



ANJUMANI ISLAM'S

AKTC KALSEKAR TECHNICAL CAMPUS

INNOVATIVE TEACHING · EXUBERANT LEARNING

School of Architecture

School of Engineering & Technology

School of Pharmacy

Knowledge Resource & Relay Centre (KRRC)

AIKTC/KRRC/SoP/ACKN/QUES/2022-23/

Date: 25/01/23

School: SoP-PCI Branch: SoP

SEM: I

To,
Exam Controller,
AIKTC, New Panvel.

Dear Sir/Madam,

Received with thanks the following [✓]Semester/Periodic question papers from your exam cell:

ATKT

Sr. No.	Subject Name	Subject Code	Format		No. of Copies
			SC	HC	
1	Human Anatomy and Physiology I	BP101T		—	
2	Pharmaceutical Analysis I	BP102T		✓	
3	Pharmaceutics I	BP103T		✓	
4	Pharmaceutical Inorganic Chemistry	BP104T		—	
5	Communication skills	BP105T		—	
6	Remedial Biology/ Remedial Mathematics	BP106RBT BP106RT		—	

Note: SC – Softcopy, HC - Hardcopy

(Shaheen Ansari)
Librarian, AIKTC

- N.B.:** 1. All questions are compulsory.
2. Figures to right indicate full marks.

Q. I Choose appropriate option for the following multiple choice-based questions. 20

- 1 Instrument error can be corrected by _____.
 - a. Cleaning of instrument and apparatus
 - b. Changing instrument and apparatus
 - c. Calibration of the instrument and apparatus
 - d. Running a blank determination
- 2 Repeatable results of analytical experiment indicates _____ of analytical method
 - a. Accuracy,
 - b. Precision
 - c. Error
 - d. Reliability
- 3 What is a measure of precision of analytical measurements?
 - a. Standard deviation
 - b. Absolute error
 - c. Mean absolute error
 - d. Mean
- 4 The strength of 1 M iodine solution is equal to _____ solution
 - a. $\frac{1}{2}$ N
 - b. 1N
 - c. 2N
 - d. $\frac{1}{10}$ N
- 5 Ephedrine hydrochloride is assayed by
 - a. Non-aqueous acid-base titrations
 - b. Complexometric titration
 - c. Precipitation titration
 - d. Aqueous acid base titrations
- 6 Determination of concentration of analyte by polarography is based on _____.
 - a. Ilkovic equation
 - b. Nernst equation
 - c. Ohm's law
 - d. Faraday's Law
- 7 The curve obtained by plotting pH as ordinate against volume of titrant as abscissa is known as
 - a. Neutralisation curve
 - b. Precipitation curve
 - c. Standard curve
 - d. Calibration curve
- 8 _____ is used as indicator in cerimetry
 - a. Starch
 - b. Ceric ammonium sulphate
 - c. Ferroin
 - d. Methyl violet

- 9 The concentration 10 microgram of solute per cm^3 is _____.
a. 1 ppm
b. 10 ppb
c. 10 ppm
d. 10 %w/v
- 10 _____ indicator is used for strong acid strong base titrations
a. Crystal violet
b. Methyl yellow
c. Methyl orange
d. Xylenol orange
- 11 The titration carried out between the KCl and AgNO_3 is termed as _____.
a. Precipitation titration
b. Redox titration
c. Complexometric titration
d. Non aqueous titration
- 12 _____ is an example of sequestering agent
a. Dimethyl glyoxime
b. Potassium chromate
c. Salicyaldoxime
d. EDTA
- 13 _____ is indicator electrode
a. SHE
b. Silver chloride electrode
c. Glass electrode
d. Calomel electrode
- 14 The indicator used in complexometric titration are termed as
a. pM indicator
b. pH indicator
c. external indicator
d. adsorption indicator
- 15 Benzene is _____ solvent
a. aprotic solvent
b. protogenic
c. photophilic
d. neutral
- 16 Identify the correct combination of titrant and indicator:
a. disodium edetate and mordant balck II
b. perchloric acid and phenolphthalein
c. sodium methoxide and starch
d. sodium thiosulphate and phenol red
- 17 Solubility of inorganic precipitate is reduced by
a. addition of acid
b. addition of organic solvent
c. increase in temperature
d. addition of precipitating agent
- 18 Starch solution is used as an indicator in _____.
a. Permangnometry
b. Cerrimetry
c. Iodine titration
d. Dichromometry

- 19 Acidimetry is
- Titration of base (analyte) with acid (titrant)
 - Titration of acid (analyte) with base (titrant)
 - Determination of purity of acid substance
 - Blank determination of acidic solvent with base
- 20 Primary standards are
- Solutions of known concentration of analyte
 - Substances of highest purity
 - Substances of less purity than secondary standards
 - Substances of same standards as that of secondary standard

Q. II Answer any two questions. (Any 2) 20

- 1 Explain neutralisation curves. Write a detailed note on theories of acid base indicators. 10
- 2 a. Explain the concept of accuracy and precision of analytical method 10
b. Give two examples of each of the following
- Reagent error
 - Primary standard
 - Personal error
- 3 Give an overview on following redox titrations with its principle and applications 10
- Cerrimetry
 - Iodimetry
 - Iodometry

Q. III Answer any seven questions (Any Seven) 35

- 1 Explain the principle and reaction involved in Mohr's method 5
- 2 Give principle and reaction involved in assay of calcium gluconate injection 5
- 3 Explain unit operations in gravimetric analysis 5
- 4 Give principle reaction involved in determination of diazotization titration with suitable example 5
- 5 Explain theory and principle of Conductometry. Give any two applications of conductometry 5
- 6 What is indicator electrode? Give construction and working of glass electrode 5
- 7 Write in detail about DME with respect to construction, working advantages and disadvantages 5
- 8 Replicate water samples are analysed for water hardness with following results 102.2, 102.8, 103.1 and 102.3 ppm CaCO_3 calculate Mean, Median and standard Deviation. 5
- 9 When 50 ml of 0.1 M HCl is titrated with 0.1M NaOH, calculate the pH values at the start of the titration and after addition of 10,50,60 ml of titrant. 5

16.11.22 SEM-III CBCS R-2019

Paper / Subject Code: 66307 / Pharmaceutics-I

[Time:3 hours]

[Total Marks :75]

Note: Please check whether you have got the right question paper.

