

1/2020

Your Roll No.....

School of Unani Medical Education & Research

M.D. (MOLAJAT) I YEAR ANNUAL EXAMINATION, 2020

Paper- MDM-101

Keemiyae Hayati wa Virasiyat (Biochemistry and Genetics)

Time: Three Hours

Maximum Marks: 75

(Write Roll No at the top immediately on receipt of this question paper)

Attempt all questions. All parts of question must be attempted in continuation

Section-A (2 X 10 = 20 Marks)

Answer in brief (up to 20 words)

- (a) Name the aromatic amino acids
- (b) Differentiate between starch and glycogen.
- (c) Name two lipids that do not contain fatty acids.
- (d) State the four hierarchies of structure in proteins.
- (e) Define enzyme.
- (f) What is the S.I unit of Enzyme activity?
- (g) Depict nucleotides and nucleosides diagrammatically.
- (h) What is semi conservative replication?
- (i) Name three vitamins and their co enzyme form.
- (j) What is Down's syndrome?

Section -B (5 X 5 = 25 Marks)

Attempt any **FIVE**

Answer in upto 100 words

- a. Discuss the enzyme assays for diagnosis of acute myocardial infarction.
- b. Discuss any four biological functions of lipids.
- c. Discuss Edman Degradation for protein sequence determination.
- d. Exemplify how radioactivity may be used for enzyme assay.
- e. Discuss viral and non viral vectors for gene therapy.
- f. What is a Karyotype. Discuss the sex chromosomal abnormalities.
- g. State the characteristics of enzymes that differentiate them from inorganic catalysts.
- h. Write down the glycolytic pathway with emphasis on generation or utilization of energy currency.

2/2020

Section –C (3 X 10 = 30 Marks)

Attempt any **THREE**

Answer in upto 300 words:

- (a) Discuss the classification of lipids on the basis of structure and function.
- (b) Discuss the advantages of DNA based diagnostic probes over conventional methods. Discuss the functioning of PCR.
- (c) Discuss ECF and ICF. How is acid base balance maintained.
- (d) Differentiate between mRNA, rRNA and t RNA? Draw well labelled diagrams.
- (e) Name the six main classes of enzymes. What is Direct, Indirect and coupled enzyme assay? Discuss any two methods of enzyme assay.