

KATHMANDU UNIVERSITY
End Semester Examination
January/February 2024

Marks Scored:

Level : B.Pharm.

Year : II

Exam Roll No. :

09 FEB 2024

Time: 30 mins.

Course : PHAR 219

Semester : I

F. M. : 20

Registration No.:

Date :

SECTION "A"

[20Q. × 1 = 20 marks]

Choose and encircle the most appropriate option from each set of choices

- Which is the example of disaccharide carbohydrate?
a. Maltose b. Glucose c. Starch d. Cellulose
- Glycogen is the storage form of
a. Pyruvate b. Glucose c. Triglyceride d. Cholesterol
- Polymers of amino acids make
a. Carbohydrate b. Fatty acids c. Protein d. Vitamins
- TCA cycle is take place in
a. Cytosol b. Mitochondria c. Golgi bodies d. Nucleus
- Urea is the end product of
a. Ammonia b. Amino acids c. Uric Acid d. Creatinine
- How many ATP are produced from one glucose?
a. 32 b. 34 c. 36 d. 38
- Uric acid is the end product of metabolism.
a. Purine b. Pyrimidine c. Glucose d. Lipids
- What is the biologically active form of vitamin E?
a. Tocopherol b. Retinal c. Niacin d. Calcitriol
- Vitamin B1 is also called
a. Niacin b. Pantothenic acid c. Riboflavin d. Cyanocobalamin
- Triacylglycerol is the fuel reserve in animal of
a. Enzyme b. Protein c. Nucleic acid d. Lipid
- 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. Cholesterol biosynthesis is controlled by the enzyme
a. HMG CoA reductase b. HMG CoA synthase
c. Hexokinase d. Glucosidase
15. The naturally occurring protein consist of
a. D-amino acids b. L-amino acids c. All of above d. None of the above
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. Hypercholesterolemia refers to
a. Decrease cholesterol level in blood
b. Decrease triacylglycerol level in blood
c. Increase cholesterol level in blood
d. Increase triacylglycerol level in blood

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Time : 2 hrs. 30mins.

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Semester : I
F. M. : 55

09 FEB 2024

SECTION "B"
[5 Q. × 3 = 15 marks]

Attempt *ANY FIVE* questions.

1. Write the rate limiting enzymes of glycolysis with reactions.
2. Write the classification of enzyme?
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 purine 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 hormones and write its importance.
13. Define glycogen metabolism and write its significance.
14. Write the biological name of water and fat soluble vitamins.

SECTION "D"
[2 Q. × 7.5 = 15 marks]

Attempt *ANY TWO* questions.

15. Write the biological role of carbohydrate, lipids, nucleic acids and amino acids.
16. Summarize the amino acids metabolism.
17. Describe briefly about the electron transport chain.