

PARUL UNIVERSITY
FACULTY OF PHARMACY
D. Pharm., May-2018 Examination

Year: 1

Subject Code: 08600104

Subject Name: Biochemistry and clinical pathology

Date: 21/05/2018

Time: 10:00am to 1:00pm

Total Marks: 80

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. Iron in mucosal cell binds with the protein :

A) Transferrin	C) Ceruloplasmin
B) Ferritin	D) Hemosiderin
2. The number of double bond present in arachidonic acid :

A) 1	C) 3
B) 2	D) 4
3. SGPT is chemically :

A) Serum glutamate phosphate transaminase	C) Serum guanine pyruvate transaminase
B) Serum glutamate pyruvate transaminase	D) Serum guanine phosphate transaminase
4. Good lipoprotein name is :

A) LDL	C) VLDL
B) HDL	D) IDL
5. The Synthesis of Urea occur in :

A) Kidney	C) Liver
B) Muscle	D) Brain
6. Which element prevent the development of dental caries :

A) Fluorine	C) Phosphorus
B) Calcium	D) Sodium
7. Which test difference monosaccharide and disaccharide?

A) Seliwanoff 's test	C) Barfoed 's test
B) Iodine's test	D) Benedict 's test
8. The major source of plant carbohydrate is :

A) Starch	C) Glycogen
B) Heparine	D) Saccharin
9. Vitamin used in the treatment of homocystinuria is :

A) B ₁₂	C) B ₂
B) B ₁	D) B ₄
10. A Holoenzyme is :

A) Functional unit	C) Apoenzyme
B) Coenzyme	D) All of these
11. Oxidation of one molecule of glucose yields :

A) 24 ATP	C) 08 ATP
B) 12 ATP	D) 38 ATP
12. Rothera test is positive for :

A) Acetone	C) Albumin
B) Glucose	D) Cholesterol
13. A purine nucleotide is :

A) AMP	C) CMP
B) UMP	D) TMP

14. An example of enzyme inhibition :

A) Reversible inhibition	C) Allosteric inhibition
B) Irreversible inhibition	D) All of these
15. A component of the respiratory chain in mitochondria is :

A) Coenzyme Q	C) Acetyl coenzyme
B) Coenzyme A	D) Coenzyme containing flourine
16. The following is sulphur containing aminoacid :

A) Methionine	C) Cystine
B) Cysteine	D) All of above
17. The major source of plant carbohydrate is :

A) Starch	C) Glycogen
B) Heparin	D) Saccharin
18. Which of the following nucleotide bases is not found in RNA :

A) Thymine	C) Cytosine
B) Adenine	D) Uracil
19. The protein present in hair is :

A) Keratin	C) Elastin
B) Myosin	D) Collagen
20. The bond in protein structure that are not broken on denaturation :

A) Hydrogen bond	C) Ionic bond
B) Peptide bond	D) Disulfide bond

Q.2 Long Answers (any 8 out of 10) (05 Mark Each)

(40)

1. Define and classify the carbohydrate and write about qualitative tests of carbohydrate.
2. Define enzymes. Classify them and write factors affecting the enzyme action.
3. Write a short note on Rancidity and Iodine Number.
4. What are lipids? How they classified. Give biological importance of phospholipids.
5. Explain HMP Shunt (Hexose monophosphate shunt) in detail
6. Describe functions and metabolism of phospholipids.
7. Write about inborn error of aminoacid metabolism
8. Write brief on chemistry and role of vitamin K and vitamin A.
9. Describe the metabolism of phenylalanine and tyrosine.
10. Write about the various types, characteristics and metabolism of lipoprotein. (2 mark)

Q.3 Short Answers (2 Mark Each)(Answer any 10)

(20)

1. Write about importance of bio-chemistry and clinical pathology.
2. Define cell. Differentiate eukaryotic and prokaryotic cell.
3. What are the biological function of protein?
4. Define Saponification value and Acid value.
5. Write about importance of serum enzyme in diagnosis of disease.
6. Write about the biological functions of protein.
7. Explain Kwashiorkor and Marasmus.
8. Differentiate diabetes mellitus and diabetes insipidus.
9. Describe the physical and chemical properties of lipids.
10. Write about role of Co-enzyme.
11. Write down the various functions of Cholesterol.
12. Write about the deficiency symptoms of Iron and Calcium.