

5. A. Mention the various strategies used by immune system to discriminate between self and non-self-antigens.
- B. Give the specific name of the type of Anaemia caused by:
- early death of deformed RBCS.
 - due to lack of functional IF (intrinsic factor).
 - due to imbalance in the production of Haemoglobin chains.
 - due to point mutation of one of the amino acid residues in one of the types of haemoglobin chain.
- C. Compare the pathophysiology of Diabetes Mellitus Type I and Type II, highlighting key differences in mechanisms and disease progression. (5, 4, 6)
6. A. Describe the cause, symptoms and management of Hashimoto's thyroiditis.
- B. Write down the biochemical basis of Von Gierke disease. What are the major clinical symptoms of the disease?
- C. Explain biochemical cause of scurvy. Mention its important clinical symptoms. (5, 4, 6)

(200)

[This question paper contains 4 printed pages.]

Your Roll No.....

आपका अनुक्रमांक.....

Sr. No. of Question Paper : 3307

I

Unique Paper Code : 2494002005

Name of the Paper : Biochemical Correlation of Diseases

Name of the Course : B.Sc. (Hons.) Biochemistry

Semester : V

Duration : 2 Hours

Maximum Marks : 60

Instructions for Candidates

- Write your Roll No. on the top immediately on receipt of this question paper.
- There are 6 questions.
- Attempt any 4 questions.
- All questions carry equal marks. Question no. 1 is compulsory.

P.T.O.

1. A. State True or False. Justify your answer. (any 5)

- i. Patients suffering from AIDS usually die because of opportunistic infection.
- ii. Rheumatoid arthritis is an auto immune disease.
- iii. Patients suffering from Alkaptonuria should take high protein diet.
- iv. Infected male Anopheles mosquito causes malaria.
- v. Diabetes insipidus is an endocrine disorder.
- vi. Single vaccination shot for influenza provides lifetime immunity against it.

B. Give the causative agent, mode of transmission and symptoms of following diseases:

- i. AIDS Polio
- ii. Tetanus
- iii. Tuberculosis
- iv. Kala-Azar (7.5, 7.5)

2. A. Discuss the biochemical basis and major clinical symptoms of the following diseases:(any three)

- i. SLE
- ii. SCID

iii. Rickets

iv. Pellagra

B. The patients suffering from phenylketonuria have musty odour in sweat and urine and the colour of hair and skin is grey-white. Justify. (12, 3)

3 A. Discuss the stages and factors affecting the development of an atherosclerotic plaque with the help of a suitable diagram. Comment on its clinical manifestations.

B. What are the main challenges in developing a conventional vaccine against HIV?

C. Justify the following statements:

i. Goitre is seen in Hashimoto's thyroiditis.

ii. Polio has been eradicated worldwide.(6,5,4)

4. Differentiate between the following:

i. Grave's disease and Myasthenia gravis

ii. Dry beri-beri and Wet beri beri

iii. Antigenic shift and Antigenic drift

iv. Cori disease and Gaucher's disease

v.. Kwashiorkor and Marasmus (15)