

S.NO: 22N1- UBI

Course Code: BBH

A.D.M.COLLEGE FOR WOMEN, NAGAPATTINAM

(AUTONOMOUS)

B.Sc (Biochemistry) Degree Examination

V Semester – November – 2022

CC VIII – BIOENERGETICS AND METABOLISM

Time: 3 hours

Maximum Marks: 75

Section –A

10X2=20

Answer ALL the Questions

1. Define metabolism.
2. What is monooxygenase?
3. What is chemiosmosis?
4. What are ionophores?
5. What is acetyl-CoA?
6. Define glycogenolysis.
7. What is α -oxidation?
8. Define ketogenesis.
9. What are nucleic acids?
10. What is transamination?

Section -B

5X5=25

Answer **ALL** the Questions

11. a) Describe the structure of an ATP molecule.

(or)

b) ATP is the energy currency of the cell .

12. a) Analyse any three role of uncouplers in oxidative phosphorylation.

(or)

b) Explain any three role of inhibitors in electron transport chain.

13. a) Describe the steps involved in metabolism of galactose.

(or)

b) Illustrate the steps involved during pentose phosphate pathway.

14. a) Write about the biosynthesis of phospholipids.

(or)

b) Explain the pathway of cholesterol biosynthesis.

15. a) Describe the steps involved in urea cycle.

(or)

b) Give notes on salvage pathway of purine biosynthesis.

Section -C

3 X 10 = 30

Answer any **THREE** Questions

16. Categorize the enzymes involved in oxidation & reduction reaction.
17. Elucidate the mechanism of oxidative phosphorylation.
18. Explain Krebs cycle.
19. Illustrate the steps involved during the β -oxidation of fatty acids.
20. Enumerate the steps involved during catabolism of acidic amino acids.

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