Pharma-D First Year Medicinal Biochemistry Important Question Bank

Essay Questions Pharma D 1st Year:

1. Define and classify enzymes. Discuss the various factors affectingenzyme activity.
2. What are ketone bodies. Write in detail about Ketogenesis.
3. Discuss in detail about radioimmuno assay & enzyme linked immunosorbent assay.
4. Explain TCA cycle in detail with its eneryetics.
5. Write the biosynthesis of pyrimidine nucleotides.
6. Enumerate the various liver function test and discuss the tests for serum bilirubin and urine bilirubin.
7. Describe the reaction, regulation and metabolic significance of citric acid cycle.
8. Discuss in detail about the metabolism of Cholesterol.
9. Define enzymes. Classify them and describe the factors affecting enzyme activity.
10. What are coenzymes? Describe the biochemical role of niacin and pyridoxine.
11. Define lipids and Explain beta oxidation of fatty acids with its energetics.
12. Write a detailed note on the Urea cycle with reactions. Mention its major metabolic disorders.
13. Explain the semi conservative replication of a double stranded DNA molecule. Add a note on its repair mechanism.
14. Explain the Hexose Monophosphate (HMP) Shunt. Add a note on its significance.
15. Explain the various functions of liver. Elaborate any two liver function tests.
16. Write a detailed note on the Urea cycle with reactions. Mention its major metabolic disorders..
17. Explain the semiconservative replication of a double stranded DNA molecule. Add a note on its repair mechanism.
18. Explain the semi conservative replication of a double stranded DNA molecule. Add a note on its repair mechanism.
19. Explain in detail about the reactions and energetic of beta oxidation of fatty acid.
20. Describe about the biosynthesis of porphyrin.
21. Discuss in detail about the various test to access kidney function Test.
22. Explain the factors influencing enzyme activity.
23. Explain in detail and significance of Glycolysis.
24. Describe about the degradation and biosynthesis of Cholesterol.

25. Explain in detail about the components and reactions of ETC.
26. Describe in detail about the urea cycle and its disorder.
27. Describe in detail about Radio Immuno Assay and ELISA.
28. Discuss the Clinical importance of Enzyme.
29. Discuss in detail about the various test to access Liver Function Test.
30. Describe in detail about the reaction of TCA cycle.
31. Define Enzymes. Describe the various factors affecting Enzyme activity.
32. Write briefly about HMP shunt pathway.
33. What are Ketone bodies? Write in detail about the formation and utilization of Ketone bodies.
34. Write the biosynthesis of Purine nucleotides.
35. Hexose Monophosphate Shunt and its significance.
36. The process of beta-oxidation.
37. The various functions of liver in the body.
38. Cholesterol, its functions and clinical significance with respect to lipid profile tests.
39. Explain the semi-conservative replication of a double stranded DNA molecule.
40. Describe the various Renal function test and explain any two Renal function test.
41. Write in brief about the reactions and significance of Gluconeogenesis.
42. Write a note on NPN constituents and urinary tract calculi.
43. Electron transport chain with sites of ATP production.
44. Glycogen synthesis and breakdown.
45. Functions of Kidney and any two kidney function tests.
46. Biosynthesis of fatty acids with pathway and enzymes.
47. What are Isoenzymes and explain about their clinical significance.
48. Write about mutation and DNA repair mechanism.
49. Discuss in detail about the biosynthesis of Cholesterol.
50. Radio-Immuno Assay.
51. Write briefly about TCA cycle and its significance.
52. Explain the steps involved in Electron transport chain and its mechanism.
53. Write in detail about the metabolism of Pyrimidine nucleotides.
54. Define and classify Enzymes.
55. Define and classify enzymes. Explain the factors affecting enzyme activity.
56. Describe in detail HMP Shunt.
57. Explain estimation of sodium and potassium.
58. Beta oxidation of fatty acids.
59. Explain the various transport process across Cell membranes.
60. Gluconeogenesis.
61. Co-enzymes involved in biological oxidation.
62. Determination of HDL and LDL in serum.

Short Notes Questions

1. Oxidative phosphorylation.
2. Urea – cycle.
3. Replication.
4. Vanden – Berg reaction
5. Lipoproteins.
6. Urine concentration tests.
7. Transport across cell membranes.
8. Co enzymes
9. GTT.
10. Various components of electron transport chain.
11. Protein biosynthesis
12. Jaundice.
13. Cyclic AMP and their biological significance
14. Anaerobic dehydrogenases involved in biological oxidation
15. Therapeutic and diagnostic applications of Coenzyme A.
16. Metabolic disorders of Amino acids
17. DNA replication.
18. Kidney Function Tests.
19. Explain in detail about ATP and its biological significance.
20. Write a brief note on metabolic disorders of carbohydrates.
21. Radio immuno assay.
22. Hyperbilirubinemia.
23. Lipoproteins - Types and functions
24. HMP Shunt- A brief account.
25. Active transport
26. Structure of cholesterol and its functions
27. Determination of sodium in serum.
28. Transamination.
29. Porphyrias.
30. Purine catabolism.
31. Maple syrup urine and alkatonuria
32. ELISA.
33. Vandenburg.
34. Creatinine clearance test.
35. Explain the Van den Bergh reaction
36. Discuss the biological significance of cyclic – adenosine monophosphate (c-AMP).
37. Write a note on Atherosclerosis.
38. Explain the mechanism of Transamination.
39. Explain the biochemical organisation of a cell.
40. Enumerate the IUB classification of enzymes with example.
41. Explain the Galactose tolerance test.
42. What are the various types of Porphyrias.
43. Write a note on Urine analysis.
44. Write a note on Urea clearance
45. Write a note on Creatinine clearance test

