



NAV-003-047201 Seat No. \_\_\_\_\_

**B. Voc. (Pharm. Analysis & QA) (Sem. II)  
(CBCS) Examination**

March / April - 2017

**BVPAQA - 201 : Pharmaceutical Analysis**

**Faculty Code : 003**

**Subject Code : 047201**

Time : 3 Hours]

[Total Marks : 70

- Instructions :** (1) All questions are compulsory and carry equal marks.  
(2) Draw diagram and/or scheme wherever necessary.

**1 (A) Answer the following multiple choice questions : 10**

- (1) In polarimetry experiments, \_\_\_\_\_ light is used.
- (2) \_\_\_\_\_ is used as reference electrode in potentiometric titrations?
- (3) \_\_\_\_\_ is known as closeness of test results to true value.
- (4) Why oxygen purging is carried out in polarography before the commencement of process?
- (5) Qualitative and quantitative analysis can be performed by Amperometric titration. True or false?
- (6) A solution that has equal amounts of left- and right-handed enantiomers of a chiral molecule is called \_\_\_\_\_.
- (7) The unit of conductivity of solution is \_\_\_\_\_
- (8) If there is a mixture of strong acid and strong base than at the stating part of process the conductance is \_\_\_\_\_ (high or low).
- (9) What is the primary structural requirements for the optical active substance?
- (10) Wien effect is the related with \_\_\_\_\_ and \_\_\_\_\_

(B) Answer the following multiple choice questions : **20**

- (1) Which two methods of electrochemical analysis are similar in the respect of data of the equipment point?
- (2) Draw a typical Polarogram.
- (3) What are the reasons behind adding supporting electrolyte and keeping shunt in the Polarograph?
- (4) Define 1) signal and 2) noise. What is SNR?
- (5) Substance which rotates the plane of polarized light towards right side is called \_\_\_\_\_ rotatory and substance which rotates the plane of polarized light towards left side is called \_\_\_\_\_ rotatory.
- (6) Enlist any 4 advantages of potentiometric titration.
- (7) Why racemic mixtures are optically inactive?
- (8) According to Ohm's Law, electric current is \_\_\_\_\_ to voltage and \_\_\_\_\_ to resistance.
- (9) Comment: specific conductance decreases with dilution.
- (10) Draw the schematic diagram of conductometer. And give brief introduction of it.

**2** Answer any 4 out of the following 6 questions : **20**

- (1) Write a brief note on Conductometric titration. Discuss its advantages.
- (2) Explain the importance of analytical instrument validation method. Discuss all major the protocols in detail.
- (3) Describe Potentiometric titration in detail.
- (4) Explain the Neutralization titration of acid and base. Draw curves for explanation.
- (5) Discuss the advantages and limitations of instrumental analytical methods.

(6) Explain following terms in brief:

- (a) Precision
- (b) Accuracy
- (c) Robustness
- (d) Linearity
- (e) S/N ratio

**3** Answer any 4 out of the following 6 questions : **20**

- (1) Enlist and explain applications of Optical Activity.
- (2) Describe principle and construction of polarimeter.
- (3) Draw and explain the apparatus of Polarography.
- (4) Describe the factors affecting limiting current.
- (5) What is dead stop end point method? Explain in detail.
- (6) Discuss merits and demerits of amperometric titrations.

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