

Roll No.

The Assam Royal Global University

Royal School of Nursing

B.Sc. Nursing -2<sup>nd</sup> Semester

Semester End Examination June 2024

Course: Applied Biochemistry and Applied Nutrition and Dietetics

Code: BICO 135 & NUTR 140

Time: 3 hours

Maximum Marks: 75

Attempt all questions as per instructions given  
The figures in the right-hand margin indicate marks

**Section-A (Applied Biochemistry)**

**Q1. Choose the correct answer**

**4x 1=4**

I. The product of the anaerobic phase of glycolysis is

- a) Acetyl CoA
- b) Pyruvic acid
- c) Lactic acid
- d) Phosphoenol pyruvate

II. One of the following is not carried by chylomicrons.

- a) Glycerol
- b) Cholesterol ester
- c) Triacylglycerol
- d) Phospholipid

III. Which of the following is the yellowish product of normal RBCs catabolism?

- a) Bilirubin
- b) Biliverdin
- c) Spleen
- d) Liver
- e)

IV. Multiple forms of the same enzyme are called

- a) Coenzyme
- b) Apoenzyme
- c) Isoenzyme
- d) Isomerases

**Q2. Answer any three of the following.**

**3x 5 =15**

- a) Define glycolysis. explain the 10 steps of glycolysis.
- b) Define jaundice. Distinguish between liver profile of hepatocellular injury and cholestasis.

- c) Write details about protein digestion.
- d) Define LFT. Classify the different LFT tests based on laboratory findings.

**Q. 3. Answer any three of the following.**

**3x 2=6**

- a) Write the steps involved in the degradation of heme.
- b) Explain the structure of immunoglobulin with a diagram.
- c) Classify the types of lipids with examples.
- d) What is OGTT? Write the Steps of OGTT in short.

**Section-B (Applied Nutrition and Dietetics)**

**Q1. Choose the correct answer:**

**8 X 1= 8**

I. Full form of SAM is

- a. Severe Acute Malnutrition
- b. Severe Acute Metabolism
- c. System analysis malnutrition
- d. Standardized assessment method

II. The Main Function of protein is

- a. Body building
- b. Energy giving
- c. Boost immunity
- d. Protective

III. Cereal is a source of

- a. Carbohydrate
- b. Fat
- c. Proteins
- d. Minerals

IV. Example of macro minerals is-

- a. Zinc
- b. Copper
- c. Calcium
- d. Iron

V. Vitamin D is also known as-

- a. Calciferol
- b. Tocopherol
- c. Retinol
- d. Cobalamin

VI. The Prevention of Food Adulteration Act was implemented in

- a. 1963
- b. 1986
- c. 1954
- d. 1992

VII. Deficiency of folic acid leads to -

- a. Anemia
- b. Beriberi
- c. Scurvy
- d. Dementia

VIII. The Full form of FSSAI is

- a. Food Safety and Standards Agency of India
- b. Food Safety and Standards Authority of India
- c. Food Standards and Safety Authority of India
- d. Food Security and Standards Authority of India

**Q2. Answer *any one* of the following:**

**1 X 10= 10**

- a) Plan a diet for 32 years 32-year-old male, height 157cm and weight 90kg who has hypertension, fatty liver, and fatty pancreas. He is also having severe gastritis. Also, calculate the BMI.
- b) Plan a diet for 70 years old male, height 148cm and weight 90kg who is having Chronic Kidney Disease Stage 5 along with Type II Diabetes Mellites. Also, calculate the BMI.

**Q3. Write short notes (*any four*).**

**4 X 5= 20**

- a) Explain the steps of preparing balanced diet.
- b) Explain the vitamins deficiency disorders.
- c) What do you mean by food guides? Explain.
- d) Mention the uses of RDA.
- e) Describe the classification of Carbohydrate.

**Q4. Attempt all the following:**

**6 X 2= 12**

- a) What do you mean by meal planning?
- b) Define PEM.
- c) Write down the symptoms of vitamin iron.
- d) How to prevent vitamin B deficiency?
- e) What do you mean by ICDS?
- f) Mention a few nutrition problems in India.