

RayatshikshanSanstha's
RajarshiChhatrapati Shahu College Kolhapur
Department of Chemistry
B.Sc. Part I Semester II (2021-22)
Analytical Chemistry Paper No. IV (72844)

Date &Time : 17/6/2022 10.00 TO 12.30

Mark-50

Instruction:-

1. All question compulsory
 2. Figuers to the right hand side indicate full marks.
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Q1 Multiple Choice Questions.

(10 Mark)

- i) In instrumental analysis, physical property of a substance is measured by any known -----
- a) chemical test b) instrument c) sample d) none of these
- ii)----- is nothing but the actual difference between the true result and the experimental value in the same units.
- a) sampling b)analysis c)chemical test d) error
- iii) The number of phases operating in chromatography.
- a) 4 b) 2 c) 6 d) varies with the type
- iv) pH range of methyl red indicator is-----
- a) 3.1 to 4.2 b) 4.2 to 6.3 c) 6.3 to 7.1 d) 5.2 to 6.3
- v)pH range of phenolphthalein indicator to exhibit color change is-----
- a) 8.3-12 b) 3.1 – 4.4 c) 8.3 – 10 d) 4.2- 6.3
- vi) ph range of portable water is -----
- a) 7.0 to 8.5 b) 4.5 to 8.0 c) 2.0 to 4.5 d) 8.0 to 11.5
- vii) Unit of hardness is -----
- a) g / L b) mg/ L c) g /Kg d) mL

viii) Fertilizer is a -----

- a) biodegraded animal waste
- b) biodegraded agricultural waste
- c) biodegraded animal agricultural molecules
- d) manufactured mineral products of standard composition

ix) The method used to determine total potassium is-----

- a) STPB
- b) phosphomolybdate
- c) Kjeldahl's
- d) Urease

x) In TLC Stationary phase is

- a) adsorbent itself
- b) liquid film around adsorbent
- c) organic
- d) either a or b

2. Attempt any TWO of the following (10x2)

(20 Marks)

- a) What are errors ? state and explain types of errors ?
- b) Explain neutralisation of weak base with strong acid or weak acid with strong base or strong acid with strong base?
- c) How is nitrogen estimated by Kjeldahl's methods?

3. Attempt any FOUR of the following (5x4)

(20 Marks)

- A) Define the i) Mean ii) Median iii) Mean deviation d) Standard deviation
- B) Difference between paper chromatography and Thin layer chromatography ?
- C) Describe Types of EDTA titrations ?
- D) Write short notes on BOD ?
- E) write short note on sampling ?.
- F) There are following seven observation (values) of the analysis Find the mean and median :
44,49,45,58,37,42,47.

