

SC

[A-23]

SEAT No. _____

No. of Printed Pages : 3

SARDAR PATEL UNIVERSITY

EXTERNAL EXAMINATION [N.C.2010]-October-2018

S.Y.B.Sc. Biochemistry. US03CBCH02 - III SEM

BIOPHYSICAL CHEMISTRY

DATE:- 26/11/18, Monday Total marks: 70

Time: 2:0 PM-5:0 PM

(10)

Q-1. Answer the following: (1 mark each)

1. barrier layer cell is used in-----

- a) colorimeter b) Flurometer
- c) Spectrometer d) potometer

2. Water loving colloids are known as-----

- a) Lyophobic colloid b) Protective colloid
- c) Hydrophilic colloid d) lyophilic colloid

3. ----- micro-organisms does not required oxygen for their growth

- a) Pathogenic b) Anaerobic
- c) Aerobic d) Acid-fast

4. The flow of Solvent increase with decrease in-----

- a) Osmosis b) Viscosity
- c) Diffusion d) Surface tension

5. For the collection of ----- direct observation is required.

- a) Secondary data b) Government data
- c) Online data d) Primary data

6. -----an important diagrammatic presentation.

- a) graph b) stub
- c) Frequency d) data

7. clinical centrifuge has-----RPM

- a) 300 b) >10000
- c) 3000-5000 d)<3000

9. Tungsten lamp is used as radiant energy source for-----

- a) centrifuge b) electrophoresis
- c) NMR d) colorimeter

10. Electrolytes concentration is important to maintain normal-----

- a) water balance b) acid balance
- c) base balance d) acid-base balance

1

(P.T.O.)

Q-2. Short Questions: Answer any six.

(12)

1. Define and explain monochromatic device .
2. Explain -‘ G’ in centrifuge techniques.
3. Write on features of good table.
4. Name the microflora of portable and waste water.
5. Explain - properties of protective colloids?
6. Explain terminology –“diffusion.
7. Write on uses of centrifuge.
8. Define –mean.
9. Give distribution of the body water.
10. Enlist importance of biological treatment

Long Questions: (8 marks each)

(48)

- Q-3.** a) Write note on - role of hormone to maintain water balance 4
b) Write note on dehydration. 4

OR

- Q-3.** a) Classify and write on -blood buffer system. 5
b) Write a brief account Na and K electrolyte balance. 3

- Q-4.** a) write an account on -biological significance viscosity. 3
b) Classify and write difference between hydrophilic and hydrophobic colloids. 5

OR

- Q-4.** a) Discuss phenomena of Donnan - membrane equilibrium. 4
b) Discuss role of osmosis in the body. 4

- Q-5.** a) Derive the equation for sedimentation rate. 5
b) Give brief account application and factors affecting on sedimentation rate . 3

OR

- Q-5.** a) write on types of centrifuge rotors. 4
b) Draw a diagram and write note on analytical ultracentrifuge. 4

(2)

- Q-6. a) Write note on -principle and elements for colorimeter. 5
 b) Write on importance of NMR technique in developing sciences 3
- OR
- Q-6. a) write an account on any one type of detectors spectrometric analysis. 5
 b) Explain light sources for visible spectrometer. 3
- Q-7. a) Classify and explain any one method for sewage treatment.. 5
 b) Write note on - waste water disposal and purification. 3
- OR
- Q-7. a) Write note on – treatment for waste water 5
 b) explain- biological process for treatment of unhygienic water. 3
- Q-8. Discuss –measure for central tendency with an example. 8

OR

- Q-8. Plot an appropriate graph and state the excellence source of riboflavin from the given brand number of fruit juice. 8

Brand of fruit juice	1	2	3	4	5	6	7	8	9	10
Vitamin riboflavin $\mu\text{g}\%$	1087	1090	965	845	1007	992	989	1068	1065	1049



