



UNIVERSITY OF THE PUNJAB

Seventh Semester – 2019

Examination: B.S. 4 Years Program

Roll No. in Fig.

Roll No. in Words.

PAPER: Bio Chemistry (Sp. Theory-II)
Course Code: CHEM-419 Part-I (Compulsory)

MAX. TIME: 15 Min.
MAX. MARKS: 10

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Signature of Supdt.:

Attempt this Paper on this Question Sheet only.

Please encircle the correct option. Division of marks is given in front of each question.

This Paper will be collected back after expiry of time limit mentioned above.

Q.1. Encircle the right answer, cutting and overwriting is not allowed. (1x10=10)

1. Myoglobin functions as:

- a. Reservoir of Oxygen
b. Oxygen Carrier
c. Both a & b
d. None of the above

2. Protein that actively participates in cell adhesion and cell migration is called:

- a. Elastin
b. Albumin
c. Fibrillin
d. Fibronectin

3. The second most abundant Ig is:

- a. IgM
b. IgA
c. IgG
d. IgE

4. IgM is a:

- a. Pentamer with 10 antigen binding sites
b. Tetramer with 8 antigen binding sites
c. Monomer with 2 antigen binding sites
d. Dimer with 4 antigen binding sites

5. The Ig that mediates allergic reaction is:

- a. IgM
b. IgE
c. IgA
d. IgG

6. Fab stands for:

- a. Fragment antibody binding
b. Fragment antigen binding
c. Fragment antigen or antibody binding
d. Fragment affinity binding

7. Which one of the following diseases is a communicable?

- a. Ricketts
b. Cholera
c. Diabetes
d. Scurvy

8. Scurvy disease is caused by the deficiency of vitamin

- a. Vitamin A
b. Vitamin D
c. Vitamin K
d. Vitamin C

9. The eluent strength is a measure of:

- a. Solvent adsorption energy
b. Solvent absorption energy
c. Solvent diffusivity
d. Solvent mixing index

10. HPLC stands for

- a. High Pressure Liquid Chromatography
b. High Performance Liquid Chromatography
c. both (a) and (b)
d. Highly Placed Liquid Chromatography



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PAPER: Bio Chemistry (Sp. Theory-II)

Course Code: CHEM-419 Part – II

MAX. TIME: 2 Hrs. 45 Min.

MAX. MARKS: 50

ATTEMPT THIS (SUBJECTIVE) ON THE SEPARATE ANSWER SHEET PROVIDED

Q.2. Answer the following short questions.

(10 x 2 = 20)

1. What do you understand by formed elements of blood?
2. Write down the abnormal composition of Urine and its Biochemical effects?
3. What is the difference between an immunogen and an antigen?
4. Write down the role of IgM?
5. Vitamin C and E are termed as antioxidants? Why?
6. Write down the role of Vitamin B-complex?
7. What does Electron microscopy can do in biochemical studies?
8. RIA is used for which purposes? Explain?
9. What is the requirement of Vitamin A and K?
10. Explain Gaseous Transport?

Q.3 Questions with brief answers.

(3 x 10 = 30)

1. Define Complement System. How many components are involved in the system and also write down the classical pathway in detail? (15)
2. How you can extract, fractionate and purify proteins? Explain various methods involved in the process? (10)
3. Write down Biosynthesis and Metabolism of Porphyrin? (5)