

SCHOOL OF UNANI MEDICINE EDUCATION AND RESEARCH**JamiaHamdard 110062****M.D (MOALIJAT)I year Annual Examination (Nov-Dec 2019)****Paper No: MDM-101****KeemyaHayatiwaVirasiyat (Clinical Biochemistry and Genetics)****Time: Three hours****Maximum Marks: 75****Attempt all questions. All parts of a question must be attempted in continuation****SECTION A****Q1. Attempt any 10 of the following (Maximum 20 words for each) [2 X 10=20]**

- i. What is a peptide bond? Name the three aromatic amino acids.
- ii. What are lipids? State any two functions of lipids.
- iii. Discuss any three functions of carbohydrates.
- iv. How are enzymes different from inorganic catalysts?
- v. What are Epimers and Anomers? Explain with example.
- vi. What are essential fatty acids? Give examples
- vii. Differentiate between a nucleoside and a nucleotide.
- viii. Name the any three different forms of RNA. State their function
- ix. What is the normal range of blood sugar in adults?
- x. What is DNA fingerprinting?
- xi. Discuss the basis of any two types of genetic disorders.
- xii. What is the process of gene therapy?
- xiii. Discuss any three functions of proteins in humans.

[5X5=25]**SECTION B****Attempt any FIVE (Maximum 100 words for each)**

- Q2. State the characteristics of an enzyme. Define the active site.
- Q3. Discuss briefly about the functions of any four water soluble vitamins.
- Q4. Write the ten steps of glycolysis. How many net ATP's are formed during glycolysis?
- Q5. Discuss briefly trisomy 21.
- Q6. What is PCR? How is PCR used for mutation detection?
- Q7. What are the four main body fluids? Discuss.

[3X10=30]**SECTION C****Attempt any THREE (Maximum 300 words for each)**

- Q8. Write the different methods for enzyme assay. How is enzyme activity expressed?
- Q9. Write about the structure and types of DNA. What are the three main functions of DNA?
- Q10. Discuss in detail Lipid profile. What are the uses of cholesterol?
- Q11. Discuss the importance of polyadenylation and alternate splicing. Write about the Meselson and Stahl experiment for the semiconservative replication.
- Q12. Briefly describe and give one example each of in-born error of carbohydrate, protein and Lipid metabolism.