



MN-4005

First Year M. B. B. S. Examination

December - 2013

Biochemistry : Paper - I

Time : Hours]

[Total Marks : 50

Instruction :

नीचे दशावेक निशानीवाणी विगतो उत्तरवही पर अवश्य बजनी.
Fillup strictly the details of signs on your answer book.

Name of the Examination :

Name of the Subject :

Subject Code No. : Section No. (1, 2,.....) :

Seat No. :

Student's Signature

SECTION - I

Q-1. Write short notes (Any Two)

(8)

- 1) Write VLDL metabolism
- 2) Explain renal regulation of acid base balance.
- 3) Write significance and regulation of HMP shunt

Q-2. Describe in brief (Any Four)

(12)

- 1) Mucopolysachharides
- 2) Vitamin D
- 3) Obesity
- 4) Electron transport chain
- 5) Peculiarities of glycolysis in RBC.
- 6) Basal Metabolic Rate

SECTION -II

Q-3. Read the following case and answers the questions.

(10)

A 59 year old male visited to medicine OPD for regular follow up he is diabetic for last seven years. He complained about tingling and numbness in lower toes, a non-healing ulcer over left heel. His doctor told him that this is because of peripheral neuropathy. Recently he developed cataract. His blood reports are

Random plasma glucose level : 223 mg/dl, HbA_{1c} : 9.2 % (normal range 4.5 to 6 %)

- 1) What is the significance of glycated haemoglobin or HbA_{1c}
- 2) What is the cause of peripheral neuropathy
- 3) Why there is cataract in uncontrolled diabetes mellitus
- 4) What are the values of normal fasting and PP2BS levels?
- 5) Why fluoride is used as preservative in plasma glucose estimation?

Q-4. Answer in few lines (Any Five)

10

- 1) Vitamin C deficiency causes scurvy
- 2) Oral rehydration solution contains glucose as well as sodium chloride.
- 3) HDL cholesterol is good cholesterol.
- 4) Premature Baby may have Respiratory Distress Syndrome.
- 5) Kwashiorkor leads to edema.
- 6) Sucrose is non-reducing sugar
- 7) Dietary fibres are good for health.



Date of issue : Centre :
Sup. Sign. : Seat No. :

MN-4006-O
First Year M. B. B. S. Examination
December - 2013
Biochemistry : Paper - II

Time : 10 Minutes] [Total Marks : 10

OBJECTIVE QUESTIONS

Instruction :

नीचे दृष्टवित निशानीवाणी विगतो उत्तरवही पर अवश्य कृपवी.
Fillup strictly the details of signs on your answer book.

Name of the Examination :
F. Y. M.B.B.S.

Name of the Subject :
Biochemistry-2

Subject Code No. : 4 0 0 6 Section No. (1, 2,.....) : Nil

Seat No. :

Student's Signature

1 MCQs : 10

- (i) Pyridoxal phosphate is required as a coenzyme in:
- (a) Transamination
 - (b) Transulphuration
 - (c) Deamination
 - (d) Transketolation
- (ii) Polymerase Chain Reaction technique is used to get
- (a) Several copies of DNA
 - (b) Several copies of m-RNA
 - (c) Several copies of t RNA
 - (d) To amplify peptides
- (iii) Thiamine is a
- (a) Nuclearbase
 - (b) Nucleoside
 - (c) Water soluble vitamin
 - (d) None of above

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[Contd...

- (iv) One of the following is NOT a urea cycle enzyme
- (a) Carbamoyl phosphate synthase-1
 - (b) Arginosuccinase
 - (c) Carbamoyl phosphate synthase-2
 - (d) Arginase
- (v) Edema is a feature of all of the following EXCEPT
- (a) Kwashiorkor
 - (b) Marasmus
 - (c) Nephrotic syndrome
 - (d) Albuminuria
- (vi) Non- competitive inhibitors
- (a) Increase K_m
 - (b) Increase V_{max}
 - (c) Decrease K_m
 - (d) Decrease V_{max}
- (vii) Vitamin K is required for γ gamma:
- (a) Methylation of glutamate
 - (b) Carboxylation of glutamate
 - (c) Methylation of glycine
 - (d) Carboxylation of glycine
- (viii) All of the following are positive acute phase reactant EXCEPT:
- (a) C - reactive protein
 - (b) Fibrinogen
 - (c) Albumin
 - (d) Alpha 1 antitrypsin
- (ix) Most prominent DNA damage by UV light is
- (a) Double strand breakage
 - (b) Base substitution
 - (c) Purine dimer
 - (d) Pyrimidine dimer
- (x) Highest amount of intra-chain base pairing is observed in
- (a) t-RNA
 - (b) r-RNA
 - (c) m-RNA
 - (d) si-RNA



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Date of issue : Centre :
Sup. Sign. : Seat No. :

JJ-4006-O
First Year M. B. B. S. Examination
June - 2013
Biochemistry : Paper - II

Time : 10 Minutes]

[Total Marks : 10

OBJECTIVE QUESTIONS

Instruction :

नीचे दशांशव - निशानावाणी विगतो उत्तरवही पर अवश्य कपवी.
Fillup strictly the details of signs on your answer book.

Name of the Examination :
F. Y. M.B.B.S.

Name of the Subject :
Biochemistry-2

Subject Code No. : 4 0 0 6 Section No. (1, 2,.....) : Nil

Seat No. :

Student's Signature

- 5 MCQ(no negative marking) Choose single best answer 10
- 1 Following can be stored in body in quantity sufficient to last few years :
- (a) Vitamin B₁
 - (b) Vitamin C
 - (c) Vitamin B₁₂
 - (d) Vitamin B₆
- 2 A patient has had a series of blood clots, and has been placed on warfarin to reduce such incidents. Warfarin exerts its effect by blocking which of the following ?
- (a) Platelet biogenesis
 - (b) Phospholipid synthesis
 - (c) Clotting factor protein synthesis
 - (d) Formation of γ -carboxyglutamate

- 3 A 42-year-old woman presents with tiredness and lethargy. She has tingling in her hands and feet. Blood work shows a macrocytic anemia, along with elevated homocysteine levels. One would also expect to see elevated levels of which metabolite?
- (a) Ketone bodies
 - (b) Methylmalonic acid
 - (c) Propionic acid
 - (d) Succinate
- 4 Most prominent DNA damage by UV light is
- (a) double strand breakage
 - (b) base substitution
 - (c) pyrimidine dimer
 - (d) purine dimer
- 5 Oncogenes commonly code for all except
- (a) growth factors
 - (b) growth factor receptors
 - (c) tyrosine kinase
 - (d) proteins involved in DNA repair
- 6 Hemopexin binds to
- (a) Free Heme
 - (b) oxidized Hemoglobin
 - (c) Free Iron
 - (d) reduced hemoglobin
- 7 When DNA point mutation occur, following is transversion,
- (a) A->T
 - (b) A->G
 - (c) C->T
 - (d) C->U
- 8 Niacin can be formed from
- (a) Thiamine
 - (b) Threonine
 - (c) Tyrosine
 - (d) Tryptophan

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- 9 Non competitive inhibitors :
- (a) Increase K_m
 - (b) Do not affect V_{max}
 - (c) Decrease K_m
 - (d) Decrease V_{max}

- 10 Pyridoxal phosphate is required as a coenzyme in :
- (a) Transamination
 - (b) Transulphuration
 - (c) Deamination
 - (d) Transketolation