



## BRAINWARE UNIVERSITY

**Term End Examination 2023-2024**  
**Programme – B.Optomtry-2023**  
**Course Name – General Biochemistry**  
**Course Code - BOPTOC103**  
**( Semester I )**

**Full Marks : 60**

**Time : 2:30 Hours**

[The figure in the margin indicates full marks. Candidates are required to give their answers in their own words as far as practicable.]

### Group-A

(Multiple Choice Type Question)

1 x 15=15

1. Choose the correct alternative from the following :

- (i) Select the primary function of Vitamin K:
- |                       |                      |
|-----------------------|----------------------|
| a) Healthy skin       | b) Blood clotting    |
| c) Collagen synthesis | d) Energy metabolism |
- (ii) Name the carbohydrate that is commonly found in dairy products like milk and yogurt.
- |            |             |
|------------|-------------|
| a) Maltose | b) Lactose  |
| c) Sucrose | d) Fructose |
- (iii) In polysaccharide, name the bond by which monosaccharide are joined
- |                    |                  |
|--------------------|------------------|
| a) Peptide bond    | b) Glucose bond  |
| c) Glycosidic bond | d) Covalent bond |
- (iv) Iron (Fe) plays a vital role in the body by: \_\_\_\_\_. Select the correct answer.
- |                              |                                 |
|------------------------------|---------------------------------|
| a) Regulating blood pressure | b) Carrying oxygen in the blood |
| c) Maintaining bone density  | d) Supporting immune function   |
- (v) Pick the example of epimers
- |                         |                          |
|-------------------------|--------------------------|
| a) Glucose and Ribose   | b) Glucose and Galactose |
| c) Glucose and fructose | d) Ribose and Mannose    |
- (vi) Unsaturated fatty acids contain: \_\_\_\_\_. Pick the correct answer.
- |   |  |
|---|--|
| a) Only single bonds between carbon atoms | b) Both single and double bonds between carbon atoms |
| c) No carbon atoms                        | d) Only triple bonds between carbon atoms            |
- (vii) Selenium (Se) is important for the proper functioning of \_\_\_\_\_. Select the correct answer.
- |             |                  |
|-------------|------------------|
| a) Liver    | b) Heart         |
| c) Pancreas | d) Thyroid gland |
- (viii) Identify the mineral that is essential for maintaining proper nerve and muscle function and is often found in bananas and potatoes.
- |                |                  |
|----------------|------------------|
| a) Sodium (Na) | b) Potassium (K) |
|----------------|------------------|



12. Classify amino acids on the basis of presence of different types of R groups with examples (5) in each case.

**OR**

Diagrammatically illustrate the condensation and hydrolytic reaction of peptide bond. (5)

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