18BCV26/18BCU26

PSG COLLEGE OF ARTS & SCIENCE
(AUTONOMOUS)

BSc DEGREE EXAMINATION MAY 2023
(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 glycogen can't break down. collects in the liver and muscle tissues. Symptoms include a swollen belly, delayed growth, and weak muscles.
   (i) Type I glycogen storage disease
   (ii) Type II glycogen storage disease
   (iii) Type III glycogen storage disease
   (iv) Type IV glycogen storage disease

2. Which of the following serum measurements are not used for the diagnosis of diabetes mellitus?
   (i) Fasting blood glucose (ii) Postprandial blood glucose
   (iii) Insulin (iv) Urea

3. Which of the following statements is true about the weight of the human liver?
   (i) 1.30 kg to 1.56 kg (ii) 1.44 kg to 1.66 kg
   (iii) 1.36 kg to 1.71 kg (iv) 1.68 kg to 1.86 kg

4. Familial hypercholesterolemia is a genetic disorder of cholesterol metabolism. The defect lies in the.....
   (i) Transport of cholesterol from extrahepatic tissue to the liver
   (ii) Impairment of cholesterol degradative pathway
   (iii) Impairment of uptake of cholesterol by tissues
   (iv) Impairment of HDL metabolism due to deficiency of Apo-A

5. Phenylketonuria in a genetic disorder caused by deficiency in which enzyme?
   (i) Phenyl alaniue hydronylase (ii) Thyrosine hydronylase
   (iii) Thyprophan hydronylase (iv) Histicline hydronylase

6. Ammonia in the brain is converted into.
   (i) Urea (ii) Glutamine (iii) Glutamic acid (iv) Creatinine

7. Conjugated hyperbilirubinaemia results from.
   (i) Gilbert's syndrome
   (ii) Physiologic jaundice
   (iii) Excess production of bilirubin
   (iv) Decreased hepatic uptake of bilirubin

8. This can cause Hepatitis.
   (i) an improperly functioning immune system
   (ii) alcohol and medicines
   (iii) viruses
   (iv) all of these

9. Myxoedema in adults is caused due to.
   (i) Hyperthyroidism (ii) Deficiency of PTH
   (iii) Over production of PTH (iv) Deficiency of thyroid hormone

10. Effects of hypothyroidism include all except.
    (i) Diarrhoea (ii) lethargy (iii) Anorexia (iv) Weight gain

Cont...

SECTION - B (35 Marks)

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

11. a) Write down altered metabolism in hypoglycaemia. Classify hypoglycaemia and mention the control measures to in hypoglycaemic management.

(Or)

b) Chart out metabolic disorder and effects in fructosuria and galactosemia.

12. a) Explain types of fatty liver.

(Or)

b) Write about abnormality and treatment for steatorrhea, Neimann pick-disease.

13. a) Discuss about the following clinical disorder
i) Hartnup's disease ii) MSUD.

(Or)

b) Discuss about inborn metabolic error and management of
i) Albanism ii) Phenyl ketonuria.

14. a) What is jaundice? Explain metabolic changes, symptoms and types of Jaundice.

(Or)

b) Explain the following abnormalities and control measure
i) Crigler-Najjar syndrome ii) Gout.

15. a) Discuss in detail about hypothyroidism with reference to pathology, symptom and treatment .

(Or)

b) Differentiate clinical pathology symptoms and treatment in Cushing syndrome and Addison's disease.

SECTION - C (30 Marks)

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

16. Narrate in detail I to IV types of glycogen storage diseases; including metabolic alteration, symptoms and control measures.

17. What is hyper lipoproteinemia? Describe its clinical manifestation, symptoms and treatment in types of hyper lipoproteinemia.

18. Discuss briefly on manipulations in marker enzymes in following :
i) Cardiac disease ii) Liver disease.

19. Discuss on the following:
i) Orotic aciduria ii) Xanthinuria iii) Gilberts disease.

20. How are catecholamines measured? Explain where and how catecholamines abnormal levels influence pathophysiology.

Z-Z-Z END