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Paper Code : BPH-502

Roll No. | | | | | | | | | | |

B.PHARM.

(3rd YEAR, V SEMESTER) EXAMINATION

PHARMACEUTICS-V (PHARMACEUTICAL TECHNOLOGY-I)

Time : 3 Hours] *[Max. Marks : 70*

***Note:** Attempt all questions. Each question carry equal marks.*

Q.1. Attempt *All* the parts. Choose one correct option. **[1×14=14]**

(i) Benzyl Alcohol is classified as:

(a) Emulsifying agent (b) Preservative

(c) Diluent (d) Suspending agent

(ii) Phenyl Mercuric belongs to which class of preservative:

(a) Class I (b) Class II

(c) Class III (d) Class IV

(iii) Xanthum Gum is used in some liquid formulations to :

(a) Regulated pH (b) Control viscosity

(c) Enhance Solubility (d) Enhance Elagance

(iv) Which of the following need to be sterile?

(a) Eye drops (b) Shampoos

(c) Syrup (d) Sprays applied to skin

(v) A patient who cannot have products containing alcohol should not take:

(a) Solutions (b) Suspension

(c) Elixirs (d) Syrup

(vi) Turpentine liniment is :

(a) Emulsion (b) Solution

(c) Tincture (d) Suspension

(vii) Coulter counter is used in determination of :

(a) Particle surface area (b) Particle size

(c) Particle volume (d) All of above

(viii) Aspartame has the main disadvantage as:

(a) Carcinogenic (b) Less sweeter than sugar

(c) Hygroscopic (d) Bitter After taste

(ix) --------- is not an indirect method of assessing flow properties of powder.

(a) Angle of repose (b) Hopper flow rate

(c) Shear shell determination (d) Bulk density measurement

(x) Lanolin is :

(a) Anhydrous wool fat (b) Lantrol

(c) Hydrous wool fat (d) None of above

(xi) Wool alcohol is obtained from wool fat by treating with:

(a) Acid (b) Alkali

(c) Ester (d) Amide

(xii) Propellant 114 is :

(a) Butane (b) Trichlorofluoro methane

(c) Dichlorofluoromathane (d) Difluoromethane

(xiii) ---------- metal is used in Aerosol containers.

(a) Iron (b) Manganese

(c) Zinc (d) Stainless steel

(xiv) In nail polishes, following polymer is used as film formers:

(a) Nitrocellulose (b) HPMC

(c) Cellulose Acetate Phthalate (d) Polylactic acid

Q.2. Attempt any *Four* questions : **[3.5×4=14]**

(1) Define preformulation studies. Write the application of polymorphic study of crystalline compounds in increasing their bioavailability.

(2) Formulation of Cold Cream.

(3) Evaluation of Face powders.

(4) Explain various methods of enhancement of bioavailability of a drug.

(5) Write short notes on theories of Emulsification.

Q.3. Attempt any *Two* of the following : **[2x7=14]**

(a) Define and classify semisolid dosage forms. Describe various ointment bases.

(b) Write a note on dentifrices.

(c) Write cold filling of pharmaceutical aerosols.

Q.4. Answer any *Two* questions : **[2×7=14]**

(a) Define displacement value. How displacement value of drug is useful in the formulation of suppository.

(b) Formulation and evaluation of suspension.

(c) Describe in detail about mechanism of drug penetration through skin. What are various factors that influmes drug penetration through skin.

Q.5. Attempt any *one* question: **1×14=14]**

(a) Describe in detail about Solubility Analysis in preformulation studies.

(b) Define and classify cosmetics. Explain various components of pharmaceutical aerosols.

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B.PHARM.

(3rd YEAR, V SEMESTER) EXAMINATION PHARMACEUTICS –V (PHARMACEUTICAL TECHNOLOGY-I)

Time : 3 Hours] *[Max. Marks : 70*

Note: *Attempt all questions. Each question carry equal marks.*

Q.1. Choose correct Answer. **[1×14=14]**

(i) Which of the following excipients may be used to limit to presence of microorganisms in a liquit formulation?

(a) Purified water (b) Sodium lavryl sulphate

(c) Benzalkonium chloride (d) Ascorbic acid

(ii) Cold cream is an example of:

(a) Suspension (b) O/W emulsion

(c) W/O emulsion (d) O/W/O emulsion

(iii) What is the role of xanthum gum with in some liquid formulations.

