List of Model Short Question For MBBS 2017 Batch

General

1. Fluidic Model of Cell membrane
2. Type and Example of Transport mechanism.
3. Amphibolic role of TCA cycle
4. Chemi-osmotic hypothesis
5. Electro-transport Chain
6. Blood Buffers
7. Renal mechanism for Acid Base balance
8. Defination & Interpretation of Anion Gap
9. Cause and Interpretation of Metabolic and Respiratory acid-base alteration By arterial blood gas analysis
10. Principle, Type and utility of Electrophoresis.
11. Principle, Type and utility of ELISA.
12. Principle and utility of Colorimeter
13. Biochemical changes in Liver, Adipose tissue and muscle in fasting.
14. Biochemical changes in Liver, Adipose tissue and muscle in well fed state.

Carbohydrate

15. Mucopolysaccharide (Glycosamino glycans)
16. Digestion & absorption of Carbohydrate
17. Lactose intolerance
18. Energy production of Glycolysis
19. Von Gierke's Disease
20. Regulation of Gluconeogenesis
21. Significant of HMP Shunt pathway
22. Significant of NADPH
23. Role of Glutathione & NADPH for maintain RBC membrane
24. Effect of Alcoholism on gluconeogenesis as well as on beta oxidation of fatty acid.
25. Polyol pathway and it's significant
26. Diagnosis of Diabetes Mellitus
27. Metabolic alteration in Diabetes Mellitus
28. Acute and Chronic complication of Diabetes Mellitus
29. Biochemical explanation of Diabetic Ketoacidosis
30. Define and significant of Glycated (HbA1c) haemoglobin
31. Advance Glycated End product

Lipid

32. Lipid digestion –absorption.
33. Rancidity of Fatty acid
34. Liposome & Micelle
35. Digestion and absorption of lipid
36. Function of Phospholipids
37. Role of phospholipid in signal transmission

38. Eicosanoids
39. Formation of eicosanoids and explain its inhibitor with significance.
40. Significant and Regulation of Cholesterol.
41. Risk factor for Atherosclerosis
42. Type and Function Lipoproteins
43. Type and function of Apo- lipoproteins
44. Pathogenesis of atherosclerosis in context of Oxidized LDL
45. Cause of Fatty liver
46. Name the Lipotrophic Factor. Explain it's effect.
47. Type and differentiation of Oxidation of Fatty acid.
48. Beta Oxidation of Long Chain Saturated fatty acid.
49. Energy production of saturated even chain fatty acid
50. Carnitine shuttle
51. Metabolism of HDL
52. Metabolism of LDL

Protein and Amino acid

53. Name and defination of Essential & Semi-essential Amino acid
54. Zwitter ion
55. Type of Structure of Protein
56. Exaplain Protein Primary Structural –functional relationship with Example of Insulin & Haemoglobin.
57. Define Chaperon & Prion protein.
58. Define Protein Denaturation. Give It's significant & causative factor.
59. Digestion & Absorption of Protein
60. Fates of Tyrosine & Phenlyalanine & it's related disorder.
61. Biochemical explanation of Phenylketonuria.
62. Biochemical explanation of Albinism & Alkaptonuria.
63. Fates of Tryptophan & it's related disorder.
64. Functional classification of protein.
65. Role of 2-3 BPG on oxygen diffusion-dissociation and effect during hypoxia
66. Molecular and Biochemical explanation for pathogenesis of Sickle cell disease
67. Molecular and Biochemical bases of Thalassemia.
68. Define and explain cause & effect of Met-haemoglobinemia
69. Define Porphyria. Explain Causes, Clinical Feature and diagnosis of Acute intermittent porphyria and Congenital erythropoietic porphyria.
70. Developmental changes in Hemoglobin gene expression from intrauterine life to adult.
71. Mechanism of the Bohr effect
72. Peripheral detoxification of Ammonia (Nitrogen disposal) through GDH and Alpha ketoglutarate
73. Transport and Detoxification of Ammonia
74. Haemoglobin degradation (Billirubin formation) and explain it's related disorder.
75. Type of Congenital Jaundice
76. Types , Causes and differentiation by serum and urine examination of Jaundice.

Enzyme

77. Define Co-Enzyme & Co-Factor. Give Example.

78. Diagnostic importance of isoenzyme
79. Enumerate Liver Function Test & Write it's significant.
80. Enumerate Cardiac Function Test & Write it's significant.
81. Write and Explain Factor affecting enzyme activity with example.
82. Type of Enzyme Inhibition. Explain with example.
83. Difference between Competitive inhibition and Non- Competitive inhibition.
84. Explain Difference in Function of Glucokinase and Hexokinase on bases of it's Vmax and Km.

Nutrition & Vitamin

85. Assessment of obesity.
86. Difference between Kwashiorkor & Murasmus
87. Factor affecting Basal Metabolic Rate
88. Clinical significance of Dietary fibre
89. Metabolism, Function and Clinical significance of Vitamin D
90. Folate trap
91. Mucosal block theory of iron absorption.
92. Function of Vitamin B12.
93. Effect of Warfarin & Dicoumarol on Vitamin K metabolism

Molecular

94. Type and Watson & Crick Model of DNA
95. Molecular basis of Sickle cell anaemia.
96. Name & role of the component of the DNA replication fork
97. DNA repair mechanism.
98. Define Telomer & Telomerase. It's significant
99. t-RNA.
100. Degeneracy & wobbling phenomena
101. Effect and Type of Mutation with example.
102. Initiation of Transcription
103. Post-transcription modification.
104. Post translation modification.
105. Genetic codon
106. Lac operon
107. Procedure & Significant of PCR
108. Significant of RFLP in diagnosis of Sickle cell disease
109. Microarray
110. Salvage pathway of Purine synthesis
111. Lysch Nyhan Syndrome
112. Primary & Secondary cause of Hyperuricemia (Gout)