

MODULE-3



QUESTION BANK PHARMACEUTICS

(BIOPHARMACEUTICS, COSMETICS TECHNOLOGY,
DISPENSING & HOSPITAL PHARMACY, PHYSICAL PHARMACY,
PHARMACEUTICAL JURISPRUDENCE, PHARMACEUTICAL TECHNOLOGY)

Based on Latest Syllabus of

GPAT | NIPER | PHARMACIST | DRUG INSPECTOR | IIT-BHU

Features

- * Based on latest syllabus
- * Chapter wise & Section wise question
- * All topic covered
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- * Important for all Pharma Exam





PHARMACEUTICS

(BIOPHARMACEUTICS, COSMETIC TECHNOLOGY, DISPENSING & HOSPITAL PHARMACY, PHYSICAL PHARMACY, PHARMACEUTICAL JURISPRUDENCE, PHARMACEUTICAL TECHNOLOGY)

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| ❖ Semisolids | ❖ Ophthalmic Products |
| | ❖ Novel Drug Delivery System |

ABSORPTION OF DRUGS

- Identify the incorrect statement
 - Dissolution is the rate limiting step for Lipophilic drugs.
 - Permeation across the biomembrane is the rate limiting step for Hydrophobic drugs.
 - To maintain in vitro sink conditions, C_s is always greater than C_b at least 10%
 - Increase in diffusion coefficient lesser will be dissolution of drug
- For the determination of dissolution profile of Microspheres, which is the best dissolution model we can apply
 - Peppas model
 - Hixon-Croweli model
 - Higuchi model
 - Noye's Whitney equation
- When $n = 0.5$, what does it signifies in Korsmeyer- Peppas equation
 - First order kinetics
 - Zero order kinetics
 - Active transport process
 - Fickian diffusion
- Drug-ability characteristics is associated with
 - Lipinsky rule
 - BCS Classification
 - Both (a) and (b)
 - None of the above
- Identify the factors affecting drug absorption
 - Environmental factors temperature and humidity of the surroundings
 - Biological membrane properties, route of drug administration, mechanism of drug transport
 - The height and weight of the patient
 - Posture of the patient
- The biopharmaceutical classification of the drugs classifies the drugs into four classes according to their solubility and permeability. BCS Class III drugs can be described as those having
 - High solubility and high permeability
 - Low solubility and high permeability
 - High solubility and low permeability
 - Low solubility and low permeability
- The study of the factors associated with drug products and physiological processes, and the resulting systemic concentration of drugs is know as
 - Disposition
 - Complexation
 - Biopharmaceutics
 - Bioavailability
- Capable of associating with or absorbing water
 - Hydrophilic
 - Hydrophobic
 - Hydrologic
 - Hydraulic
- The time a drug will stay in the stomach before it is emptied into the small intestine is
 - Glomerular filtration
 - Gastric emptying time
 - Disposition
 - Agonist
- Which of following are not characteristics of facilitated diffusion
 - Carrier-mediated transport
 - Concentration gradient is required