(a) Regulate pH (b) Control viscosity

(c) Enhance solubility (d) Enhance stability

(iv) Particile size analysis is mainly done for-

(a) Dose uniformatiy (b) Dissolution rate

(c) Stability (d) All of above

(v) A patient who cannot have products containing alcohol should not take:

(a) Solution (b) Suspension

(c) Syrup (d) Elixir

(vi) Turpentine liniment is

(a) Emulsion (b) Suspension

(c) Solution (d) Tincture

(vii) Lanolin is-

(a) Anhydrous wool fat (b) Hydrous wool fat

(c) Lantrol (d) Atlas-G-1794

(viii) Coulter counter is used in determination of-

(a) Particle surface area (b) Particle size

(c) Particle volume (d) All of above

(ix) Carr's index is used to determine-

(a) Powder flow (b) Particle size

(c) Elasticity (d) Polymorphism

(x) Particle size analysis is mainly done for

(a) Dose uniformity (b) Dissolution rate

(c) Stability (d) All of above

(xi) _____is used in patch testing.

(a) Ointments (b) Pastes

(c) Creams (d) Jellies

(xii) Emulsified theobroma oil is prepared by using all except

(a) Glyceryl monostearate (b) Lanette wax

(c) Cetyl alcohol (d) Stearic acid

(xiii) Inhalant aerosols are generally prepared by which type of propellants?

(a) Fluorocarbon (b) Hydrocarbon

(c) Compressed gases (d) None of above

(xiv) The role of borax in cold creams is-

(a) Anti-microbial agent (b) As skin abrasive

(c) Emussifer (d) Antioxidant

Q.2. Attempt any *Four* questions : [3.5×4=14]

(a) Explain the role of Preformumation study in the development of a new drug entity.

(b) Explain various evaluative tests for lipstick.

(c) Solid state stability of a drug.

(d) What are various methods of enhacement of solubility of a drug in water?

(e) Angle of Repose & its application.

Q.3. Attempt any *Two* questions : [2x7=14]

(a) Classify various semisolid dosage forms. Classify various ointment bases.

(b) Describe in detail about mechanism of drug penetration through skin. What are various factos that influences penetration.

(c) Write detail about formulation and evaluation of jellies

Q.4. Attempt any *Two* questions : [2×7=14]

(a) Define displaement value. How displacement value of drug is useful in the formulation of suppository.

(b) Explain filing processes of pharmaceutical aerosols.

(c) Distinguish between Flocculated and deflocculated suspension.

Q.5. Attempt any *one* question: [1×14=14]

(a) Explain in detail about various theories of emulsification. Give a detailed account on evaluation of suspension.

(b) Explain in detail about Solubility analysis in performulation.

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B.PHARM.
(3rd YEAR, V SEMESTER) EXAMINATION
PHARMACOLOGY-I

Time : 3 Hours] *[Max. Marks : 70*

***Note:** Attempt all questions. Each question carry equal marks*

Q.1. Attempt *All* the parts. Choose one correct option. **[1×14=14]**

(i) What type of drug is propranalol ?

(a) Anticonvulsive (b) Antihyhpertensive

(c) Anti nauseant (d) Anti histamine.

(ii) Which of the following reaction is Phase II & not Phase I ?

(a) oxidation (b) Reduction

(c) conjugation (d) Hydrotisis

(iii) Levodopa is used in the treatment of

(a) Migraine (b) Parkinsonism

(c) Anxiety (d) Ulcer

(iv) For intravenous dosages, what is the bio availability assumed to be ?

(a) 0% (b) 25%

(c) 50% (d) 100%

(v) Which of the following metabolically active tissues is the principle organ for drug metabolism?

(a) Skin (b) Kidney

(c) Liver (d) Lungs

(vi) Competitive Antagonist of acetylcholine is

(a) Adernaline (b) Atropine

(c) Both a & b (d) None of these

(vii) Pharmacodynamics is the effect of the _____

(a) Body of the drug (b) Drug on a drug

(c) Drug on a body (d) None of these

(viii) Which of the following is not a pharmacological effect of morphine?

(a) Constriction of pupils (b) CNS depression

(c) Diarrhoea (d) Respiratory depression

(ix) When a β - agonist bond to GPCR?

(a) there is a fall in c-AMP (b) There is increase in c-AMP

(c) Has no effect on c-AMP (d) Decrease adenyl cyclase

(x) Which of the following is the amount of a drug absorbed per the amount administered?

