

**BACHELOR OF SCIENCE (NURSING) (2019 COURSE)**

**F. Y. B. Sc. (Nursing) : : SUMMER - 2022**

**SUBJECT : NUTRITION & BIOCHEMISTRY**

Day : Wednesday  
Date : 01-06-2022

**S-22422-2022**

Time : 10:00 AM-01:00 PM  
Max. Marks : 75

**N.B.:**

- 1) All questions are **COMPULSORY**.
- 2) Figures to the right indicate **FULL** marks.
- 3) Answers to both the sections should be written in **SEPARATE** answer book.

**SECTION-I (NUTRITION) (45 Marks)**

**Q.1** Write short notes on any **SIX** of the following: **(12)**

- a) Define nutrients.
- b) Artificial feeding.
- c) List down four macro minerals.
- d) List down the rich sources of vitamin C.
- e) Define Beriberi.
- f) Define food pyramid.
- g) Define toxicity in foods.
- h) List down the types of food preservation.

**Q.2** Write short answers on any **FIVE** of the following: **(20)**

- a) Discuss different cooking methods.
- b) Explain the functions of carbohydrates.
- c) Describe regulation of water in the body.
- d) Write a note on food adulteration.
- e) Explain role of nurse in planning therapeutic diet.
- f) Discuss menu planning for the elderly.
- g) Describe metabolism and deficiencies of proteins.

**Q.3** Write long questions on any **ONE** of the following: **(13)**

- a) Define Lipids. **(02)**
- b) Discuss functions of lipids. **(05)**
- c) Classify food groups according to nutritive value. **(06)**

**OR**

**Q.3** a) Define basal metabolic rate (BMR). **(02)**  
b) Explain factors affecting basal metabolic rate. **(05)**  
c) Discuss Vitamin A deficiency programme. **(06)**

**SECTION-II (BIOCHEMISTRY) (30 Marks)**

**Q.4** Write short answers on any **FOUR** of the following: **(08)**

- a) Competitive inhibition of enzymes.
- b) Write a note on essential fatty acids.
- c) Sodium- Potassium pump
- d) Functions of Golgi complex.
- e) Facilitated diffusion.
- f) Deficiency symptoms of Vitamin D.

**P. T. O.**

- Q.5** Write short answers on any **THREE** of the following: **(12)**
- a) Discuss various factors affecting enzyme activity.
  - b) Describe Watson and Crick model of DNA.
  - c) Describe role of lungs in the maintenance of acid-base balance.
  - d) Fluid-mosaic model of cell membrane.
  - e) Describe structure and classification of immunoglobulins.

- Q.6** Write long questions on any **ONE** of the following: **(10)**
- a) Describe beta-oxidation of fatty acids. **(07)**
  - b) Mention number of ATPs formed by oxidation of palmitic acid by beta-oxidation. **(03)**

**OR**

- Q.6** a) Describe in detail about TCA/ Krebs cycle? **(06)**
- b) Describe energetics and regulation of the TCA cycle. **(04)**

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