

Seat No.	
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B.Sc. (Part - II) (Semester - III) (Revised)**Examination, November-2018****CHEMISTRY****Analytical Chemistry (Paper - VI)****Sub. Code : 63603****Day and Date : Wednesday, 28 - 11 - 2018****Total Marks : 50****Time : 12.00 noon to 2.00 p.m.**

- Instructions :**
- 1) All questions are compulsory.
 - 2) Figures to the right indicate full marks.
 - 3) Draw neat labelled diagrams and give equations wherever necessary.
 - 4) Use of scientific calculator and logarithmic table is allowed.

Q1) Choose the most correct alternative for each of the following and rewrite the sentences. **[10]**

a) Fertilizers are essentially required to maintain the pH of soil between _____

i) 1 to 3

ii) 4 to 5

iii) 7 to 8

iv) 1 to 6

b) The process of extracting a small portion of material from its large quantity Which truly represent the composition of the whole material is know as _____

i) analysis

ii) sampling

iii) process

iv) accuracy

c) Sodium tetraphenylborate method is used for analysis of _____

i) nitrogen

ii) potassium

iii) carbon

iv) hydrogen

P.T.O.

- d) The process of forming a precipitate is known as _____
- i) peptization
 - ii) coagulation
 - iii) precipitation
 - iv) flocculation
- e) DMG is used to precipitate _____
- i) Fe
 - ii) Ni
 - iii) Mg
 - iv) Al
- f) Electrolytic conduction is due to the movement of _____
- i) atoms
 - ii) electrons
 - iii) molecules
 - iv) ions
- g) Yellow ammonium sulphide is used in the separation of _____ group.
- i) II
 - ii) III A
 - iii) IV
 - iv) III B
- h) SI unit of conductivity is _____
- i) Ohm^{-1}
 - ii) cm^{-1}
 - iii) m^{-1}
 - iv) siemen
- i) Weight of solid sample used in semi- micro qualitative analysis is ranges between _____ gram.
- i) 0.1 to 1
 - ii) 0.01 to 0.1
 - iii) 0.001 to 0.01
 - iv) 0.0001 to 0.001
- j) Significant figure is a _____ which denotes the amount of the quantity in the place in which it stands.
- i) picture
 - ii) analysis
 - iii) digit
 - iv) error

Q2) Attempt the following. (Any two)

- a) State and explain essential requirements for good precipitation.
- b) Describe Kjeldahl's method for the estimation of nitrogen.
- c) Give the classification of analytical methods of analysis. Describe any two methods in detail.

Q3) Attempt any four of the following

[20]

- a) Give advantages of conductometric titrations?
- b) Write a short note on digestion.
- c) Explain separation of II group into IIA and IIB.
- d) Define cell constant. How is it determined?
- e) Explain common ion effect with suitable example.
- f) How will you estimate potassium by sodium tetraphenyl borate method.

