

**BACHELOR OF PHYSIOTHERAPY
SECOND SEMESTER
BIOCHEMISTRY
BPT – 205**

[USE OMR SHEET FOR OBJECTIVE PART]

Duration: 3 hrs.

Full Marks: 70

Time: 30 min.

Marks: 20

(Objective)

Choose the correct answer from the following: **$1 \times 20 = 20$**

1. The process in which the separated complementary DNA strands can form a double helix
 - a. Renaturation
 - b. Denaturation
 - c. Configuration
 - d. Genetic information.
2. Examples of Disaccharides
 - a. Maltose, lactose, sucrose
 - b. Maltose, lactose, trehalose
 - c. Maltose, glucose, galactose
 - d. Maltose, lactose, glucose
3. Examples of Monosaccharides
 - a. Glucose, Fructose
 - b. Sucrose, maltose
 - c. Galactose, sucrose
 - d. Trehalose, sucrose
4. Which fat soluble vitamin is synthesized in the skin upon exposure to sunlight
 - a. Vit A
 - b. Vit C
 - c. Vit E
 - d. Vit D
5. What is the scientific name for vitamin A?
 - a. RETINOL
 - b. THIAMINE
 - c. RIBOFLAVIN
 - d. NIACIN
6. Vitamin E is known for its role as
 - a. Antioxidant
 - b. Bone growth regulator
 - c. Blood-clotting factor
 - d. Pigment synthesizer
7. Name the sulfur containing essential amino acid
 - a. Cysteine, cystine, and methionine
 - b. Valine, leucine and isoleucine
 - c. Serine, threonine and tyrosine
 - d. Tyrosine and tryptophan
8. Which term used to represent the deterioration of fats and oils resulting in an unpleasant taste
 - a. Rancidity
 - b. Antioxidants
 - c. Saponification
 - d. Lipid peroxidation
9. The sudden infant death syndrome (SIDS) is due to the deficiency of
 - a. Acyl CoA dehydrogenase
 - b. Acyl CoA synthetase
 - c. Thiokinases
 - d. Ketoacyl CoA thiolase

10. Examples of reducing disaccharides
a. Sucrose
c. Lactose
b. Trehalose
d. Glucose

11. Amino acids which are highly basic in character.
a. Tyrosine, Tryptophan
c. Methionine, Leucine and Isoleucine
b. Lysine, Arginine and Histidine
d. Serine, Threonine and Tyrosine

12. Gelatin is an example of
a. Incomplete protein
c. Complete protein
b. Partially incomplete protein
d. Derived protein

13. What does polydipsia mean?
a. Excessive thirst
c. Frequent urination
b. Extreme hunger
d. None of the above

14. Which of the following is not a fat-soluble vitamin?
a. Vitamin A
c. Vitamin D
b. Vitamin B
d. Vitamin E

15. Which one of the following is the structural protein
a. Keratin
c. Actin
b. Hemoglobin
d. Insulin

16. Hydroxyl group containing amino acid
a. Serine
c. Valine
b. Lysine
d. Leucine

17. The Imino acid found in protein structure
a. Valine
c. Proline
b. Arginine
d. Alanine

18. Increase in plasma cholesterol ($> 200 \text{ mg/dl}$) concentration is known as
a. hypercholesterolemia
c. hyperlipidemia
b. hypocholesterolemia
d. hypolipidemia

19. Carbohydrates are often referred as
a. Disaccharides
c. Saccharides
b. Monosaccharides
d. Polysaccharides

20. mostly produced by sugarcane and sugar beets
a. Maltose
c. Lactose
b. Sucrose
d. Galactose

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(Descriptive)

Time : 2 hrs. 30 min.

Marks : 50

[Answer question no.1 & any four (4) from the rest]

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| 1. Define amino acids. Describe its classification with suitable examples. | 10 |
| 2. Define protein. Describe its function and its classification. | $2+8=10$ |
| 3. Define lipids. Write its function. Describe its classification. | $1+4+5 =10$ |
| 4. Describe hormones in details. | 10 |
| 5. Define enzymes. Give its functions, classification and its diagnostic importance. | $2+8=10$ |
| 6. Describe Glycolysis along with its appropriate steps. | 10 |
| 7. Define carbohydrates and classify with suitable examples.
Define Ketone bodies. Write the steps of ketogenesis | $5+5=10$ |
| 8. Define vitamins. Write the classification of vitamins. Explain the deficiency of vitamin B1/Thiamine. | 10 |

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