

List of Model Justification

General

1. Oral rehydration solution is made up of glucose and sodium both.
2. Hyperkalemia can occur in Metabolic acidosis.
3. Proteolytic enzymes are released in zymogen form.
4. "TCA cycle is amphibolic in nature"
5. Cigarette smokes is injuries to health of lungs
6. Blood Buffers act quickly but not permanently.
7. 2,4 - dinitrophenol (uncoupler) leads to thermogenesis.
8. Brown adipose tissue promotes thermogenesis.
9. Diarrhea cause normal anion gap acidosis.
10. Carbohydrate are essential for the metabolism of fat.

Carbohydrate

11. Flouride is used as preservative for blood sample for glucose estimation.
12. In absence of O₂, glycolysis can not continue if there is no formation lactic acid.
13. Uncontrolled diabetes mellitus leads to neuropathy and retinopathy.
14. To maintain blood glucose after meal,Glucokinase play important role than hexokinase.
15. Glycerol is used in enema.
16. Acarbose is used in treatment of diabetes mellitus.
17. Structure of proteoglycan is well suited for its function.
18. During sprint there is extra yeild of ATP from anaerobic acid glycolysis.
19. In acute myocardial infarction,there is elevation of lactic acid in cardiac myocyte.
20. Lactase enzyme deficiency cause diarrhea after milk ingestion.
21. Human can not digest cellulose.
22. Pancreatitis leads to steatorrhea.
23. Sucrose is non- reducing.
24. Diabetic patients are more prone to Atherosclerotic disease.
25. Fasting blood sample is require for complete lipid profile evaluation.
26. Sucrose is called "invert sugar".
27. Although no ATPs are formed in HMP shunt pathway, it is important for RBCs.
28. "Alcohol inhibit gluconeogenesis,so it causes hypoglycemia,if person is on starvation." explain it.
29. Acute alcoholism can trigger gouty arthritis.
30. Muscle glycogen cannot be utilized directly for energy purpose
31. Dextran is used as plasma volume expander.
32. Muscle glycogen cannot contribute to blood glucose.

33. G6PD deficiency causes hemolysis
34. G6PD deficient patients are resistant to falciparum malaria.
35. Primaquine administration in G6PD deficient patients can precipitate hemolytic anaemia.
36. Insulin is used to correct hyperkalemia.
37. Patients of IDDM have more risk of diabetic ketoacidosis than NIDDM.
38. Cataract is more common in diabetes mellitus.
39. Estimation of C-peptide is a better parameter to differentiate IDDM & NIDDM.
40. Although no ATPs are formed in the HMP shunt pathway, it is important for RBCs.
41. For estimation of blood sugar, blood is collected in a fluoride bulb.
42. Hyaluronidase is called a spreading factor.

Protein & Amino acid

43. HbS moves slower than HbA in alkaline gel electrophoresis.
44. 2,3 BPG decreases the affinity of oxygen for hemoglobin.
45. Phenobarbitone precipitates acute intermittent porphyria.
46. Lead inhibits heme synthesis.
47. Photosensitivity does not occur in acute intermittent porphyria.
48. Glucose is given in the treatment of acute intermittent porphyria.
49. Blue fluorescent light is useful in the treatment of neonatal jaundice.
50. Histidine & Arginine are semi-essential amino acids.
51. Zwitter ions have no mobility in an electrical field.
52. Zwitter ions have minimum buffering & solubility capacity.
53. Ammonia is toxic to the brain.
54. Tyrosine becomes an essential amino acid for patients of phenylketonuria.
55. Fibrinogen estimation cannot be done in serum.
56. Hepatic failure leads to coma.
57. Peptide bond is called a semi double bond.
58. Glycine is optically inactive.
- 59.** Creatine is used to improve athletic performance.
60. Increase in the level of Homocysteine increases the risk of atherosclerosis.
61. MAO inhibitors are used in patients of depression.
62. In Carcinoid syndrome, patients may suffer from pellagra.
63. Glutamate is used in the management of hepatic- uremic coma (hepatic encephalopathy).
64. Vitamin B12 deficiency causes methyl-malonic aciduria.
65. Alpha 1 anti-trypsin deficiency causes emphysema.
66. "Haemoglobin is a good blood buffer".
67. 2-3 BPG concentration is higher in patients of COPD and cyanotic heart disease.
68. Excessive use of barbiturates causes anemia.
69. Lead poisoning leads to anaemia.