46. Discuss Radio Immuno Assay.
47. Discuss Adenosine triphosphate (ATP) as an energy rich compound.
48. Discuss the diagnostic applications of iso-enzymes.
49. Write a note on Diabetes mellitus
50. Write a note on Hypercholesterolemia.
51. Explain the collection of blood samples in a clinical chemistry laboratory.
52. Enumerate the factors affecting enzyme activity.
53. Explain Oxidative phosphorylation.
54. What are the features of Genetic code.
55. Explain the Van den Bergh reaction.
56. Discuss the biological significance of cyclic – adenosine monophosphate (c-AMP).
57. Write a note on Atherosclerosis
58. Explain the mechanism of Transamination.
59. Explain the biochemical organisation of a cell.
60. Enumerate the IUB classification of enzymes with example.
61. Explain the Galactose tolerance test.
62. What are the various types of Porphyrias.
63. Write a note on Urine analysis.
64. Write a note on Urea clearance.
65. What are zymogens? Give examples.
66. Write a brief note on chemiosmotic theory.
67. State the central dogma of molecular biology.
68. What are isoenzymes? Give its applications.
69. What is renal threshold? Give the renal threshold value for glucose.
70. Briefly explain the structure of plasma membrane.
71. Purine catabolism.
72. Define hyperbilirubinemia. Name the tests for bilirubin in urine.
73. Discuss about the key regulator enzymes in glycolysis.
74. Explain about the biological significance of cAMP.
75. Mechanism of enzyme action.
76. Glycogen storage diseases
77. Biochemical functions of insulin.
78. Genetic code and its features.
79. Determination of sodium in serum.
80. What is dehydration? Write the different types of dehydration.
81. What are inhibitors? Classify them with suitable example.
82. Uncouplers.
83. Endocrine disorders of Thyroid gland and adrenal glands.
84. Urea Clearance Test.
85. What is Mutation? Write the different types of Mutation.
86. What is blood buffer? Write the different types of blood buffer system.
87. Porphyrias.
88. Biological Significance of cyclic AMP.
89. Write any one metabolism of Amino Acid.
90. Write a note on Co-enzyme and its functions.

91. Glucogenolysis.
92. ATP-ADP Cycle.
93. Explain in detail about ATP and its biological significance
94. Oxidative Phosphorylation.
95. Explain the Vanden Bergh reaction.
96. Lipoproteins.
97. What is Dehydration? Write the different types of Dehydration.
98. Write a short note on Clearance tests.
99. Iso enzymes and their clinical significance.
100.   Galactose tolerance test.
101.   Jaundice.
102.   Creatinine clearance test.
103.   Explain any one immuno chemical technique.
104.   Production of ATP
105.   Determination of HDL Cholesterol in serum.
106.   β – oxidation of fatty acids.
107.   Degradation of Purine.
108.   Reversible enzyme inhibition.
109.   Biological significance of cyclic – Adenosine Monophosphate (c-AMP).
110.   Jaundice.
111.   Bilirubin.
112.   Role of electrolytes in the body.
113.   Diabetic keto acidosis.
114.   Lipoproteins.
115.   Transaminases and their clinical significance.
116.   Genetic code.
117.   Hyperbilirubinemia.
118.   Oxidative phosphorylation.
119.   Normal functions of Kidney.
120.   Define and classify co-enzymes with examples.
121.   Fatty liver.
122.   HMP shunt.
123.   Atherosclerosis.
124.   Give the reactions of Urea cycle.
125.   Enzyme linked Immunosorbent assay.
126.   Write the conversion of Cholesterol into bile acids.
127.   Write note on Active transport with examples.
128.   Give a short note about Diabetes mellitus.
129.   Abnormal Constituents of Urine.
130.   Jaundice.
131.   Any one immunochemical test.
132.   GTT.
133.   Genetic code.
134.   Metabolic disorder of amino acids
135.   Hormonal regulation of lipid metabolism.
136.   Significance of uncoupling.
137.   Write a note on Deamination.

138.   Galactose tolerance test with its significance.
139.   Protein turn over.
140.   Write a brief note on Water and Electrolyte balance and imbalance.

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