

PARUL UNIVERSITY
FACULTY OF PHARMACY
B. Pharm. Winter 2018 - 19 Examination

Semester: 2

Subject Code: BP203 T

Subject Name: Biochemistry

Date: 10/12/2018

Time: 2:00 pm to 5:00 pm

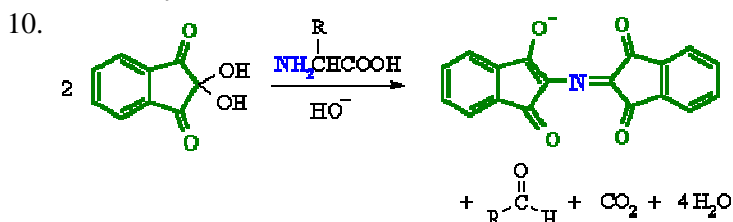
Total Marks: 75

Instructions:

1. Figures to the right indicate maximum marks.
2. Make suitable assumptions wherever necessary.

Q.1 Multiple Choice Questions (MCQs) (1 Mark Each)**(20)**

1. Which of the following enzyme have diagnostic application in acute hepatitis?
 - a) SGOT
 - b) PLP
 - c) GDH
 - d) SGPT
2. Which of the following GAG functions as a lubricant and shock absorber?
 - a) Hyarolonic acid
 - b) Chondroitin sulphate
 - c) Heparin
 - d) None
3. Which amino acid is mostly present on active sites of enzyme?
 - a) Cysteine
 - b) Serine
 - c) Glycine
 - d) Lysine
4. Osazones of Lactose are of Which shape?
 - a) Needle
 - b) Sun-flower
 - c) Powder puff
 - d) Broom
5. How many ATPs are generated from one TCA cycle?
 - a) 9 ATP
 - b) 12 ATP
 - c) 20 ATP
 - d) 24 ATP
6. Which of the following is involved in HMP shunt?
 - a) G6PD
 - b) Ribulose 5 phosphate
 - c) NADPH
 - d) All of above
7. N molecule on position 7 in purine nitrogen base is provided by?
 - a) Glycine
 - b) Glutamine
 - c) CO₂
 - d) NH₃
8. Which of the following enzyme involves nonhydrolytic removal of a group to a substrate?
 - a) Lyasaes
 - b) Isomerases
 - c) Ligases
 - d) Nonw
9. Which of the following amino acid is with non polar side chain?
 - a) Serine
 - b) Proline
 - c) Lysine
 - d) Aspartate



Identify above mentioned reaction.

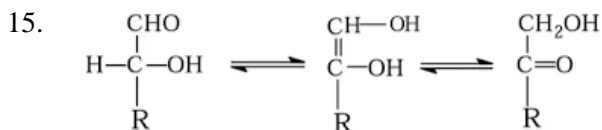
- a) Edman's reaction
 - b) Sanger's reaction
 - c) Ninhydrin reaction
 - d) None
11. Hydrolysis of triacylglycerols is known as
 - a) Lipolysis
 - b) Lipogenesis
 - c) Gluconeogenesis
 - d) Glycolysis
 12. Which of the following protein is important in carboxylation of Acetyl CoA in fatty acid synthesis?
 - a) Riboflavine
 - b) Cynocobalamine
 - c) Thiamine
 - d) Biotin

13. Which branch of biochemistry deals with the quantitative study of the energy transductions that occur in living cells?

- a) Bioenergetics
 b) Proteomics
 c) metabolomics
 d) none

14. Which of the following is a disaccharide?

- a) Mannose
 b) Lactose
 c) Galactose
 d) Fructose



Identify the property of carbohydrate related to above mentioned reaction.

- a) Tautomerization
 b) polymerization
 c) Reduction
 d) Dehydration

16. Which reaction is involved in conversion of histidine to histamine?

- a) Transamination
 b) Decarboxylation
 c) Both
 d) None

17. Which of the following is inhibitor of Translation stage of DNA replication?

- a) Streptomycin
 b) Tetracycline
 c) Puromycin
 d) All of above

18. Identify correct option.

- a) $\Delta G = \Delta H - T\Delta S$
 b) $\Delta H = \Delta G - T\Delta S$
 c) $\Delta H = \Delta G + T\Delta S$
 d) $\Delta G = -T\Delta S$

19. Enzyme protein kinase is dependent on.....

- a) ADP
 b) cAMP
 c) ATP
 d) All of above

20. Which of the following is conjugated protein?

- a) Albumin
 b) Globulin
 c) Lipoprotein
 d) None

Q.2 Long Answers (any 2 out of 3) (10 Mark Each)

(20)

- Write a note on Nucleic acid and explain semi conservative model of DNA replication.
- Classify Carbohydrates and explain Glycolysis in detail.
- Write a detailed note on oxidation of fatty acid.

Q.3 Short Answers (any 7 out of 9) (5 Mark Each)

(35)

- Write a note on Jaundice.
- Explain oxidative Phosphorylation and uncouplers.
- Explain disorders associated with Tyrosine metabolism.
- Write a note on allosteric regulation of enzymes.
- Describe in detail disorders of lipid metabolism.
- Write a note on HMP shunt.
- Explain purine metabolism.
- Write a note on energy rich compound.
- Explain urea cycle.