B.Sc. Nursing Second Semester Feb.- March Examination-2026 **Code/M/319**

Subject – Applied Biochemistry and Applied Nutrition & Dietetics

[Time: 03:00 Hrs.] [Max. Marks: 75]

Section-A (Applied Biochemistry)

Marks: 25 Marks

1. Short answer question (any 3) (5x3=15)
   (a) Explain Kreb's cycle. Describe energy produced (ATP molecules) during the process.
   (b) Explain the regulation of blood pH.
   (c) Explain the digestion and absorption of protein.
2. Very short answer questions – (2x3=6)
   (a) Explain any two cardiac enzymes (b) ELISA (c) What is OGTT and enlist its indications.
3. MCQ – (1x4=4)
   (a) Normal range of S.cholestrol is
   (i) 100-125 mg/dl (ii) 130-159 mg/dl (iii) 160-189 mg/dl (iv) 200-229 mg/dl
   (b) Presence of protein in urine is called
   (i) Bilirubinuria (ii) Ketonuria (iii) Glucosuria (iv) Proteinurea
   (c) Anaerobic glycolysis takes place in the absence of
   (i) Water (ii) ATP molecules (iii) Oxygen (iv) Carbondioxide
   (d) Citric acid cycle is also called
   (i) Kreb's cycle (ii) Urea cycle (iii) Metabolic cycle (iv) Visual cycle

Section-B (Nutrition & Dietitics)

Marks: 50 Marks

1. Discuss the nutritional problems in India. Write about the National Nutritional Policy and list out the National Nutritional Programmes in India. (10)
2. Short answer question (any 4) (5x4=20)
   (a) Classification of food (b) Classification of vitamins (c) Food preservation methods
   (d) Prevention of Food Adulteration Act (e) Therapeutic Diet (f) Cooking methods
3. Define the following (any 6) (2x6=12)
   (a) Balance diet (b) Nutrition (c) Basal metabolic rate (d) Obesity
   (e) Diarrhea (f) Malnutrition (g) Protein (h) Anemia
4. MCQ – (1x8=8)
   (a) A substance needed by the body for growth energy, repair and maintenance is called
   (i) Nutrient (ii) Carbohydrate (iii) Calorie (iv) Fatty acids
   (b) A diet high in saturated fats can be linked to which of the followings
   (i) Kidney failure (ii) Bulimia (iii) Anorexia (iv) Cadiovascular disease
   (c) Amylases in saliva begin the breakdown of carbohydrates into
   (i) Fatty acids (ii) Polypeptides (iii) Amino acids (iv) Simple sugars
   (d) Your body needs vitamins and minerals because
   (i) They give the body energy (ii) They help carry out metabolic reaction
   (iii) They insulate the body organs (iv) They withdraw heat from the body
   (e) About half of your diet should be made up of
   (i) Grains and vegetables (ii) Fruits and milk (iii) Milk and chees (iv) Fats and sugar
   (f) Unit of energy is
   (i) RDA (ii) Calories (iii) Pyramid (iv) Label
   (g) Citrus fruits are an excellent source of
   (i) Calcium (ii) Vitamin C (iii) Vitamin B (iv) Calories
   (h) Which of the following nutrients is known as the sunshine vitamin?
   (i) Vitamin E (ii) Vitamin A (iii) Vitamin K (iv) Vitamin D

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