



UNIVERSITY OF THE PUNJAB

B.S. 4 Years Program /Eighth Semester – 2019

Paper: Bio Chemistry (Sp. Theory-II)

Course Code: CHEM-438 Part – I (Compulsory)

Time: 15 Min. Marks: 10

Roll No. in Fig.

Roll No. in Words.

Signature of Supdt.:

ATTEMPT THIS PAPER ON THIS QUESTION SHEET ONLY.

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 correct option.

(10x1=10)

1. The pH of pure water is neutral, the best explanation for this is:

- a. The pH of pure water is 7
- b. In Pure water the concentration of H⁺ and OH⁻ are same
- c. Water do not contain free H⁺ or OH⁻ ions
- d. Water will never ionize

2. As pKa of an acid increases, the acid will be:

- a. More weaker
- b. More Stronger
- c. Converted to Neutral Solution
- d. Converted to basic solution

3. Detoxification of amino acid occur in:

- a. Kidney
- b. Liver
- c. gall bladder
- d. Nephrons

4. Which of the following is the best description of Homeostasis:

- a. Maintenance of body function
- b. Maintenance of body function at the optimum level at all times
- c. Multiple systems working cooperatively to maintain body function at an optimum level
- d. Multiple systems working cooperatively to maintain body function within normal limits

5. The codon that is responsible for chain termination is:

- a. AUG
- b. UAG
- c. AAA
- d. UAA

6. Which of the following statement is false about DNA?

- a. Located in chromosomes
- b. Carries genetic information from parent to offspring
- c. Abundantly found in cytoplasm
- d. There is a precise relationship between amount of DNA and number of sets of chromosomes per cell

P.T.O.

- 7. Anticancer drugs weaken host defense by:**
- a. Damaging respiratory and gut epithelia
 - b. Inducing granulocytopenia
 - c. Altering resident microbial flora
 - d. Both " A and B" are correct
- 8. Lytic cycle of bacteriophage is also known as:**
- a. Temperate phage
 - b. virulent phage
 - c. DNA phage
 - d. cyclic phage
- 9. Definite results proving DNA to be genetic material was given by:**
- a. Fredrick Griffith
 - b. Hershey and Chase
 - c. Avery, Macleod and Mac Carty
 - d. Meselson and Stahl
- 10. ----- are cancer causing genes:**
- a. Mutagens
 - b. Meta stasis
 - c. Oncogenes
 - d. Carcinogens



ATTEMPT THIS (SUBJECTIVE) ON THE SEPARATE ANSWER SHEET PROVIDED

2. Questions with short answers

2x10

1. What are the benefits of mutation and protoplast fusion in cultures?
2. What is the difference between plasmids and bacteriophages?
3. Write down detoxification function of kidney?
4. Name some weak Acids and weak Bases?
5. Differentiate Constitutive, repressed and induced enzymes?
6. Name some antiviral drugs?
7. How drugs are biochemically transformed?
8. Write down gross classification of microorganisms?
9. Differentiate between replication and recombination?
10. How water is ionized?

3. Questions with brief answers

1. Write down the Chemistry and Mechanism of Action of Antimalarial Drugs? (10)
2. Define Culture Media? What should be their composition? How their growth is measured by using various methods? (10)
3. How Muscles are contracted and relaxed? (5)
4. Write down the methods for recombinant DNA? (5)