KATHMANDU UNIVERSITY
End Semester Examination
June/July, 2023

Marks Scored:

Level : B.Pharm.
Year : II

Course : PHAR 219
Semester : I

Exam Roll No. :

Time: 30 mins.

F. M. : 20

Registration No.:

Date 07 JUL 2023

SECTION "A"
[20Q. × 1 = 20 marks]

Encircle the most appropriate answer.

1. Which is the example of monosaccharide carbohydrate?
   a. Maltose b. Glucose c. Starch d. Cellulose

2. The storage form of glucose is
   a. Pyruvate b. Glycogen c. Triglyceride d. Cholesterol

3. Protein is polymers of .....
   a. Monosaccharides b. Fatty acids
   c. Amino acids d. Vitamins

4. Glycolysis is take place in .....
   a. Cytosol b. Mitochondria c. Golgi bodies d. Nucleus

5. What is the end product of amino acids metabolism?
   a. Ammonia b. Urea c. Uric Acid d. Creatinine

6. How many ATP are produced from one acetyl CoA?
   a. 8 b. 10 c. 12 d. 14

7. What is the end product of purine metabolism?
   a. Uric acid b. Urea c. Cytosine d. Adenine

8. What is the biologically active form of vitamin D?
   a. Tocopherol b. Retinal c. Niacin d. Calcitriol

9. Vitamin B2 is also called .....
   a. Niacin b. Pantothenic acid
   c. Riboflavin d. Cyanocobalamin

10. The lipid that function as fuel reserve in animal is .....
    a. Glycogen b. Protein c. Cholesterol d. Triacylglycerol

11. Gluconeogenesis is the process of formation new ..... from carbohydrate or non-carbohydrate precursor.
    a. Amino acids b. Glucose c. Vitamins d. Lipids

12. ..... Cholesterol is also called good cholesterol.
    a. LDL b. VLDL c. IDL d. HDL

13. What is the location of electron transport chain?
a. Mitochondria b. Cell membrane c. Nucleus d. Golgi bodies

14. Dietary deficiency of iodine is related to .....
a. Increased basal metabolic rate b. Increased synthesis of thyroglobulin
c. Increased secretion of TSH d. Increased heart rate and blood pressure

15. The naturally occurring protein consist of .....
a. D-amino acids b. L-amino acids
c. Both a and b d. Neither a nor b

16. Bile acid is derived from;
a. Cholesterol b. Triglyceride c. Amino acids d. Glucose

17. The coenzyme is;
a. Often a metal b. Always a protein
c. Always a carbohydrate d. Often a vitamin

18. Which of the following organs does not have glycogen storage?
a. Liver b. Muscle c. Intestine d. Erythrocytes

19. The process by which protein synthesis from genetic code occurs is best described by;
a. Transcription b. Translation c. Replication d. Reproduction

20. What is the enzyme responsible for the breakdown of triglycerides into fatty acids and monoacylglycerol in the intestine?
a. Pancreatic lipase b. Lipoprotein lipase
c. Hormone-sensitive lipase d. Phospholipase

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Semester : I
F. M. : 55

SECTION "B"
[5Q. × 3 = 15 marks]

Attempt *ANY FIVE* questions.

1. Write the rate limiting enzymes of glycolysis with reactions.
2. What is the importance of TCA cycle?
3. Define purine and pyrimidine with examples.
4. Write the composition of nucleotides.
5. Define hypercholesterolemia and atherosclerosis.
6. Write the biochemical importance of vitamin D.
7. Write the different between DE NOVO and salvage pathway of Pyrimidine synthesis.

SECTION "C"
[5Q. × 5 = 25 marks]

Attempt *ANY FIVE* questions.

8. Define enzymes and its importance.
9. Define protein and its functions.
10. Define carbohydrate and classify it with examples.
11. Write the difference between fat soluble and water soluble vitamins with examples.
12. Describe briefly about the electron transport chain.
13. Define glycogen metabolism and write its significance.
14. Describe briefly about oxidation of fatty acids.

SECTION "D"
[2Q. × 7.5 = 15 marks]

15. Write the biological role of carbohydrate, lipids, nucleic acids and amino acids.
16. Summarize the amino acids metabolism.
17. Define the types of hormones and write in brief about the mechanism of action of hormones.