

**Avinashlingam Institute for Home Science and Higher education for Women
(Deemed to be University) Coimbatore-641043
Bachelor's Degree examination-November 2018
V Semester**

Class: III UG

Time: 3 Hours

Major: Biochemistry and Biotechnology

Maximum Marks: 100

15BBCC11 Clinical Biochemistry

Part-A

10x1=10

Choose the Correct answer

1. What is the functional filtration unit in the kidney?
a) renal tubule b) renal corpuscle
c) nephron d) Glomerulus
2. The accumulation of waste substances in the blood is called
a) Pyelonephritis b) Urethritis c) Cystitis d) Uremia
3. Largest gland in body is
a) Pituitary gland b) Liver c) Large intestine d) Stomach
4. Late-stage chronic liver disease is called
a) Liver failure b) Cirrhosis
c) Liver cancer d) fatty liver disease
5. The major storage form of lipids is
a) Glycerophospholipids b) Esterified cholesterol c) Triglycerides
d) Sphingolipids
6. Which of the following lipoproteins are the major carriers of Triacylglycerol?
a) HDL and LDL b) HDL c) LDL d) Chylomicrons and VLDL
7. Deficiency of enzyme α -keto acid decarboxylase leading to block leading to a block in the metabolism of branch chain aminoacids is observed in
a) Maple syrup urine disease b) Alkaptonuria c) Phenylketonuria
d) Huntington disease
8. Formation of a local blood clot in an artery is called
a) thrombin b) thrombosis c) prothrombin d) thrombokinase
9. Electrolytes are chemical compounds that dissociate in water to form
a) charged particles called ions b) Nitrogen c) Charged particles called urea
d) urea
10. Normal bodyfluid and electrolyte balance is maintained by coordination of
a) Aldosterone b) Antidiuretic hormone c) Angiotensin II
d) Both A and B

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Part- B

5×6=30

Answer the following

Answer should not exceed 400 words or two pages

- 11.a Briefly discuss the functions of kidney
(Or)
- 11.b Describe the process of glomerular filtration
- 12.a) What is ketosis? How is it diagnosed?
(Or)
- 12.b) Briefly explain blood glucose regulation
13. a) Write notes on Niemann-Pick disease
(Or)
- 13.b) Give an account on blood pressure? How is it measured?
- 14.a) Discuss i) Bleeding time ii) Clotting time iii) Prothrombin time
(Or)
- 14.b) Briefly explain about Phenylketonuria
- 15.a) Explain the clinical significance of creatine phosphokinase test
(Or)
15. b) What is Lactate dehydrogenase test? Why is it performed?

Part-C

5×12 = 60

Answer the following

Answer should not exceed 800 words or four pages

- 16.a) Explain in detail about dialysis and its types
(Or)
- 16.b) Describe the diagnosis and screening test for renal diseases
- 17.a) Discuss in detail about plasma lipoproteins
(Or)
- 17.b) Discuss in detail about the liver diseases and disorders
- 18.a) Explain hypo and hyper lipoproteinemia in detail
(Or)
- 18.b) How is atherosclerosis caused? Discuss the risk factors and diagnosis of this disease.
- 19.a) Discuss the disorders of amino acid metabolism in detail with two examples
(Or)
19. b) Describe the process of blood coagulation in detail
- 20.a) Explain: i) Functions and mechanism of transaminases ii) Gamma-glutamyl transpeptidase test
(Or)
- 20.b) Describe about the electrolyte disorders associated with electrolyte imbalance