

SARDAR PATEL UNIVERSITY
B.Sc. (IV Semester) (Biochemistry) Examination
2016
11th April 2016 (MONDAY)
10.30 am - 1.30 pm
US04CBCH02 : Biophysical Biochemistry

Total Marks: 70

MULTIPLE CHOICE QUESTIONS. ANSWER THE FOLLOWING

10

1. Mercury vapour lamp in spectrometric analysis is an example of
a) detector b) monochromator c) photocell d) radiant energy source
2. ----- is used to verify lambert law
A] monochromator B] photocell C] cuvette D] working std.sol.
3. Another name of photovoltaic cell is.....
A] Phototubes B] Photomultipliers C] Photoemissive tubes D] Barrier layer cells
- is best applied for accurate determination of pH
A] pH indicators B] litmus paper C] pH meter D] pH strips
3. ----- is known as primary electrode
A] calomal B] mercury C] glass D] platinum
4. Range for Wavelength of UV-Visible Spectrometer is
A] < 300 nm B] > 540 nm C] > 300 nm D] Between 200-780 nm
5. ----- is known as photodetector
A] calomal B] barrier layer cell C] Hg lamp D] platinum wire
6. Primary monochromator for fluoro-spectrometry is-----
A] U.V light B] green light C] Hg light D] white light
7. In paper chromatography is a mobile phase.
A] Sample B] Ninhydrin C] Solvent system D] Cellulose paper
8. TLC require ----- as adsorbent
A] silica gel-G B] Ninhydrin C] silica gel D] Cellulose paper
9. The value observed maximum time in a given data is-----
A] Mode B] Range C] Median D] Mean
10. Foot note is present in-----
A] graph B] table C] Median D] Mean

Q.2 **Answer in short. (Two mark each-Attempt any ten)**

20

1. Define –laws in colorimetric analysis
2. Explain –radiant energy sources.
3. What do you mean by entrance and exist slit
4. Define – buffer and pH
5. Write Principle for pH meter
6. What are radioisotopes
7. Define: mobile phase and give one example to separate amino acid.
8. Give meaning for RF value.
9. What is location reagent.
10. What do you mean by frequency?
11. Define- SD
12. Write on data

ATTEMPT THE FOLLOWING

40

Q.3 A] Draw labelled diagram for electrodes used to measure pH of buffer.

5

B] explain unit for radio activity

5

OR

Q.3 A] Write note on application of radio isotopes.

5

B] write note on- scintillation counter

5

Q.4 A] Give block diagram of a spectro-fluro-meter and write on application

5

B] Give brief account on monochromatic devises in colorimeter.

5

OR

Q.4 Write a note on:

A. Barrier layer cell

5

B. Photovoltaic cell.

5

Q.5 A] Classify types of graph and explain each giving an example

10

OR

Q.5 A] Give formula to calculate Mode, Median and S.D. and Calculate Mode and Median for following data

10

Fasting Blood glucose of the patient is as under

Sr. No. of patient	1	2	3	4	5	6	7	8*	9	10	11
Mg% cholesterol	180	156	170	180	200	210	220	180	320	180	200

X-X-X

2