EXCRETION OF DRUGS

190. A 55-year old woman with the chronic obstructive pulmonary disease has been receiving theophylline, a drug biotransformed by CYP1A2 isozyme. A few days ago the patient started taking erythromycin (a macrolide antibiotic) for an upper respiratory tract infection. Knowing that a pharmacokinetic interaction can occur between erythromycin and theophylline, which of the following statements best explains the risk of overdose toxicity of these drugs
- (a) Theophylline risk increased (b) Theophylline risk unaffected
(c) Theophylline risk decreased (d) Erythromycin risk increased
191. A 61-year-old man suffering from epilepsy had been receiving Carbamazepine, an anticonvulsant drug biotransformed by CYP3A4 isozyme. A few days ago the patient felt annoying heartburn and started taking an over the counter preparation containing cimetidine, an inhibitor of most cytochrome P450 isozymes. Which of the following events most likely occurred after a few days of cimetidine therapy
- (a) Plasma levels of Carbamazepine were decreased
(b) Pharmacological effects of Carbamazepine were reduced
(c) Plasma levels of cimetidine were decreased
(d) The risk of overdose toxicity of Carbamazepine was increased
192. A 35-year-old Caucasian man complained of tingling sensation in his limbs and that his arms sometimes felt heavy. The man, recently diagnosed with pulmonary tuberculosis, had been receiving isoniazid and Rifampin for 2 months. He was diagnosed with peripheral neuropathy, a known adverse effect of isoniazid. Which of the following events most likely caused the patient's symptoms and signs
- (a) Rifampin-induced inhibition of isoniazid metabolism
(b) Worsening of the disease, in spite of the therapy
(c) Allergic reaction to Rifampin
(d) Inherited deficiency of N-acetyltransferase
193. A 52-year-old man, suffering from adult autism and violent behavior, started a treatment which included buspirone, two tablets daily. The drug underwent a large first pass effect. Which of the following pharmacokinetic properties of the drug was most likely affected by this large first pass loss
- (a) Volume of distribution (b) Oral bioavailability
(c) Renal clearance (d) Sublingual bioavailability
194. Which of the following factors can affect the renal clearance of a drug
- (a) Oral bioavailability (b) pKa
(c) Route of administration (d) Administered dose
195. The renal clearance of a drug is 55 mL/min when the pH of the urine is 8, and 110 mL/min when the pH of the urine is 5. Which of the following is most likely the chemical nature of that drug
- (a) Weak base (b) Non ionizable (c) Weak acid (d) Strong base
196. For a certain drug, the bile flow rate is 0.7 ml/min, the biliary drug concentration is 2g/ml and the plasma drug concentration is 0.8g/ml. What will be the bile clearance
- (a) 1.50 ml/min (b) 1.75 ml/min (c) 2.75 ml/min (d) 3 ml/min

INTRODUCTION TO COSMETIC TECHNOLOGY

1. Cosmetics are substances that are used to enhance
 - (a) Odor of human body
 - (b) Appearance of human body
 - (c) Both (a) and (b)
 - (d) None of the above
2. The primary component of beeswax are
 - (a) Esters (more than 70%)
 - (b) Alcohols
 - (c) Ether
 - (d) Phenols
3. The commonly used natural antioxidant in herbal cosmetics is
 - (a) Butylated Hydroxyanisole
 - (b) Butylated Hydroxytoluene
 - (c) Vitamin C
 - (d) None of the above
4. Which of these sunscreen ingredients is most likely to cause allergic reactions
 - (a) Avobenzone
 - (b) Zinc oxide
 - (c) Mexoryl SX
 - (d) Oxybenzone
5. Which of the following is natural occurring antioxidant.
 - (a) Vitamin C
 - (b) Vitamin E
 - (c) Alpha lipoic acid
 - (d) All of the above
6. Herbal drug preparations are prepared by
 - (a) Decoction
 - (b) Infusion
 - (c) Maceration
 - (d) All of the above
7. Soaps were originally made from
 - (a) Proteins
 - (b) Animal fats and vegetable oils
 - (c) Chemicals extracted from the soil
 - (d) Fats
8. Soap's work because the "water-loving" end of the soap molecule attracts a water molecule and the "water-hating" end attracts
 - (a) Other soap molecules
 - (b) Water molecules also
 - (c) Grease or dirt
 - (d) All of the above
9. The scientific term for "water-loving" is
 - (a) Hydrophilic
 - (b) Hydroxide
 - (c) Hydrophobic
 - (d) None of the above
10. The scientific term for "water-hating" is
 - (a) Hydroxide
 - (b) Hydrophilic
 - (c) Hydrophobic
 - (d) All of the above
11. The "water-loving" end of the soap molecule has a charge that is
 - (a) Positive
 - (b) Negative
 - (c) Either positive or negative
 - (d) Neutral
12. The water-repelling end of the soap molecule has a
 - (a) Negative charge
 - (b) Positive charge
 - (c) Neutral or no charge
 - (d) Both positive and negative charge
13. Hard water contains a lot of calcium and
 - (a) Magnesium salts
 - (b) Sodium salts
 - (c) Potassium salts
 - (d) All of the above
14. Soaps and detergents that can be easily broken down by bacteria in the environment to form harmless substances are termed
 - (a) Biodegradable
 - (b) Non-biodegradable
 - (c) Environmentally unfriendly
 - (d) None of the above

