18NDU17

PSG COLLEGE OF ARTS & SCIENCE
(AUTONOMOUS)

BSc DEGREE EXAMINATION DECEMBER 2022
(Fourth Semester)

Branch – **NUTRITION, FOOD SERVICE MANAGEMENT AND DIETETICS**

BIO CHEMISTRY

Time: Three Hours Maximum: 75 Marks

SECTION-A (10 Marks)

Answer **ALL** questions
ALL questions carry **EQUAL** marks (10 x 1 = 10)

1. It is an essential for the conversion of glucose to glycogen in liver is
   (i) UTP (ii) GTP
   (iii) Pyruvate Kinase (iv) Guanosine

2. Which is not a oligosaccharide sugar
   (i) Galactose (ii) Lactose
   (iii) maltose (iv) sucrose

3. The following is not a phospho lipid
   (i) Sphingomyelin (ii)lecithin
   (iii) cerebroside (iv) cephalin

4. Fattyacids help in the synthesis of all except
   (i) Glucose (ii) Cholesterol
   (iii) ketone bodies (iv) Fat

5. Which of the following is a derived protein .
   (i) Protamines (ii)Peptones
   (iii) Prolamines (iv)Lactalbumin.

6. Digestion of proteins is initiated by
   (i) amylase (ii) sucrase
   (iii) chymotrypsin (iv)Pepsin

7. Which base is not found in DNA
   (i) Adenine (ii) guanine
   (iii) cytosine (iv) Uracil.

8. Translation occurs at
   (i) mitochondria (ii)centrosome
   (iii) nucleus (iv) ribosome

9. Hexokinase is a
   (i) Transferase (ii) Reductase
   (iii) Oxidoreductase (iv) Oxidase

10. Inactive precursors of enzymes are known as.
    (i) apoenzymes (ii) co enzymes
    (iii) proenzymes . (iv) Holoenzymes

SECTION - B (35 Marks)

Answer **ALL** Questions
ALL Questions Carry **EQUAL** Marks (5 x 7 = 35)

11. a. Discuss the properties of Disaccharides.

OR

b. Explain Kreb's cycle with schematic representation.

Cont...

12.a. Show the composition of lipids

OR

b.How unsaturated fatty acids are oxidised?

13. a. Outline the classification of proteins based on 'R' group reactions ?.

OR

b. Summarize the transportation of ammonia.

14.a. Produce the structure of purine and pyramidine bases

OR

b. Narrate the properties of DNA.

15.a. Sketch the Michaelis- Menton Equation.

OR

b. State the hydrolysis and conjugation detoxification reaction.

SECTION - C (30 Marks)

Answer any **THREE** Questions

ALL Questions Carry **EQUAL** Marks (3 x 10 = 30)

16. Analyse the inter-relationship between carbohydrate and protein metabolism.

17. Explain the cholesterol catabolism.

18. Describe on structure of protein.

19. Examine the functions of ATP.

20. Bring out the principle and technique of Paper Chromatography .

Z-Z-Z END