Shivaji University, Kolhapur
Summer Examination 2020

Course Name : 65833-Chemistry Paper XVI
Subject Name : (65833)Chemistry Paper XVI
Paper Name : 65833-Chemistry Paper XVI
Date : 03/11/2020
Time : 11:00AM - 12:00PM

Paper Code : 65833
Max. Marks : 50

महत्वाची सूचना : विद्यार्थ्यांनी 30 पैकी 25 प्रश्न सोडवावेत (प्रत्येकी 2 मार्कस) अथवा 60 पैकी 50 प्रश्न सोडवावेत (प्रत्येकी 1 मार्क)

Q.1
Alumina used in column chromatography has ——— property
(1)adsorption
(2)absorption

Q.2
pH range of phenolphthalein indicator is ———
(1)4.2 - 6.3
(2)8.6 - 10.6

Q.3
In potentiometric measurements, saturated calomel electrode (SCE) is used as ———.
(1)indicator electrode
(2)reference electrode

Q.4
Molar extinction coefficient € is optical density when layer of solution is ——— thick and concentration of absorbing medium is ———
(1)2 cm, 2mol/L
(2)2cm, 1 mol/L

Q.5
The fraction of thermally excited atoms in Flame photometry is determined by ——— equation.
(1)Boltzmann distribution
(2)Snell's law

Q.6
In paper chromatography the aqueous medium acts as ——— phase.
(1)organic
(2)solvent

Q.7
EDTA is a ——————— complexing agent which reacts with almost all metals in periodic table with exception of alkali metals.
(1)bidentate
(2)tridentate

Q.8

pH determination by quinhydrone electrode system, pH

a . $pH = (0.454 - E_{cell})/0.0591$

b. $pH = (0.699$

c. $pH = (0.2458 - E_{cell})/0.0591$

d. $pH = (0.699$

.

(1)a

(2)b

Q.9

Beer's law is not obeyed when ————-

(1)association or dissociation of coloured solute takes place

(2)complex formation by coloured solute

Q.10

The temperature of the flame in flame photometer is controlled by———— and ———— used in the flame.

(1)oxidant and reductant

(2)fuel and oxidant

Q.11

The ratio of concentration of solute in stationary phase to concentration in mobile phase is called as ———- coefficient.

(1)permeability

(2)partition

Q.12

The requisite for metallochromic indicator is ————-

(1)it must be sensitive

(2)the colour reaction should be specific and selective

Q.13

When the endpoint of potentiometric titration is obtained by plotting dE/dv against volume of solution then the method is called as ————-

(1)classical method

(2)first derivative method

Q.14

According to Lambert's law when a beam of monochromatic radiation passes through transparent medium, rate of decrease of intensity of light with ———— of absorbing medium is proportional to intensity

(1)thickness

(2)concentration

Q.15

In flame photometry ————- light from excited atom is measured.

(1)excitation

(2)phosphorescence

Q.16
The rate of flow is the ratio of distance travelled by the———— to distance travelled by ————
(1)solvent, solute
(2)mobile phase, stationary phase

Q.17
Eriochrome black T is also called as ————
(1)solochrome black
(2)chiffon black

Q.18
The chlorides, bromides and iodides in mixture can be analysed quickly by single titration with silver nitrate in presence of silver electrode by————— titration.
(1)conductometric
(2)colorimetric

Q.19
The ratio -dI/dc gives the rate of decrease of————— of radiation with concentration of absorbing medium.
(1)Length
(2)velocity

Q.20
————— of the following element can not be detected and estimated by flame photometric technique.
(1)sodium
(2)Magnesium

Q.21
Low Rate of flow (Rf) indicates higher affinity for ————
(1)Stationary phase
(2)mobile phase

Q.22
The indicator ————— is suitable for titration of weak acid and strong base.
(1)methyl orange
(2)phenolphthalein

Q.23
The potential of cell in precipitation titration by combin calomel electrode is given by----------

a. $E_c = E_{Ag} - 0.2458$

b. $E_c =$

c. $E_c = E_{SCE} - E_{Ag}$

d. E_c

.

(1)a

(2)b

Q.24

The photocurrent in photoelectric colorimeter is measured by ————

(1)voltmeter

(2)ammetor

Q.25

The sample used in flame photometry is in ———— state.

(1)solid

(2)liquid

Q.26

According to quinonoid theory generally ——— form is darker in colour than ———form.

(1)acid, base

(2)quinonoid, benzenoid

Q.27

————of following is the electrode whose potential does not depend on H+ ion concentration.

(1)quinhydrone electrode

(2)hydrogen electrode

Q.28

Optical density is given by expression ----------

a. $D = \log I_t/I_0$ b. $D = \log I_0/I_t$ c. $D = \log($

.

(1)a

(2)b

Q.29

———— mixture provides highest flame temperature.

(1)Hydrogen-oxygen

(2)propane-oxygen

Q.30

Flame photometry cannot be used for the direct determination of ———

(1)Noble metals

(2)Halides