PRESCRIPTION

- Which component of the prescription is not always a requirement
 - Inscription
 - Subscription
 - Superscription
 - Prescriber's Drug Enforcement Administration (DEA) number
- The term prescription is derived from
 - Latin
 - Greek
 - English
 - French
- S is the Latin term for
 - Signa
 - Statim
 - Sumendus
 - Semi
- What piece of laboratory equipment is best-suited for accurately measuring the volume of a liquid
 - Graduated cylinder
 - Beaker
 - Erlenmeyer flask
 - More than one of the above
- Which one should be written on the top of a prescription
 - Patient name
 - Patient address
 - Patient father's name
 - Patient illness
- Alternishoris means
 - Every one hour
 - Every hour
 - Every two hours
 - Every fourth hour
- Prescription means
 - To write
 - To write before
 - To write later
 - All of the above
- Which piece of laboratory equipment can be used to store chemicals for long periods of time
 - Burette
 - Evaporating dish
 - Beaker
 - More than one of the above
- Superscription is represented by
 - K
 - P
 - Rx
 - S
- Rx means
 - You take
 - You give
 - You bring
 - All of the above
- Rx symbol represents _____ god
 - Venus
 - Jupiter
 - Mars
 - Saturn
- Primo mane meaning
 - Every morning
 - Early in the morning
 - Equal morning
 - Morning
- The independent variable in an experiment is
 - The variable you hope to observe in an experiment
 - The variable you change in an experiment
 - The variable that isn't changed in an experiment
 - None of these correct

PHARMACEUTICSS

112. Find the concentration of NaCl required to produce a solution isosmotic with blood plasma
 (a) 0.88 g per 100 ml (b) 0.28 g per 100 ml (c) 0.58 g per 100 ml (d) 1.18 g per 100 ml
113. Calculate the volume of 95% alcohol required to prepare 600 ml of 70% alcohol
 (a) 156 ml (b) 116 ml (c) 76 ml (d) 442 ml
114. Calculate the dose for a child that has a body surface area 0.57 m^2 , when the adult dose of a drug is 50 mg.
 (a) 17 mg (b) 20 mg (c) 7 mg (d) 30 mg
115. The dose of a drug is 5mg/Kg of body weight. What dose should be given to 110 lb women
 (a) 2 gr (b) 500 mg (c) 2 g (d) 5 gr
116. Using Fried's Rule, calculate the dose for a 5 month old child if the adult dose is 600 mg.
 (a) 20 mg (b) 40 mg (c) 80 mg (d) 100 mg
117. Using Clark's Rule, calculate the dose for a child weighing 12 kg if the adult dose is 700 mg.
 (a) 84 mg (b) 69 mg (c) 108 mg (d) 120 mg
118. Calculate the dose for a child whose body surface area is 0.43 m^2 if the adult dose is 500 mg.
 (a) 124 mg (b) 100 mg (c) 250 mg (d) 164 mg
119. Using Clark's Rule, calculate the dose for a child weighing 30 lbs if the adult dose is 500 mg.
 (a) 50 mg (b) 100 mg (c) 150 mg (d) 200 mg
120. The official dose represents
 (a) Bulk amount of drug suitable for adult
 (b) Average amount of drug administer within specific interval
 (c) Average range of drug quantity administered orally within 24 hours
 (d) Suitable amount of drug given daily through suitable route
121. Synergism is
 (a) Total action of two or more drugs equivalent to sum of individual drugs
 (b) Combination of two or more drugs whose action equal to greater than sum of individual drugs
 (c) Combined effect of drugs which is lesser than individual drug
 (d) Additional action of drug when its combination with unrelated drug
122. Tolerance is
 (a) Appropriate dose of drug is required to produce response
 (b) Suitable amount of drug required to produce response
 (c) Large dose of drug is required to elicit response
 (d) Normal dose of drug is required to elicit response
123. Tachyphlaxis is
 (a) Drug produce response other than pharmacological action
 (b) Large amount of drug is required to produce response
 (c) Cell receptors get blocked due to repeated administration of drugs
 (d) Change is electrolyte balance of due to drug
124. The strong purgatives should be avoided in women during
 (a) Menstruation (b) Leprosy (c) Malaria (d) All of the above
125. The effectiveness of drug formulation is generally controlled by its
 (a) Way of preparation (b) Route of administration
 (c) Patients habits (d) Patients Criteria
126. The drugs are more rapidly absorbed from the..... stomach

