REV-01 BPT/06/12

BACHELOR OF PHYSIOTHERAPY SECOND SEMESTER **BIOCHEMISTRY** BPT-205 [REPEAT]

[USE OMR SHEET FOR OBJECTIVE PART]

Duration: 3 hrs.

Full Marks: 70

Objective

Time: 30 min.

Marks: 20

 $1 \times 20 = 20$

2023/06

SET

Choose the correct answer from the following:

1. The example of buffer is/are:

a. Bicarbonate

b. Phosphate

c. Protein

d. All of the above

2. Maltose is a disaccharide of

a. Fructose and lactose

b. Glucose and glucose

c. Glucose and galactose

d. Glucose and lactose

3. Which sugars are present in Sucrose?

a. Glucose and glucose

b. Fructose and galactose

c. Fructose and glucose

d. Glucose and galatose

4. Rancidity of lipids of lipid-rich foodstuff is because of

a. Reduction of fatty acids

b. Hydrogenation fatty acids

c. Dehydrogenation of saturated fatty acids

d. Oxidation of fatty acids

5. Purine base found in RNA is

a. Cytosine

b. Thymine

c. Uracil

d. Guanine

6. Nucleoside contains

a. Base-sugar

b. Base-phosphate

c. Base-sugar-phosphate

d. Sugar-phosphate

7. Which of the following amino acids has to be supplemented in the diet?

a. Phenylalanine

b. Cysteine

c. Glutamine

d. Asparagine

8. This enzyme catalyzes the first step of glycolysis or the EMP pathway

a. Glucokinase

b. Pyruvate kinase

c. Phosphofructokinase-1

d. Hexokinase

9. Which of the following is not formed during the Krebs cycle?

a. Lactate

b. Isocitrate

c. Succinate

d. Both (a) and (b)

10.	What is the enzyme that breaks down lactos a. Lipase	b. Lactase
	c. Pepsin	d. Amylase
11.	Which of the following is the most essential stages of pregnancy to prevent birth defects a. Thiamin	al nutrient for a woman during her initial?) b. Folic acid
	c. Vitamin C	d. Vitamin E
12.	Which of the following vitamin helps in blo a. Vitamin A c. Vitamin C	od clotting? b. Vitamin D d. Vitamin K
13.	Which of the following vitamin functions as a. Thiamine c. Retinal	both, hormone and visual pigment? b. Riboflavin d. Folic acid
14. The nature of an enzyme is		
	a. Lipid	b. Vitamin
	c. Carbohydrate	d. Protein
15. This enzyme was first isolated and purified in the form of crystalsa. Ureaseb. Pepsin		
	c. Amylase	d. Ribonuclease
16. This statement about enzymes is true		
	a. Enzymes accelerate reactions by lowering the activation energy	Enzymes are proteins whose three- b. dimensional form is key to their function
	c. Enzymes do not alter the overall change in free energy for a reaction	d. All of these
17. The everyday dietary requirement of an average adult active moderately is		
	approximately a. 1000 kcal	b. 2500 kcal
	c. 4000 kcal	d. 8000 kcal
10. This provides the greatest average value may are a of putrient		
18.	This provides the greatest energy value pe a. protein	b. carbohydrate
	c. fat	d. water
19. Which of the following minerals controls growth and body weight?		
19.	a. Iodine	b. Calcium
	c. Phosphorous	d. All of the above
20. Which of the following vitamins is called a water-soluble vitamin?		
20.	a. Vitamin A b. Vitamin D	
	c. Vitamin C	d. Vitamin K

Descriptive

Time: 2 hrs. 30 min. Marks:50 [Answer question no.1 & any four (4) from the rest] 1. Describe the TCA cycle in detail. How many ATP are produced in 10 the cycle? 2. Explain lipoproteins with a diagram. How are lipoproteins 5+5=10 classified? What is buffering capacity? Explain the 3 types of buffer systems. 2+8=10 Explain the process of digestion and absorption of lipids. 10 Explain the role of activation energy in enzyme catalysed reaction 10 Define vitamins and classify them according to their solubility 4+6=10 Define BMR? Explain the factors affecting BMR 2+8=10 8. What are cofactors explain their role in enzyme catalysed reaction 2+8=10

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