

**MBBS I (First) Professional Examination 2015-16**

Course Code: MBS103

Paper ID: 0322242

**Biochemistry -II**

Time: 2 Hours 40 Minutes

Max Marks: 40

**Note:** Attempt all questions. Draw proper diagrams to support your answer.

**Part 'B'**

1. State dietary requirement, sources, absorption, transport, storage, functions, deficiency and toxicity manifestations of iron. (8)
2. Describe the process of replication in prokaryotes. Name two drugs inhibiting the enzymes of bacterial replication. (8)
3. Give an account of different laboratory investigations performed to assess liver function. (8)
4. Write short notes on the following: (4x4=16)
  - a) Essential fatty acids
  - b) Hormonal regulation of water and electrolyte balance
  - c) Regulation of blood calcium level
  - d) Biochemical functions of vitamin K

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Roll No.

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Student's Signature

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Student's Name

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Invigilator's Signature

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Course Code: MBS103

Biochemistry - II

Paper ID: 0322242

**Part 'A'**

Time: 20 Minutes

Max Marks: 10

- Note:**
1. Attempt all questions and return this part of the question paper to the invigilator after 20 Minutes.
  2. Please tick (✓) correct one only. Cutting, overwriting or any other marking are not allowed.
  3. For answering please use Ball- pen only.

Q.12 Which of the following is a semi essential

d) Phenylalanine.

FirstRanker's choice

- b. Asparagine  
c. Alanine  
d. Arginine

Q.3 Major cation of ICF is:

- a)  $\text{Na}^+$   
b)  $\text{K}^+$   
c)  $\text{Ca}^{2+}$   
d)  $\text{Mg}^{2+}$

Q.4 The normal concentration of sodium in plasma (mEq/L) is:

- a) 105-120  
b) 115-130  
c) 135-145  
d) 150-165

Q.5 Which of the following is a cause of hyponatremia:

- a) Cushing Syndrome  
b) Addison's disease  
c) Prolonged cortisone therapy  
d) Pregnancy

Q.6 Kayser-Fleischer ring is associated with abnormal metabolism of:

- a) Iron  
b) Iodine  
c) Copper  
d) Zinc

Q.7 Coenzyme involved in hydroxylation of proline and lysine in collagen synthesis is:

- a) Nicotinic acid  
b) Pantothenic acid  
c) Retinoic acid  
d) Ascorbic acid

Q.8 Erythrocyte transketolase activation can be used for assessing nutritional status of:

- a) Thiamine  
b) Riboflavin  
c) Niacin  
d) Pyridoxine

d) Hay's test

Q.17 The only fat-soluble vitamin that has coenzyme function:

- a) A  
b) D  
c) E  
d) K

Q.18 Thermogenic action of food is highest for:

- a) Carbohydrates  
b) Fats  
c) Proteins  
d) Fibres

Q.19 The anion gap in normal health is about (mEq/L):

- a) 6-12  
b) 12-18  
c) 18-24  
d) 24-30

Q.20 The normal pH of blood has a range of:

- a) 7.15-7.25  
b) 7.25-7.35  
c) 7.35-7.45  
d) 7.45-7.55

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Q.10 Which one of the following is involved in primary immune response:

- a) IgG  
b) IgM  
c) IgD  
d) IgE

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P.T.O.

Q.11 Largest in size among all immunoglobins (Igs) is:

- a) IgM  
b) IgA  
c) IgD  
d) IgE

Q.12 Pyridoxal phosphate is the coenzyme of:

- a)  $\text{B}_1$   
b)  $\text{B}_2$   
c)  $\text{B}_6$   
d)  $\text{B}_{12}$

Q.13 Xeroderma pigmentosum occurs due to defective:

- a) Mismatch repair  
b) Base excision repair  
c) Nucleotide excision repair  
d) Double strand break repair

Q.14 All are characteristics of genetic code except:

- a) Universality  
b) Specificity  
c) Overlapping  
d) Degeneracy

Q.15 All of the following are phase-II reactions except:

- a) Conjugation  
b) Sulfation  
c) Acetylation  
d) Hydrolysis

Q.16 All of the following are used to detect bile pigments in urine except:

- a) Fouchet's test  
b) Ehrlich's test  
c) Gmelin's test