



RAN-1806000101030002

RAN-1806000101030002

1st Year M.B.B.S. Examination

November / December - 2019

Biochemistry

Theory Examination : Paper - 2

સૂચના : / Instructions

(1)

નીચે દર્શાવેલ નિશાનીવાળી વિગતો ઉત્તરવહી પર અવશ્ય લખવી.

Fill up strictly the details of signs on your answer book

Name of the Examination:

1st Year M.B.B.S.

Name of the Subject :

Biochemistry Theory Examination : Paper - 2

Subject Code No.: 1806000101030002

Seat No.:

--	--	--	--	--	--

Student's Signature

Section - 1

Q-1 Short notes (2 out of 3)

08 marks

- Protein structure
- Protein biosynthesis in eukaryotes
- Hemoglobinopathies

Q-2 Describe in brief (4 out of 6)

12 marks

- Detoxification
- Enzymes of diagnostic importance
- Factors affecting enzyme activity
- RFLP
- Competitive enzyme inhibition
- Post translational modification of protein

Q-3 Answer in one or two lines (5 out of 6)**05 marks**

- a) Biological function of selenium
- b) Urea cycle in starvation
- c) Medical use of PCR.
- d) List properties of genetic code
- e) Glutathione , Insulin , Pre-pro insulin (arrange in increasing order of size)
- f) Biosynthesis of Alanine and aspartic acid

Section - II**Q-4 Clinical Case with 5 questions****10 marks**

A 45 year old man presented with severe pain and weakness.

He had lost 8 kg weight in three months. History revealed that he suffered from facial palsy two months back The X ray skull revealed punched out lesions.

His bone marrow biopsy showed an excess of plasma cells.

His serum total protein was 10 gm/dL and Albumin was 2.6 gm/dL.

Serum electrophoresis showed sharp abnormal band between beta globulin and gamma globulin. On Immunofixation, the sharp band was found to be made up of IgM with kappa light chain. Free kappa light chain were very high as compared to free lambda chain in serum. Multiple myeloma was diagnosed. Treatment with proteasome-inhibitor (Bortezomib) and Thalidomide-group of drugs was started.

- a) Find A/G ratio in the patient. Comment on serum albumin, globulin and A/G ratio in the patient?
- b) Explain what is kappa and lambda light chain?
- c) Write physiological function of cell involved in Multiple myeloma?
- d) Write function of proteasome in cell?
- e) Write principle of electrophoresis.

Q-5 Answer in few lines(5 out of 7)**10 marks**

- a) Folate inhibitors are prescribed in cancer therapy.
- b) Urobilinogen is absent in urine of obstructive jaundice.
- c) Glycine is optically inactive.
- d) Activity of urea cycle is increased in starvation.
- e) At high altitude, hemoglobin has lower affinity to oxygen.
- f) Dietary fibers are useful.
- g) Histidine in hemoglobin has very important function

Q-6 Answer in one or two lines (5 out of 6)

05 marks

- a) Why iron is said to be “one way” element?
 - b) Xeroderma pigmentosum
 - c) Enhancer elements in DNA
 - d) Telomere and telomerase
 - e) Restriction endonuclease
 - f) Repair of Mismatched DNA
-

firstranker.com
www.FirstRanker.com