

**BDS FIRST PROFESSIONAL EXAMINATION 2007
BIOCHEMISTRY (MCQs)
MODEL PAPER**

Time: 30 Minutes.

Maximum Marks: 21

- 01. A Patient has Complaint of Dyspnoea on Exertion which is not Abated by use of Nebulizers. He fears to go into Bronchospasm. If the Bronchospasm in this Patient will Not be Rectified, what is the Likely Result?**
- The Patient will go into Metabolic Acidosis.
 - The Patient will go into Respiratory Alkalosis.
 - The Patient will go into Metabolic Alkalosis.
 - The Patient will go into Respiratory Acidosis.
 - Nothing will happen.
- Key: d**
- 02. We have been Observing a Case of Chronic Renal Failure. The Patient has Registered Complete Anuria for Long. What is Most Likely Complication Expected in This Case?**
- The Patient is Likely to register Metabolic Alkalosis.
 - The Patient is Likely to register Pulmonary Acidosis.
 - The Patient is Likely to register Metabolic Acidosis.
 - The Patient is Likely to register Pulmonary Alkalosis.
 - The Patient can not go into any Acid Base Abnormality.
- Key: c**
- 03. The Most Severe Complication Expected in Uncontrolled Diabetes Mellitus Patients are which of the Following?**
- Hypoglycaemia.
 - Hyponatremia.
 - Hyperuricaemia.
 - Persistent Hyperglycaemia.
 - Ketoacidosis.
- Key: e**
- 04. Amongst the Following Haemoproteins which one is supposed to Bind More Strongly with Oxygen?**
- Adult Haemoglobin.
 - Haemosidrin.
 - Foetal Haemoglobin.
 - Myosin.
 - Myoglobin.
- Key: c**
- 05. A Patient has Elevated Level of Serum Unconjugated Bilirubin While his Total and Conjugated Bilirubin Levels are Normal. Which of the Following is Related to this Clinical Finding?**
- It is a Case of Hepatic Jaundice.
 - It is a Case of Pre Hepatic Jaundice.
 - It is a Case of Post Hepatic Jaundice.
 - It is a Case of Thalassemia Major.
 - It is a Case of Polycythemia.
- Key: b**

**BDS FIRST PROFESSIONAL EXAMINATION 2007
BIOCHEMISTRY (MCQs)
MODEL PAPER**

06. Which one of the Following Condition Does NOT lead to Anaemia?

- a. Deficiency of Vitamin C.
- b. Deficiency of Copper.
- c. Deficiency of Iron.
- d. Deficiency of Zinc.
- e. Deficiency of Vitamin K.

Key: d

07. In Order to Determine the Sequence of a Polypeptide. Which is Best Coordination of Techniques?

- a. Precipitation → Tryptic Lysis → Polyacrylamide Gel Electrophoresis → Sanger Reaction.
- b. Edman Reaction → X Ray Differection Crystallography → Gel Electrophoresis.
- c. Sanger Reaction → Tryptic Lysis → Polyacrylamide Gel Electrophoresis.
- d. Tryptic Lysis → Polyacrylamide Gel Electrophoresis.
- e. Precipitation → Tryptic Lysis → X Ray Differection.

Key: a

08. Most of the Enzymes Secreted in Human Gastrointestinal Tract are;

- a. Oxidoreductases.
- b. Lyases.
- c. Hydrolases.
- d. Transferases.
- e. Ligases.

Key: c

09. The Primary Function of Salivary Amylase is designated to be;

- a. Hydrolysis of Dietary Starch.
- b. Hydrolysis of Bacterial Cell Walls.
- c. Hydrolysis of Dietary Glycogen.
- d. Hydrolysis of Mucopolysacchrides.
- e. Hydrolysis of Pectins.

Key: b

10. Which one of the Following is NOT a Regular Factor Effecting Velocity of Enzyme Catalyzed Reactions?

- a. pH.
- b. Substrate Concentration.
- c. Enzyme Concentration.
- d. Inhibitor.
- e. Temperature.

Key: d

**BDS FIRST PROFESSIONAL EXAMINATION 2007
BIOCHEMISTRY (MCQs)
MODEL PAPER**

- 11. A Cardiologist has requested an Array of Tests to Certify his Diagnosis for a Patient. The Test Battery will have which of the Following Enzyme Test in Protocol?**
- Alkaline Phosphatase.
 - γ -Glutamyl Transferase.
 - Creatine Phosphokinase.
 - Alanine Amino Transferase.
 - Aspartate Amino Transferase.