MATTER AND PROPERTIES OF MATTER

- Which bond is the strong bond among the following
(a) Molecular (b) Metal (c) Valence (d) Ionic
- Which substances exhibit a definite shape and orderly arrangement of units
(a) Gases (b) Crystalline (c) Amorphous (d) Liquids
- Crystalline substances exhibit — form
(a) Cubic (b) Tetragonal (c) Monoclinic (d) All of these
- Substances may be considered as super cooled liquids
(a) Crystalline (b) Polymorphic (c) Amorphous (d) All of these
- Some asymmetric molecules often exhibit a fourth state known as
(a) Solid (b) Mesophase (c) Liquid (d) Gases
- In the — state, the molecules are mobile in two directions and show about one axis
(a) Gases (b) Smectic (c) Nematic (d) None of these
- In the — state, the molecules are mobile in three directions
(a) Gases (b) Smectic (c) Nematic (d) None of these
- The change in the state occurs from solid to gaseous is called as
(a) Sublimation (b) Evaporation (c) Boiling (d) Melting
- Which materials do not have specific melting point but slowly gradually liquefy on heating
(a) Metal (b) Drugs (c) Glassy (d) None of these
- Which is defined as the heat which results in the change of matter without increasing the temperature
(a) Latent heat (b) Cloud point (c) Freezing point (d) None of these
- For molecules to exist as aggregates in solid, liquids and gases, — forces must exist
(a) Rheological (b) Intermolecular (c) Angle of repose (d) Tapped
- bonding is largely governed by electron orbital interaction
(a) Intermolecular (b) Gibb's (c) Helmholtz (d) None of these
- The arrangement of the atoms in a particular stereoisomer gives the of a molecule
(a) Equation (b) equilibrium (c) Negativity (d) Configuration
- Van der wall forces are present In — Interaction between the molecules
(a) Ionic (b) Anionic (c) Nonionic (d) Cationic
- Permanent dipoles are capable of inducing an electric dipole in nonpolar molecules which are easily polarisable to produce — Interaction
(a) Dipole induce dipole (b) Dipole dipole (c) Hydrogen bond (d) Covalent
- Dipole — Induced dipole Interaction between the molecules is also called as — forces.
(a) Covalent (b) Debye (c) London (d) All of these
- Induced dipole - Induced dipole interaction between the molecules is also called as — forces.
(a) London (b) Debye (c) Covalent bond (d) Hydrogen bond

145. Fluidity is a term associated with Newtonian fluids. An equivalent term in plastic flow fluids is
(a) Apparent viscosity (b) Flexibility (c) Mobility (d) Plastic viscosity
146. Dilatant flow is characterized as a reverse phenomenon of:
(a) Newtonian flow (b) Plastic flow (c) Pseudo plastic flow (d) Rheopexy
147. Deflocculated suspension with high concentration of the dispersed solids exhibits the flow of type:
(a) Dilatant (b) Newtonian (c) Plastic (d) Pseudo plastic
148. In antithixotropy, the down-curve is frequently positioned to: (with respect to up-curve
(a) Left. (b) Origin (c) Right (d) Superimposable
149. At equilibrium, the thixotropic behaviour of a pseudo plastic system exhibit the state of
(a) Gel (b) Paste (c) Sol (d) Wax
150. Which one of the following physical Property is NOT a rheological property
(a) Body and slip (b) Spreadability (c) Surface tension (d) Viscosity
151. The pseudo plastic flow behaviour can be explained by
(a) Apparent viscosity (b) Area of hysteresis loop
(c) Hysteresis loop (d) Yield value
152. High viscosity indicates one of the following relationships in a system. Which is relevant
(a) Free from intermolecular interactions (b) Intermolecular attractions are stronger
(c) Intermolecular attractions are weaker (d) Shape of the molecules is spherical
153. An emulsion of o/w type has the viscosity
(a) Greater than that of the internal phase
(b) Greater than that of the vehicle
(c) Less than that of the internal phase
(d) Less than that of the vehicle
154. Creep testing is applied to analyse the viscoelastic property of
(a) Emulsions (b) Lotions (c) Ointments (d) Suspensions
155. The system that undergoes gel-to-sol transformation is known as
(a) Elastic (b) Permanent deformation
(c) Shear thickening (d) Shear thinning
156. The type of viscosity specified in I.P. (Ostwald viscometer) is
(a) Absolute viscosity (b) Dynamic viscosity
(c) Kinematic viscosity (d) Viscosity coefficient
157. After giving the I.M. injection of procaine penicillin G, the process of forming a depot in the muscle is due to
(a) High yield value (b) Low consistency
(c) Low yield value (d) Rapid thixotropic recovery
158. Pick the reason for the calibration of an instrument
(a) Most of the instruments are not reliable
(b) To calculate the constant for the instrument
(c) To calculate the relative property
(d) To correct the errors in the working of an instrument
159. Plug flow is NOT observed in cone and plate viscometer. The reason is
(a) Cleaning and filling of sample is easy (b) Rate of shear is independent of the radius

