**

III SEMESTER END EXAMINATION

**B.Sc -CND: Nutritional Biochemistry
(NEP Scheme 2021-22 onwards)**

Course Code: CND3DSC09

Duration: 2½ Hours

QP Code: 3043

Max. Marks: 60

Instructions: All parts are compulsory

PART - A

I. Answer any four of the following

(4×2=8)

1. Define metabolism.
2. What is gluconeogenesis.
3. Represent the transamination reaction of an amino acid.
4. What are lipoproteins. Give one example.
5. Mention the biochemical functions of Vitamin E.
6. Name the mineral essential for oxygen binding in hemoglobin and antioxidant enzyme.

PART - B

II. Answer any four of the following

(4×5=20)

1. Write the conversion of pyruvate to lactate and ethanol. What is the number of ATP formed in anaerobic glycolysis?
2. Draw the schematic representation of glycogenolysis.
3. Differentiate between ketogenesis and ketosis.
4. Enumerate the role of lipoprotein in diseases.
5. Mention the role of potassium and sodium in the system.
6. Explain the mechanism of absorption of Vitamin C.

PART - C

III. Answer any four of the following

(4×8=32)

1. Explain the steps involved in Krebs's cycle.
2. Discuss oxidative and non-oxidative phases of HMP shunt/pentose phosphate pathway.
3. a) Write any four functions of cholesterol.
b) Explain the mevalonate synthesis in cholesterol metabolism.
4. a) Elucidate β -oxidation of fatty acids.
b) Write a note on urea cycle.
5. a) Describe the role of Vitamin D in calcium absorption.

- b) State the biochemical functions of phosphorus.
- 6. a) Discuss iodine metabolism.
- b) Mention any four biochemical functions of Vitamin B12 in the body.

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