NB: 1. All questions are **compulsory**.

2. **Figures** to the **right** indicate **full** marks.

Q. 1 Choose the correct answer

20

- (a) Using Clark's formula, calculate the dose for a child weighing 20 lb. The adult dose is 300 mg.
(a) 40 mg (b) 110 mg (c) 200 mg (d) 35 mg
- (b) In liquid dosage form which of the following dosages forms is used for oral administration
(a) Liniments (b) Linctus (c) Enema (d) Lotion
- (c) Use of formulations made up of numerous plants referred as.....
(a) Parenteral (b) Plant Vehicle (c) Galenical (d) Generic
- (d) The part of the prescription called inscription contains
(a) Name and quantity of ingredients (b) Direction to the patient (c) Direction to the patient's relatives (d) Patient information
- (e) Who organizes the Indian Pharmaceutical Congress every year?
(a) Indian Pharmaceutical Association (b) Indian Pharmaceutical Congress (c) Indian Pharmaceutical Congress Association (d) Indian Pharmacy Graduates Association
- (f) Example of Low-calorie sweetening agents used as additive in liquid dosage form is
(a) Sucrose (b) Fructose (c) Dextrose (d) Aspartem
- (g) The ideal particle size for topical powders is
(a) 50 – 100 micron (b) 150 – 200 micron (c) 250 – 500 micron (d) Above 1000 micron
- (h) How many grams of dextrose required to prepare 3000 ml of 5%w/v solution
(a) 150 gms (b) 200 gms (c) 250 gms (d) 300 gms

Paper / Subject Code: 66307 / Pharmaceutics-I

- (i) In heat method of preparing effervescent granules to make damp mass _____ releases 1 molecules of water of crystallization
(a) Citric acid (b) Tartaric acid (c) Sodium bicarbonate (d) Sucrose
- (j) Throat paints are liquid preparations
(a) Viscous (b) Gas (c) Liquid (d) Solid
- (k) Douches are meant for application in.....
(a) Vaginal (b) Rectal (c) Nasal (d) Buccal
- (l) The role of emulsifying agent is _____.
(a) Reduce the interfacial tension between miscible phases
(b) Decrease surface area in emulsion
(c) Improves the medication taste
(d) Increase the size of globules
- (m) Double decomposition is an example of _____ incompatibility.
(a) Chemical (b) Physical (c) Biological (d) Therapeutic
- (n) One of the following is disadvantage of cocoa butter suppository base is
(a) Polymorphism (b) Miscibility with many ingredients (c) Solid at room temperature but melts in body (d) Blandness
- (o) Suppositories can be prepared by _____.
(a) Redispersion (b) Compression (c) Precipitation (d) Maceration
- (p) _____ is a remedy to overcome the incompatibility between oil and water
(a) Addition of Surfactant (b) Addition of Sweetner (c) Addition of Antioxidant (d) Stirring of immiscible phases
- (q) Polyethylene glycol are also known as _____.
(a) Macrogols (b) Oleaginous (c) Lanolin (d) Paraffin
- (r) Which base should be selected when water washability is the key requirement?
(a) Hydrocarbon base (b) Water soluble base (c) Absorption base (d) Emulsion base

- (s) _____ is an example of gelling agent.
(a) Pectin (b) Liquid Paraffin (c) Sorbitol (d) Propylene glycol
- (t) Which among the following ointment is prepared by chemical reaction?
(a) Non-staining Iodine ointment B.P. 1968 (b) Simple ointment B.P. (c) Salicylic acid ointment B.P. (d) Whitfield's ointment

Q.2 Answer any TWO

20

- (a) Give classification of powders. Explain bulk powder for external use
- (b) Discuss identification tests and stability problems of emulsions
- (c) Explain types of ointment bases. Discuss preparation methods of ointments

Q.3 Answer any SEVEN

35

- (a) Discuss different career options available in the Pharmacy Profession.
- (b) Define Prescription. Discuss in detail different parts of prescription
- (c) Classify dosage forms. Define Elixirs, liniments, lozenges and suppositories
- (d) How will you prepare 70gms of 15% Iodine Ointment from 5%, 20% & 25% Iodine ointment. Find out how many ml of 70%, 40% and 30% of alcohol should be mixed to get 55% v/v 1200ml of alcohol.
- (e) What are the advantages and Disadvantages of liquid dosage form? Add a note on vehicles used.
- (f) Differentiate between flocculated and Deflocculated suspension
- (g) Write a note on solutions instilled in body cavities
- (h) Define displacement value. Calculate the formula for 10 bismuth subgallate Suppositories each containing 300mg of bismuth subgallate. Given: Displacement value of Bismuth subgallate is 3.
- (i) What are pharmaceutical incompatibilities? Mention its types and explain Chemical incompatibility with suitable example.
