

PSG COLLEGE OF ARTS & SCIENCE
(AUTONOMOUS)

BSc DEGREE EXAMINATION MAY 2022
(Sixth Semester)

Branch – BIOCHEMISTRY

CLINICAL BIOCHEMISTRY

Time: Three Hours

Maximum: 75 Marks

SECTION-A (10 Marks)

Answer ALL questions

ALL questions carry EQUAL marks

(10 x 1 = 10)

1. The deficiency of which of the following enzyme leads to galactosemia?
(i) Galactokinase (ii) Pyruvate kinase
(iii) PFK-1 (iv) PFK-2
2. Identity the enzyme deficient in Von – Gierke's disease
(i) Glycogen synthase (ii) Phosphorylase
(iii) Glucose-6-Phosphatase (iv) Maltase
3. Genetic deficiency of lipoprotein lipase cause hyper lipoproteinemia of the following type.....
(i) Type I (ii) Type II a (iii) Type II b (iv) Type V
4. Gauchers disease is due to the deficiency of enzyme.
(i) Galactokinase (ii) Pyruvate kinase
(iii) Glucocerebrosidase (iv) Aldolase
5. A person with phenylketonuria is advised not to consume which of the following products?
(i) Glycine containing foods (ii) Fat containing foods
(iii) Glucose (iv) Aspartame
6. Which of the following enzyme is not used in the diagnosis of myocardial infarction?
(i) Aldolase (ii) Aspartate transaminase
(iii) Creatine kinase (iv) LDH
7. Orotic aciduria is caused due to the defect in which enzyme?
(i) UMP-synthetase (ii) Phospho fructokinase
(iii) Both (iv) None
8. What is the reason for the decreased elimination of uric acid from the body?
(i) Increased glomerular filtration rate (ii) Deficiency of UMP-synthetase
(iii) Decreased glomerular filtration rate (iv) None of the above
9. Iodine deficiency can cause
(i) Goiter (ii) Thyroid cancer
(iii) Solitary thyroid nodules (iv) Thyroiditis
10. Low level of adrenal cortex hormones result in
(i) Goitre (ii) Diabetes
(iii) Addison disease (iv) Cushing syndrome

Cont...

SECTION - B (35 Marks)Answer **ALL** Questions**ALL** Questions Carry **EQUAL** Marks (5 x 7 = 35)

- 11 a Explain the classification of hypoglycemia.
OR
b Write a note on galactosemia.
- 12 a Discuss the pathophysiology of atherosclerosis in brief.
OR
b Write a note on steatorrhea.
- 13 a Explain the cystinuria.
OR
b Write a note on Maple syrup urine disease.
- 14 a Explain the diagnosis and the treatment of gout.
OR
b Write a note on Gilberts disease.
- 15 a Write a note on hyperthyroidism.
OR
b Explain the Addison's disease.

SECTION - C (30 Marks)Answer any **THREE** Questions**ALL** Questions Carry **EQUAL** Marks (3 x 10 = 30)

- 16 Explain the classification, diagnosis and the treatment of diabetes.
- 17 What are lipoproteins? Add a note on lipoproteinemia.
- 18 Explain the liver marker enzymes.
- 19 Describe the disorders of bilirubin metabolism.
- 20 Describe the Clinical chemistry of ACTH.

Z-Z-Z

END