



BRAINWARE UNIVERSITY

Term End Semester Examinations, Jan- 2023

Programme – Bachelor of Science in Nursing

Course Name – Applied Biochemistry & Applied Nutrition and Dietetics

Course Code – BIOC 135 & NUTR 140

(Semester – II)

Time allotted: 3 hrs.

Full Marks: 75

[The figure in the margin indicates full marks. Candidates are required to give their answers in their own words as far as practicable. Write answer of Section – A and Section –B in separate Answer booklet.]

Section – A

(Applied Biochemistry)

Marks - 25

Group – A (Multiple Choice Question)

4 x 1 = 4

1. *Select the correct answer of the following :-*

- i) The most important buffer present in RBC is:

a Bicarbonate	b Protein
c Phosphate	d Hemoglobin
- ii) Glycolysis occurs in:

a Cytosol	b Mitochondria
c Nucleus	d Lysosome
- iii) Ketone bodies are produced mainly in:

a Brain	b Liver
c Erythrocytes	d Skeletal muscles
- iv) All of the 20 amino acids are optically active; except:

a Phenylalanine	b Serine
c Lysine	d Glycine

Group – C (Short answer type question)

3 x 5 = 15

(Answer Any Three Questions)

2. Add a short note on Urea cycle [5]
3. Write a short note on Acidosis [5]
4. Write a short note on atherosclerosis [5]
5. Write a short note on Gluconeogenesis [5]

Group – D (Very short answer type question)

3 x 2 = 6

(Answer Any Three Questions)

6. Write down the function of proteins. [2]
7. Add a very short notes on Hypoglycemia. [2]
8. List down the classification of fatty acid. [2]
9. Mention the causes of proteinuria. [2]

Section – B

(Applied Nutrition & Dietetics)

Marks - 50

Group – A (Multiple Choice Question)

8 x 1 = 8

10. *Select the correct answer of the following :-*

- i) Which of the following is a micro-nutrient?

a Fats	b Vitamins
c Proteins	d Carbohydrates
- ii) Kwashiorkor is due to the deficiency of

a Vitamin A	b Protein
c Fat	d All of the above
- iii) What are the small units of protein called?

a Carbon	b Oxygen
c Amino acids	d Nitrogen
- iv) What is the active form of Vitamin D?

a Retinol	b Niacin
c Beta-carotene	d Calcitriol
- v) Which of the following is required as a component of blood hemoglobin?

a Iron	b Copper
c Calcium	d Magnesium
- vi) Inflammation and cracking of skin at the corners of the mouth is ;

a Rickets	b Pellagra
c Scurvey	d Cheilosis
- vii) Cooking food in a liquid with a temperature just below boiling is known as;

a Star frying	b Steaming
c Simmering	d Blanching

- viii) The basal metabolic rate (BMR) is defined as
- | | | | |
|---|---|---|--|
| a | A measure of the rate at which a person's body burns calories while at rest | b | A person's metabolic rate before going on a diet |
| c | The best calorie- burning rate that a person can achieve | d | All of the above |

Group – B (Essay/ Long answer type question)

1 x 10 = 10

(Answer Any One Question)

- | | |
|---|-----|
| 11. Define cooking; explain the principles of cooking. | 2+8 |
| 12. What are the water soluble vitamins? Briefly write about the functions of each water- soluble vitamins. | 5+5 |

Group – C (Short answer type question)

4 x 5 = 20

(Answer Any Four Questions)

- | | |
|---|-----|
| 13. Mid – Day Meal scheme | [5] |
| 14. What are the functions of vitamin C. | [5] |
| 15. Protein energy malnutrition | [5] |
| 16. Iron deficiency. | [5] |
| 17. Body mass index and basic metabolism. | [5] |

Group – D (Very short answer type question)

6 x 2 = 12

(Answer Any Six Questions)

- | | |
|--|-----|
| 18. Basal metabolic rate | [2] |
| 19. Balance diet | [2] |
| 20. Post operative diet and its importance | [2] |
| 21. Food additives | [2] |
| 22. Plant and animal sources of proteins | [2] |
| 23. Food sources of carbohydrates | [2] |
| 24. Essential fatty acids | [2] |