

SL No of QP 13320

Unique Paper Code : 2494002005
Name of the course : B.Sc. (Hons.) Biochemistry (NEP)
Name of the Paper : Biochemical Correlation of Diseases
Semester : VII
Duration : 2 hours
Maximum Marks : 60 marks

Instructions for Candidates

There are 6 questions.

Attempt any 4 questions. All questions carry equal marks.

Question no. 1 is compulsory.

1a) Comment on the following statements:

- i. Urine of alkaptonuria patients turns black on standing.
- ii. Goitre is developed in Hashimoto's thyroiditis.
- iii. Rheumatoid arthritis is an autoimmune disease.
- iv. Vaccines are used for prevention of disease development.
- v. Edema can help to distinguish between Marasmus and Kwashiorkor
- vi. Patients suffering from beri-beri disease can die due to heart attack.

(6x2=12)

b) What is the importance of:

- i. PPD in Mycobacterial infection
- ii. CD4 T cells in AIDS
- iii. HA in influenza virus

(3)

2a) Elaborate on 4D's of Pellagra

b) Write down the cause, pathophysiology and symptoms of Cushing's disease.

c) How does HIV infect a person; which disease is developed and how?

(5x3=15)

3. Differentiate between the following:

- a) Phenylketonuria and Alkaptonuria
- b) Systemic lupus erythematosus and Myasthenia gravis
- c) Gauchers disease and Von Gierke disease

(5x3=15)

3a) Mention the causative agents and route of infection of the following diseases. Also mention the symptoms of each of these diseases.

- i. Tetanus
- ii. Malaria
- iii. Polio
- iv. Tuberculosis
- v. Kala Azar

(2x5 =10)

b) Describe the cause, symptoms and management of Grave's disease.

(5)

4A. Explain the biochemical basis of the following:

- i) 4Ds of Pellagra
- ii) Polyuria in diabetes insipidus
- iii) Gout in GSD I patients
- iv) Granuloma formation in tuberculosis

B. What are vaccines? How do they help in prevention and progression of disease?

(12,3)

5A. Explain the biochemical basis for the following symptoms:

- i) Bow legs in rickets
- ii) Bleeding gums in scurvy
- iii) Anemia in iron deficiency
- iv) Goitre in Hashimoto's thyroiditis

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

- i. AIDS
- ii. Covid-19

(12,3)

6. Differentiate between the following:

- i) Phenylketonuria and Alkaptonuria
- ii) Antigenic shift and drift
- iii) Myasthenia Gravis and Grave's disease
- iv) Von Gierke and Cori disease
- v) Wet and Dry Beriberi

(3x5=15)