HISTORICAL BACKGROUND DRUG LEGISLATION IN INDIA, CODE OF ETHICS FOR PHARMACISTS

- Who is chairmanship of Health Survey and Development Committee
(a) Sir justice Joseph Bhore (b) General S.L. Bhatia
(c) Dr. A.L. Mudaliar (d) None of the above
- Where is the Indian Pharmacopoeial Lab is situated
(a) Kolkata (b) Mumbai (c) Ghaziabad (d) Lucknow
- Bengal chemical and pharmaceutical works was started by
(a) Prof. T.K. Gajjar in 1901
(b) Acharya Prafulla Chandra Ray in 1903
(c) Prof. T.K. Gajjar in 1903
(d) Acharya Prafulla Chandra Ray in 1901
- The main objective of the pharmaceutical legislation is to ensure that the patient receives the required quality of drug that is previously tested and evaluated for its
(a) Satisfaction and efficacy (b) Safety and efficacy
(c) Safety and economy (d) Satisfaction and economy
- Chairman of Drugs Enquiry committee (1927) is
(a) R.N. Chopra (b) Joseph Bhore (c) SS. Bhatia (d) B. Mukherjee
- The committee appointed by government of India to look into the drug industry and various aspects of drugs like licensing price control, imports, role of foreign sector quality control was headed by
(a) Mudaliar (b) Bhatia (c) Hathi (d) Bhore
- First time in India, a chemist's shop was opened by came to India with East India company in Calcutta
(a) Mr. Bathgate (b) Mr. Hamilton (c) Ms. Elizabeth (d) Mr. Smith
- Health survey and development committee was appointed by government of India in
(a) 1945 (b) 1940 (c) 1943 (d) 1948
- In 1903, Who started a small factory at Parel, which led to development of Alembic Chemical Works Ltd. At Baroda
(a) Prof. T. K. Gajjar (b) Smith Stanistreet
(c) Acharya Prafulla Chandra Ry (d) Mr. Bathgate
- Who is a pioneer and father of Pharmaceutical Education in India
(a) Prof. T.K. Gajjar (b) Prof. M.L. Schroff (c) R.N. Chopra (d) A.P. Chandra ray
- At the first time in India, a chemist shop was opened in which year
(a) 1711 (b) 1946 (c) 1811 (d) 1902
- In 1935 United Province Pharmaceutical Association was established which later converted into

