SLR-TV – 34

Seat No.	

Set P

B.Pharm. (Semester – V) (New CBCS) Examination, 2018
PHARMACEUTICAL ANALYSIS – III

Day and Date : Friday, 14-12-2018 Total Marks : 70
Time : 10.30 a.m. to 1.30 p.m.

I. Multiple choice questions.

1) Which is the complimentary colour of red ?
   a) Yellow b) Blue c) Orange d) Green

2) Which of the following element is generally analysed by flame photometer ?
   a) Lithium b) Potassium c) Calcium d) All of these

3) Vierdot's method is popularly known as _____ method.
   a) Simultaneous Eqn. b) Q – ratio
   c) Absorption ratio d) Geometric correction

4) In Atomic Absorption Spectroscopy, with what material is the cathode in Hollow cathode lamp constructed ?
   a) Tungsten b) Quartz
   c) Element to be investigated d) Aluminium

5) Shifting of absorption maxima towards longer wavelength is termed as
   a) Bathochromic shift b) Hypsochromic shift
   c) Hyperchromic effect d) Hypochromic effect

6) In Atomic absorption spectroscopy, which of the following is the generally used radiation source ?
   a) Tungsten lamp
   b) Xenon mercury arc lamp
   c) Hydrogen or deuterium discharge lamp
   d) Hollow cathode lamp

7) According to the Beer-Lambert Law, absorbance is
   a) Inversely proportional to the concentration
   b) Directly proportional to the concentration
   c) Directly proportional to the transmittance
   d) Inversely proportional to the log of the concentration

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8) Which of the following fuel oxidant mixture produces highest temperature ?
   a) Hydrogen-air
   b) Propane-air
   c) Natural gas-air
   d) Acetylene-Oxygen

9) Which of the following is not a detector used in Flame emission photometers ?
   a) Photovoltaic cell
   b) Chromatogram
   c) Photoemissive tube
   d) Photronic cell

10) In which instrumentation there is no need of an external energy source ?
   a) Flame photometry
   b) Spectrophotometry
   c) Fluorimetry
   d) Chemiluminescence

11) Laminar flow burner used in Flame photometers is also known as
   a) Turbulent burner
   b) Premix burner
   c) Total consumption burner
   d) Nozzle mix burner

12) The visible region of the electromagnetic spectrum lies in the wavelengths region of
   a) 200-300 nm
   b) 340-650 nm
   c) 380-750 nm
   d) 100-900 nm

13) The photomultiplier can be used in spectrophotometry as a
   a) Filter
   b) Source that generate energy beams
   c) Detector
   d) Monochromator

14) Which of the following is the principle of Atomic absorption photometers ?
   a) Radiation is absorbed by non-excited atoms in vapour state and are excited to higher states
   b) Medium absorbs radiation and transmitted radiation is measured
   c) Colour of the flame is observed
   d) Only wavelength of the background flame is measured

15) In Flame emission photometers, the measurement of _____ is used for qualitative analysis.
   a) Colour
   b) Intensity
   c) Velocity
   d) Frequency

II. Answer **any five** of the following questions. **(5×5=25)**

1) Enlist various methods of assay of substances in multi component samples. Derive simultaneous equation method.
2) Explain factor affecting an intensity of fluorescence.
3) Enlist various burners used in flame photometry. Discuss any two.
4) Explain in detail electronic transitions in UV visible spectroscopy.
5) Explain quenching of fluorescence. Add a note on applications of fluorimetry.
6) Write the principle of Flame Photometry.

III. Answer **any three** of the following questions. **(10×3=30)**

1) Describe the Instrumentation of flourimetry with a neat labeled diagram.
2) Explain the Instrumentation of Atomic Absorption Spectroscopy with a neat labeled diagram.
3) Explain in brief the interferences and applications in Atomic Absorption Spectroscopy.
4) State and derive Beer-Lambert's law. Explain deviations from Beers Law.

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