

**BACHELOR OF PHYSIOTHERAPY
SECOND SEMESTER (SPECIAL REPEAT)
BIOCHEMISTRY
BPT- 205**

(Use separate answer scripts for Objective & Descriptive)

Duration : 3 hrs.

Full Marks : 70

(PART-A: Objective)

Time : 20 min.

Marks : 20

Choose the correct answer from the following:

1×20=20

1. The sugar present in nucleic acid is
a. Ribose
b. Xylose
c. Glucose
d. Fructose
2. The sugar Fructose belongs to category of
a. Hexoses
b. Aldoses
c. Ketoses
d. Both a and c
3. The non-carbohydrate moiety found in glycosides is known as
a. Glycon
b. Aglycon
c. Both a and b
d. None of the above
4. The homopolysaccharide that serves as a lubricant and shock absorbant of joints
a. Starch
b. Heparin
c. Hyaluronic acid
d. Glucose
5. The steroids contain a cyclic ring known as
a. Naphthalene
b. Catecholamine
c. Cyclopentanoperhydrophenanthrene
d. None of the above
6. The two most important products produced in HMP shunt include
a. Pentoses and amino acids
b. Pentoses and NADPH
c. Pentoses and steroids
d. Nucleic acids and NADPH
7. The conversion of Fructose 1,6- bisphosphate to glyceraldehyde- 3- phosphate is catalysed by
a. Phosphoglycerate kinase
b. Enolase
c. Aldolase
d. Triose phosphate isomerase
8. Glycolysis takes place in
a. Mitochondria
b. Endoplasmic Reticulum
c. Ribosome
d. Cytoplasm

9. Oxido reductase include enzymes
- Which are concerned with oxidation and reduction
 - Catalyse the transfer of a group from one substance to another
 - Carry out hydrolytic reaction
 - All of the above
10. Lock and Key Theory was given by
- Emil Fischer
 - Koshland
 - Michaelis and Menten
 - None of the above
11. The number of peptide bonds present in tripeptide is
- 1
 - 2
 - 3
 - 4
12. All the following statements are true with regard to Watson- Crick model of DNA, except
- DNA double stranded helix
 - DNA strands running in opposite directions
 - Adenine bonds with thymine
 - Guanine bonds with uracil
13. Transamination takes place principally in
- Liver
 - Muscles
 - Stomach
 - Gall bladder
14. The carbon of urea is supplied by
- Glucose
 - Carbon dioxide
 - Glycogen
 - Acetyl Co A
15. Which of the following is the precursor for the synthesis of fatty acids
- Acetyl Co A
 - Acyl Co A
 - Palmitoyl Co A
 - Lipoyl Co A
16. The synthesis of urea occurs in
- Kidney
 - Liver
 - Muscle
 - Brain
17. In a healthy individual, the urine output is about
- 1 - 2 l/ day
 - 4-5 l / day
 - 7-8 l/day
 - None of the above
18. _____ is a disorder characterized by the deficiency of ADH/ Vasopressin
- Kwashiorkar
 - Marasmus
 - Diabetes Mellitus
 - Diabetes Insipidus

19. The other name of Vit. E is

- a. Retinoids
- c. Tocoferol

- b. Calciferol
- d. None of the above

20. Night Blindness is symptom of deficiency of which of the following vitamins

- a. Vit. A
- c. Vit. C

- b. Vit. B1
- d. Vit. D3

(PART-B : Descriptive)

Time : 2 hr. 40 min.

Marks : 50

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

1. Write in brief about digestion and absorption of carbohydrates in body. 10
2. a) Why essential amino acids are called essential? Give examples. 10
b) Classify Amino acids based on structure.
3. Write about synthesis of glucose from non-carbohydrate sources. 10
4. Write about IUB system of enzyme classification with Example. Write about different factors affecting enzyme activity. 10
5. Define and classify carbohydrates with suitable examples. Write a note on the functions of carbohydrates. 10
6. What are the biochemical functions, dietary sources and deficiency disorders of Vit. E? 10
7. What are the different sources of intake and output of water in the body? 10
8. Write down the schematic pathway of the following: 5×2=10
 - a) Glycolysis
 - b) Citric acid cycle

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