75. The Central Drugs Laboratory, Kolkata established under the D & C Act 1940, carries out the following functions EXCEPT
- Discovers newer and potent drugs
 - Forward samples of biological to Central Research Laboratory, Kasauli
 - Analyses the samples of drugs or cosmetics
 - Carries out special drug analysis assigned by the central and state governments
76. The manufacture of drugs other than those specified in schedule C and C1 should be carried out under the supervision of a competent person who should be
- A graduate in pharmacy
 - A post graduate in pharmacy
 - A graduate in pharmacy with 18 months experience in the manufacture of drugs
 - A graduate in pharmacy with 12 months experience in the manufacture of drugs
77. Which of the following schedule comes in year 2011 under the Drug & Cosmetic act
- XX
 - HX
 - WX
 - YX
78. The basic installation area for capsules according to Schedule M is
- 25 sq. m
 - 30 sq. m
 - 20 sq. m
 - 15 sq. m
79. Application, for a loan licence to manufacture cosmetics should be made in
- Form 31B
 - Form 31A
 - Form 31L
 - Form 31E
80. As per Schedule 'O' of the Drug and Cosmetics Rules 1945, the minimum Rideal Walker coefficients for Grade 1 Black disinfectant fluid is
- | | | | |
|----------|----------|----------|----------|
| [P] 18 | [Q] 10 | [R] 5 | [S] 14 |
| (a) P, R | (b) Q, S | (c) P, S | (d) R, S |
81. The chairman of the Drug Technical Advisory Board is
- The Drug Controller of India
 - The Director, Central Drug Laboratory, Kolkata
 - The President, Pharmacy Council of India
 - The Director General of Health Service
82. In case of, the function of Central Drugs Laboratory is carried out at Serologist Government Analyst is appointed by Central Government or State Government under section in relation to Ayurvedic, Siddha and Unani systems of medicine
- 20
 - 21
 - 33F
 - 21A
83. Schedule M and Y were introduced in D & C Act in the year
- 1982
 - 1988
 - 1985
 - 1980
84. Who among the following is an ex-officio member of Allopathic as well as Ayurvedic, Unani and Siddha DTAB
- The Director General of Health Services
 - The Drugs Controller of India
 - Director of the Central Drugs Laboratory, Kolkata
 - All of the above
85. Schedule F1 deals with the provisions applicable to the production of
- Ophthalmic preparations
 - Surgical dressings
 - Bacterial and viral vaccines
 - Umbilical tapes
86. Which of the following statement is INCORRECT
- Pharmacy act implement 4 March 1948

PREFORMULATION STUDIES

1. Preformulation studies is about ensuring
 - (a) Efficacy
 - (b) Stability
 - (c) Safety
 - (d) All of the above
2. Amorphous forms shows
 - (a) Poor solubility
 - (b) Good solubility
 - (c) Long range order
 - (d) None of the above
3. Crystal forms show this structure
 - (a) 2D
 - (b) 3D
 - (c) Short range
 - (d) None of the above
4. Two or more molecules are hydrogen bonded to each other
 - (a) Crystals
 - (b) Polymorphs
 - (c) Cocrystals
 - (d) All of the above
5. DSC is
 - (a) Differential scanning calorimeter
 - (b) Differential scattering calorimeter
 - (c) Digital scanning calorimeter
 - (d) None
6. X ray diffraction pattern indicates
 - (a) Solubility
 - (b) Permeability
 - (c) Crystallinity
 - (d) Functional groups
7. SEM can analyse
 - (a) Crystallinity and solubility
 - (b) Flow property
 - (c) Shape and size
 - (d) Complexity
8. Bragg's law define
 - (a) Solubility
 - (b) Shape
 - (c) Diffraction
 - (d) All of the above
9. Crystal forms shows
 - (a) Rapid duration of action
 - (b) Short duration of action
 - (c) Long duration of action
 - (d) Onset of action
10. Estrone shows how many polymorphs
 - (a) 4
 - (b) 2
 - (c) 3
 - (d) None of the above
11. It is the first step in the rational development of a dosage form of a drug substance alone and when combined with excipients
 - (a) Preformulations studies
 - (b) Preliminary evaluation
 - (c) Drug excipients compatibility study
 - (d) Post formulation studies
12. Choose the correct statement regarding the Preformulation studies
 - I. Study of physical and chemical properties of only active pharmaceutical ingredients
 - II. Preformulation studies is necessary for the safe effective and stable dosage form
 - III. Preformulation commences when a newly synthesized drug shows a sufficient pharmacologic promise in animal model

Choose the correct answer

 - (a) Option I is correct
 - (b) Option II is correct
 - (c) Both I and II are corrects
 - (d) Both II and III are corrects
13. Objectives of Preformulations studies
 - (a) To establish the necessary physicochemical parameters of new drug substances

