Roll No: .....

SCHOOL OF UNANI MEDICAL EDUCATION AND RESEARCH
Jamia Hamdard-110062
M.D (MOALIJAT) Ist year Annual Examination 2018
Paper No: MDM-101
Keemya Hayati wa Virasiyat (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

Attempt All (Maximum 20 words for each) (10 x 2 =20)

Q1. Answer in brief.

(a) Define a carbohydrate? What is the difference between D and L Glucose?
(b) What are the major groups present in the structure of an aminoacid? Name two basic amino acids?
(c) What is gene therapy? Name some diseases that can be corrected by gene therapy?
(d) Write four important characteristics for a molecule to serve as a genetic material?
(e) List the major difference between a DNA and RNA?
(f) What is the difference between Euploidy and Aneuploidy?
(g) Name the first enzyme of glycolytic pathway and which reaction does it catalyze?
(h) Name three important biochemical parameters in LFT?
(i) What is the chemical nature of the enzymes? What is the significance of active site?
(j) Give two application of a DNA based diagnostic probe?

SECTION- B

Attempt Any FIVE (Maximum 100 words for each) (5 x 5 =25)

Q2. Name the important steps involved in the detoxification of ammonia in urea cycle?
Q3. Name different enzymes involved in DNA replication. Why is a Primer required?
Q4. Define Lipids and classify them with suitable examples?
Q5. Give an account of RDA, sources and deficiencies of vitamin A and Vitamin D
Q6. What is gene mutation? Give its types.
Q7. Define Enzyme activity? Differentiate between Direct Assays and Coupled Assays.

SECTION-C

Attempt Any THREE (Maximum 300 words for each) (3 x 10 = 30)

Q8. What is a polypeptide bond? Briefly explain the differences between primary, secondary and tertiary structure of proteins. Cite examples.
Q9. What is Chargaff's rule? List the important features of Watson and Crick model of DNA.
Q10. Explain the structure and function of different types of RNA's.
Q11. Describe the important mechanism for blood glucose regulation.
Q12. What is the difference between autosomal and sex chromosomal disorders? Cite three examples each.
Q13. What is a promoter? Briefly explain the process of protein synthesis.