Key: c

- 12. The Gene Operation is Best Described by Lac Operon which is Authenticated by Which of the Following Sequence?**
- TATA Box \rightarrow Pribnow Box \rightarrow Repressor \rightarrow Promoter \rightarrow Operator \rightarrow lac Z gene \rightarrow lacY gene \rightarrow lac A gene.
 - Operator \rightarrow Promoter \rightarrow Repressor \rightarrow lac Z gene \rightarrow lacY gene \rightarrow lac A gene.
 - Operator \rightarrow Promoter \rightarrow Repressor \rightarrow lac Z gene.
 - TATA Box \rightarrow Pribnow Box \rightarrow Repressor \rightarrow Promoter \rightarrow Operator \rightarrow lac Z gene.
 - Pribnow Box \rightarrow Repressor \rightarrow Promoter \rightarrow Operator \rightarrow lac Z gene.

Key: a

- 13. Which of the Following are Metabolic Functions are Related to Hexose Monophosphate Shunt Pathway?**
- Ribose-5-Phosphate Synthesis, Fructose-6-Phosphate Synthesis and Reducing Equivalents for Cholestrogenesis.
 - Biosynthesis of Amino Acids, Formation of Acetyl CoA and ATP Production.
 - Formation of Lactate and Synthesis of Glyceraldehyde-3-Phosphate.
 - Formation of Glucuronate, Ascorbic Acid & Oxalates.
 - Biosynthesis of Unsaturated Fatty Acids and Ketone Bodies.

Key: a

- 14. Final Common Oxidative Pathway which Integrates Oxidative Products of Fats, Proteins and Carbohydrate is Also Known as;**
- Ketogenesis.
 - Glucuronic Acid Pathway.
 - Citric Acid Cycle.
 - Gluconeogenesis.
 - Anaerobic Glycolysis.

Key: c

- 15. In order to Exhibit its Function, Pancreatic Lipase is Required to Cross React with Triacylglycerols That are;**
- Free.
 - Bound to Mixed Micelles.
 - Attached with Mixed Micelles that are Bound to Colipase.
 - Present as Micelles.
 - Esterified.

Key: c

**BDS FIRST PROFESSIONAL EXAMINATION 2007
BIOCHEMISTRY (MCQs)
MODEL PAPER**

- 16. Protein Synthesis is a Designated Function of;**
- a. Thyroid Hormones.
 - b. Growth Hormones.
 - c. Insulin.
 - d. Cortisol.
 - e. Catecholamine.
- Key: c**
- 17. Largest Amount of Energy is Produced by Which of the Following Metabolic Sequence.**
- a. Anaerobic Glycolysis.
 - b. Aerobic Glycolysis.
 - c. β -Oxidation of Unsaturated Fatty Acids.
 - d. β -Oxidation of Saturated Fatty Acids.
 - e. Oxidation of Amino Acids.
- Key: d**
- 18. A Ricketic Patient would Best Respond the Treatment in One of the Following Way.**
- a. Therapeutic Doses of Vitamin D Only.
 - b. Therapeutic Doses of Vitamin D with Dietary Calcium.
 - c. Therapeutic Doses of calcium Only.
 - d. Therapeutic Doses of Vitamin C.
 - e. Therapeutic Doses of Vitamin C & Calcium.
- Key: b**
- 19. Which one of the Following Clinical Abnormalities are Recorded in Dietary Deficiency of B Complex Vitamins?**
- a. Scurvy.
 - b. Osteomalacia.
 - c. Pernicious Anaemia.
 - d. Haemolytic Anaemia.
 - e. Xerophthalmia.
- Key: c**
- 20. The Major Endocrine Stimulus for Haemopoiesis in the form of Erythropoietin Comes From;**
- a. Liver.
 - b. Pancreas.
 - c. Kidney.
 - d. Skin.
 - e. Hypothalamus.
- Key: c**
- 21. The Major Site of Formation of Bilirubin in Human Body is;**
- a. Liver.
 - b. Spleen.
 - c. Intestine.
 - d. Pancreas.
 - e. Kidney.
- Key: b**