99. Structured vehicle is included in the formulation of a suspension in order to
(a) Decrease the interfacial tension (b) Prevent the caking of the sediment
(c) Prevent the sedimentation of particles (d) Reduce the size by chemical means
100. In the preparation of a structured vehicle which one of the following substances is used
(a) Bismuth subnitrate (b) Ethyl alcohol (c) Glycerine (d) Methyl cellulose
101. Which type of colloidal material is used commonly in the preparation of a structured vehicle
(a) Association (b) Hydrophilic (c) Hydrophobic (d) Inorganic
102. When charcoal powder is dusted on the surface of water the contact angle (in degrees) that the charcoal exhibits is
(a) Zero (b) One (c) 90 (d) 180
103. A maximum sedimentation volume will be obtained when zeta potential is
(a) Negative (b) Neutral (c) Positive (d) Zero
104. A substance is dissolved in water. The suspension has exhibited a negative apparent zeta potential. Identify the related substance.
(a) Aluminum chloride (b) Bismuth subnitrate (c) Gelatin (d) Sulfaguanidine
105. Calcium hydrogen phosphate is dissolved in water. The apparent zeta potential initially is
(a) Negative (b) Neutral (c) Positive (d) Zero
106. Which one of these preparations is NOT qualified as a suspension
(a) Barium meal for radio diagnostic use
(b) Calamine lotion for antiseptic use
(c) Procaine penicillin G for intramuscular injection
(d) Vitamin B complex tonic as nutritional supplement
107. The ratio of the ultimate volume of sediment to the actual volume of sediment before settling is called
(a) Sedimentation volume (b) Degree of flocculation
(c) Emulsification volume (d) Phase volume ratio
108. The ratio of the sedimentation volume in case of flocculated suspension to the sedimentation volume in case of deflocculated suspension is called
(a) Sedimentation volume (b) Degree of flocculation
(c) Emulsification volume (d) Phase volume ratio
109. The size of dispersed particles in coarse dispersion ranges from
(a) 1 μm to 100 μm (b) 1 nm to 100nm
(c) 1mm to 100cm (d) Less than 1 μm
110. Which of the following are the desired features of good suspension
(a) The particles which settle down should not deposit at the bottom as hard cake. They must be easily re-suspended by moderate shaking.
(b) It should be free from grittiness.
(c) It should be stable in case of physical chemical and microbial attack.
(d) All of the above
111. In flocculated suspension the rate of sedimentation is
(a) Low (b) More (c) Zero (d) 50%
112. If zeta potential of a suspension is high then the system will be considered as
(a) Deflocculation (b) Flocculation (c) Emulsion (d) Sedimentation
113. Which of the following is/are the properties of flocculated suspension

DISPENSING AND HOSPITAL PHARMACY

1-d	2-a	3-c	4-a	5-a	6-c	7-b	8-c	9-c	10-a
11-b	12-b	13-b	14-d	15-c	16-b	17-b	18-d	19-c	20-b
21-a	22-b	23-c	24-c	25-b	26-d	27-a	28-d	29-b	30-b
31-c	32-c	33-b	34-c	35-c	36-a	37-a	38-d	39-b	40-b
41-a	42-d	43-b	44-a	45-a	46-d	47-d	48-d	49-d	50-a
51-a	52-a	53-a	54-a	55-b	56-c	57-d	58-a	59-b	60-a
61-c	62-c	63-a	64-d	65-c	66-c	67-c	68-b	69-c	70-a
71-a	72-a	73-b	74-c	75-d	76-a	77-d	78-a	79-b	80-c
81-c	82-a	83-a	84-c	85-b	86-b	87-a	88-a	89-a	90-c
91-c	92-a	93-a	94-b	95-a	96-c	97-a	98-b	99-b	100-b
101-b	102-d	103-a	104-d	105-d	106-c	107-a	108-b	109-c	110-a
111-a	112-a	113-d	114-a	115-b	116-a	117-d	118-a	119-b	120-b
121-b	122-c	123-c	124-a	125-b	126-a	127-d	128-a	129-d	130-d
131-a	132-a	133-a	134-a	135-a	136-c	137-b	138-c	139-c	140-b
141-a	142-c	143-a	144-a	145-b	146-a	147-d	148-c	149-b	150-b
151-b	152-d	153-a	154-d	155-c	156-d	157-b	158-c	159-a	160-b
161-a	162-c	163-a	164-b	165-d	166-b	167-c	168-c	169-d	170-a
171-c	172-a	173-b	174-c	175-a	176-a	177-b	178-b	179-a	180-c
181-d	182-b	183-d	184-b	185-c	186-a	187-c	188-a	189-b	190-c
191-c	192-a	193-c	194-b	195-b	196-a	197-d	198-c	199-d	200-c
201-b	202-c	203-c	204-c	205-a	206-c	207-d	208-b	209-a	210-a
211-a	212-a	213-a	214-b	215-b	216-b	217-c	218-a	219-b	220-c
221-a	222-b	223-a	224-c	225-d	226-a	227-b	228-a	229-c	230-a
231-a	232-b	233-b	234-a	235-b	236-b	237-b	238-b	239-a	240-c
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251-c	252-a	253-b	254-a	255-a	256-a	257-b	258-d	259-a	260-c
261-c	262-a	263-c	264-c	265-a	266-d	267-c	268-b	269-c	270-d
271-c	272-a	273-c	274-b	275-b	276-c	277-c	278-c	279-c	280-c