70. Tyrosine becomes an essential amino acid for patients of phenylketoneuria.

71. Proline does not allow to form alpha helix.

Lipid

72. Oxidized LDL is important in pathogenesis of atherosclerosis.

73. Eicosanoids are not true hormone.

74. The inhibition of COX-1 can be overcome in endothelial cells but not in platelets while patient is taking low dose Aspirin.

75. Anti-inflammatory action of aspirin is reversible, but anti-platelet action is irreversible.

76. LDL is metabolised via the LDL receptor.

77. HDL is involved in "Reverse Cholesterol Transport"

78. Deficiency of Lipoprotein lipase results in hypertriglyceridemia

79. Lingual lipase is important in lipid digestion in neonate.

80. Orlistat (pancreatic and hepatic lipase inhibitor) treatment is supplemented with lipid soluble vitamins.

81. Unsaturated cis-fatty acids decrease fluidity of membrane.

82. In a patient with lipoprotein lipase deficiency, creamy layer is seen on the top of serum.

83. High HDL level is decrease risk of coronary heart disease.

84. Linoic acid and linolenic acid are essential fatty acid.

85. Sunflower oil (Omega-3 & Omega-6 fatty acid) decrease risk of atherosclerosis.

86. LDL increase risk of atherosclerosis.

87. Rancidity of fatty acid increase risk of atherosclerosis.

88. Snake bite causes severe haemolysis of RBCs.

89. Carnitine deficient are advised to take diet, containing medium chain fatty acid.

90. Carnitine deficient can suffer from severe hypoglycemia.

91. Pre-mature baby can suffer from Acute Respiratory Distress Syndrome.

92. Orlistat is use as Anti-Obesity agent.

93. Heparin is known as clearing factor

94. Bile salts are detected in the urine of obstructed jaundice

95. Explain "Statin is use in treatment of hypercholesterolemia"

96. Eicosapentaenic acid and docosahexaenoic acids in food are good for health.

Enzyme

97. "CK-MB is more significant marker than LDH & S.GOT for diagnosis of Myocardial infarction" explain it.

98. Sudden withdrawal of statin drugs can cause hypercholesterolemia.

99. Aspirin cause suicide inhibition.

100. Ethanol is use as antidote in methanol poisoning.

101. Explain "Allopurinol use in gouty arthritis"

Nutrition & Vitamins

102. Folic acid supplementation is essential in pregnancy.
103. Vitamin- D deficiency does not cause Tetany.
104. Oral iron tablets are advised to take along with glass of lemon water.
105. Vitamin B12 deficiency cause pernicious anemia
106. A single intramuscular dose of Vitamin K is given to All newborns.
107. Folic acid and Vitamin b12 are given together in treatment of megaloblastic anemia
108. Pellagra can occur in carcinoid syndrome..
109. Oedema occurs in Kwashiorkor.
110. "Vitamin C deficiency cause Scurvey" Explain it.
111. Pyridoxal phosphate deficiency can cause pellagra.
112. Vitamin D is consider as hormone.
113. Niacin deficiency alone can not cause pellagra.
114. Vitamin B 12 deficiency leads to folate trap.
115. Pellagra can occur due Tryptophan or pyridoxine (Vitamin B6) deficiency.
116. Haemolysed blood sample is not suitable for potassium estimation.

Molecular

117. "Mutations are always harmful." True or Flase, Explain it.
118. Genetic code is degenerate.
119. Decrease activity Telomerase can be a one of the reason of aging.
120. Telomerase inhibitors can be use in treatment of malignancy.
121. UV radiation can cause Xeroderma pigmentosum (skin cancer).
122. HGPRT deficiency (Lesch – Nyhan Syndrome) cause hyperuricemia.
123. Replication is semi-conservative.
124. RNA can function as a genetic material.
125. Genetic code is universal.
126. Allopurinol is use to prevent re-perfusion injury .
127. Methotrexate (Folic acid analogues) is used to treat neoplastic disease.
128. Adenosine deaminase deficiency cause severe immuno-deficiency disorder.
129. 5-flurouracil cause suicide inhibition.
130. Lactase enzyme gene is not transcribed in presence of both glucose & lactose, in prokaryotes.
131. Low iron concentration increase synthesis of transferritin and decrease synthesis of ferritin.