

SW-120

Total No. of Pages : 2

Seat  
No.

B.Sc. (Part - III) (Semester - VI) Examination, October - 2019

CHEMISTRY

Analytical Chemistry (Paper - XVI)

Sub. Code : 65833

Day and Date : Saturday, 19- 10 - 2019

Total Marks : 40

Time : 12.00 noon to 2.00 p.m.

- Instructions :
- 1) All questions are compulsory.
  - 2) Figures to the right indicates full marks.
  - 3) Draw neat labelled diagrams wherever necessary.

Q1) Select the most correct alternatives among those given below and rewrite the sentence :

- a) The most suitable indicator for weak acid strong base titration is \_\_\_\_\_ [8]
- i) phenolphthalein
  - ii) litmus
  - iii) methyl orange
  - iv) methyl red
- b) For  $P^H$  determination, the quinhydrone electrode works satisfactorily at \_\_\_\_\_  $P^H$  values.
- i) high
  - ii) low
  - iii) medium
  - iv) none of these
- c) The ratio of intensity of transmitted light to the intensity of incident light is known as \_\_\_\_\_.
- i) opacity
  - ii) absorbance
  - iii) transmittance
  - iv) all of these
- d) Flame photometry is concerned with the measurement of intensity of light \_\_\_\_\_ when a metal is introduced in the flame.
- i) absorbed
  - ii) emitted
  - iii) adsorbed
  - iv) none of these
- e) In paper chromatography paper acts as \_\_\_\_\_ phase.
- i) solid
  - ii) liquid
  - iii) stationary
  - iv) stationary liquid

P.T.O.

- f) \_\_\_\_\_ is essential for EDTA titrations.
- i) Buffering
  - ii) Unbuffering
  - iii) Neutralisation
  - iv) Acidifying
- g) A device for measuring a response of photocell is called \_\_\_\_\_.
- i) voltmeter
  - ii) galvanometer
  - iii) conductometer
  - iv) all of these
- h) When the temperature of flame is increased the intensity of emitted radiations \_\_\_\_\_.
- i) decreases
  - ii) first decreases then increases
  - iii) remains constant
  - iv) increases

Q2) Attempt any two of the following :

[20]

- a) With the help of a titration curve explain the choice of an indicator where sodium acetate is formed during the neutralization process.
- b) Give the construction and working of glass electrode.
- c) With the help of a schematic diagram explain the working of Gas chromatography.

Q3) Attempt any three of the following :

[12]

- a) Advantages of potentiometric titrations.
- b) Define and explain the terms, the extinction coefficient and the molecular extinction coefficient.
- c) Interference in flame photometry.
- d) Classification of chromatography on the basis of mobile phase and stationary phase.
- e) Types of EDTA titrations.

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