PHYSICAL PHARMACY

1-b	2-b	3-d	4-c	5-b	6-b	7-c	8-a	9-c	10-a
11-b	12-a	13-d	14-c	15-a	16-b	17-a	18-a	19-c	20-b
21-a	22-b	23-c	24-b	25-d	26-b	27-b	28-d	29-c	30-a
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41-d	42-b	43-d	44-a	45-c	46-b	47-b	48-a	49-d	50-c
51-b	52-c	53-a	54-c	55-b	56-b	57-a	58-a	59-a	60-b
61-c	62-b	63-b	64-d	65-a	66-b	67-d	68-c	69-b	70-a
71-c	72-d	73-b	74-d	75-d	76-a	77-b	78-c	79-b	80-c
81-b	82-d	83-d	84-a	85-c	86-a	87-b	88-b	89-c	90-a
91-d	92-d	93-a	94-d	95-d	96-c	97-a	98-b	99-b	100-a
101-b	102-a	103-c	104-a	105-c	106-c	107-b	108-c	109-d	110-c
111-d	112-b	113-a	114-d	115-c	116-b	117-a	118-a	119-d	120-b
121-a	122-c	123-b	124-a	125-c	126-a	127-d	128-b	129-c	130-c
131-b	132-c	133-c	134-d	135-a	136-c	137-d	138-b	139-a	140-c

141-d	142-c	143-c	144-a	145-c	146-c	147-a	148-c	149-c	150-c
151-a	152-b	153-a	154-c	155-d	156-c	157-d	158-d	159-c	160-a
161-b	162-a	163-d	164-a	165-c	166-b	167-a	168-c	169-a	170-c
171-d	172-c	173-d	174-d	175-c	176-c	177-c	178-c	179-d	180-b
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371-c	372-c	373-d	374-a	375-c	376-d	377-c	378-a	379-b	380-b
381-d	382-b	383-a	384-a	385-d	386-a	387-c	388-c	389-b	390-b
391-a	392-d	393-a	394-d	395-a	396-	397-a	398-a	399-d	400-d

PHARMACEUTICAL JURISPRUDENCE

1-a	2-c	3-d	4-b	5-a	6-c	7-a	8-c	9-a	10-b
11-c	12-b	13-a	14-c	15-b	16-b	17-c	18-a	19-b	20-c
21-b	22-a	23-b	24-c	25-a	26-d	27-b	28-b	29-b	30-b
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141-a	142-c	143-b	144-a	145-d	146-b	147-a	148-b	149-a	150-d

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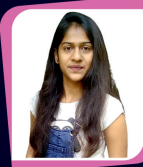
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SOUMYAJIT
AIR - 126



SUSHANT
AIR - 147



NAMRTA
AIR - 173



SURENDRA
AIR - 192



KRUSHNA
AIR - 204



ADITYA
AIR - 223



YASH
AIR - 223



MAYURI
AIR - 251



AMRENDRA
AIR - 424



AZAR RAZAK
AIR - 468



KHLANDAR
AIR - 497



PRIYANKA
AIR - 556



KAJOL
AIR - 604



SATA DEEP
AIR - 629



ASMA KHANAM
AIR - 651



SUBRAT
AIR - 695



TAVADE
AIR - 795



DIPIN
AIR - 911



ADRIJA
AIR - 958



JOREPALLI
AIR - 1022



NITIN
AIR - 1155



K. MARI
AIR - 1198



PRIYA
AIR - 1198



AMIT
AIR - 1321



RAKESH
AIR - 1361



SEKHAR
AIR - 1404



SUDAM
AIR - 1731



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NILESH
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NIRANJAN
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AIR - 2813



PHARMACY INDIA

Dayalpuram, Street -4, Khatauli
Muzaffarnagar, 251201

Phone : 8171313561, 8006781759

E-mail : pharmacyindia24@gmail.com

