



## BRAINWARE UNIVERSITY

Term End Examination 2022

Programme – B.Pharm-2019

Course Name – Instrumental Methods of Analysis

Course Code - BP701T

( Semester VII )

Full Marks : 75

Time : 3:0 Hours

[The figure in the margin indicates full marks. Candidates are required to give their answers in their own words as far as practicable.]

### Group-A

(Multiple Choice Type Question)

1 x 20=20

1. Choose the correct alternative from the following :

- (i) select the wavelength used to detect low-Pressure Mercury lamp Liner Radiation.
  - a) 254nm
  - b) 700nm
  - c) 800nm
  - d) 600nm
- (ii) select the correct option in Modern UV Sample cell or Cuvette made up of ?
  - a) Glass
  - b) Plastic
  - c) Quartz
  - d) Cobalt
- (iii) Choose the correct wavelength range corresponding to UV-Visible region?
  - a) 400-800nm
  - b) 200-800nm
  - c) 25 $\mu$ m-2.5 $\mu$ m
  - d) 2.5  $\mu$ m-1mm
- (iv) Determine in UV-Visible Spectrophotometry if we take fifty percent of fifty ppm and add the remaining fifty percent with distilled water what is the exact ppm solution we obtained
  - a) 100ppm
  - b) 50ppm
  - c) 25ppm
  - d) 10ppm
- (v) Predict the testing of flame photometry on ignition of lithium we observe
  - a) red
  - b) yellow
  - c) lime green
  - d) violet
- (vi) Predict the testing of flame photometry on ignition of potassium we observe.
  - a) yellow
  - b) violet
  - c) lime green
  - d) red
- (vii) select the best out of it, in turbidometry we analyze
  - a) insoluble particles with respect to scattering
  - b) soluble particles with respect to transmittance
  - c) metals
  - d) absorbance
- (viii) choose the best out of it, on the effect of solvents on absorption maxima in paracetamol we dissolves with
  - a) HCl
  - b) H<sub>2</sub>SO<sub>4</sub>
  - c) Boric acid
  - d) NaOH



7. Describe the principle and various gels used in Gel Electrophoresis. (5)

**OR**

Describe about Quenching? Enumerate the various factors which influence quenching effect. (5)

8. Write the advantages and disadvantages of TLC over paper chromatography? (5)

**OR**

Write the events that occur when the compound of a metal to be investigated is aspirated into a flame? (5)

**Group-C**

(Long Answer Type Questions)

10 x 2=20

9. Compare and differentiate thin-layer chromatography vs radial paper chromatography in detail. (10)

10. Distinguish briefly about different factors, which influences the fluorescence intensity. (10)

**OR**

Illustrate schematically the principle, working and instrumentation of Atomic Absorption Spectroscopy. (10)

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