(a) Bioavailability (b) Bioequivalence

(c) Drug absorption (d) Bioinequivalence

(xi) Which of the following is considered the therapeutic index (or ratio) :

(a) LD_{50} / ED_{50} (b) ED_{50}/LD_{50}

(c) ED_{50}/TD_{50} (d) None of these

(xii) GPCR are also called as -

(a) Ionotropic Receptors (b) Metabotropic Receptors

(c) Cytosolic receptors (d) None of these

(xiii) Which of the following enteral administration routes has the largest first pass effect?

(a) Oral (b) Rectal

(c) Buccal (d) Sublingual

(xiv) Identify the drug used in the treatment of depression

(a) Fluoxetine (b) Aspirin

(c) levodopa (d) Atropine.

Q.2. Write a short note on any *Four* questions : **[3.5×4=14]**

(1) Stages of anesthesia

(2) Advantages of parenteral route & oral route

(3) Types of Seizure.

(4) Tolerance

(5) Apparent volume of distribution.

Q.3. Attempt any *Two* of the following : **[2x7=14]**

(a) Write a note on route of drugs administration.

(b) Classify sympathomimetics. Write down pharmacology of adrenaline.

(c) Write a note on drug dependence.

Q.4. Answer any *Two* questions : **[2×7=14]**

(a) Write a detailed note on Biosynthesis, storage release of Adrenaline.

(b) Classify narcotic analgesics. Give their mechanism of action.

(c) Classify anti-parkinsonism drugs, explain their mechanism.

Q.5. Attempt any *one* question: **1×14=14]**

(a) Define transducer mechanism. Enlist various kind of receptors and explain transducer mechanism of GPCR in detailed.

(b) Classify Sedative & Hypnotics. Write their mechanism of action, therapeutic uses and adverse effects.

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B.PHARM.

(3rd YEAR, V SEMESTER) EXAMINATION

PHARMACEUTICAL CHEMISTRY-V

(MEDICINAL CHEMISTY-I)

Time : 3 Hours] *[Max. Marks : 70*

***Note:** Attempt all questions. Each question carry equal marks.*

Q.1. Attempt *All* the parts. Choose one correct option. [1×14=14]

(i) Which one of the following is a starting material of ketamine synthesis.

(a) D-chloroaacetanitrile (b) Diethyle malonate

(c) Nitrobenzene (d) All

(ii) Which of the following is Dissociative anesthetic

(a) Diazepam (b) Thiopental

(c) Ketamine (d) All

(iii) The most potent narcotic agonist is :

(a) Naltrezone

(b) Naloxone

(c) Nalorphine

(d) all

(iv) Which is the starting material of bio synthesis of Acetylcholine

(a) L-Serine (b) L-cysteine

(c) Codeine (d) All

(v) Neostigmine Act as: -

(a) Anti-Cholinesterase (b) Agonist

(c) Antagonist (d) All

(vi) Toxic CNS side effect of Antimuscarinic could be treated with

(a) Physostigmine (b) Morphine

(c) Pilocarpine (d) All

(vii) Which of the following is obtained from natural product.

(a) Pilocarpine (b) Salbutamol

(c) Neostigmine (d) Paracetemol.

(viii) Which of the following have antispasmodic action

(a) Dicyclomine (b) Ranitidine

(c) Ciproflaxacin (d) other

(ix) Which of the following is used in the treatment of Zollinger Ellison Syndrome

(a) Omeprazole (b) Cetrizine

(c) Promethazine (d) other

(x) Major route of excretion of general (Volatile) anesthesia is

(a) Lungs (b) Liver

(c) Kidney (d) other

(xi) Bradykinesia associated with

(a) Parkinson's disease (b) cancer

(c) fever (d) all

(xii) Which is the important character of local Anesthetic

(a) It should be effective topically and systematically (b) it show maximum irritation

(c) Should reversible action (d) all

(xiii) Anesthesia of mucous membrane is called -

(a) topical (b) Nerve block

(c) Infilteration (d) other

(xiv) Starting material of Lidocaine synthesis.

(a) 2.6 xylidine (b) Toluene

(c) Benzoic acid (d) other.

Q.2. Attempt all *Four* questions : **[3.5×4=14]**

(1) Write synthesis of imipramine.

(2) give classification of Anticonvulsants with example.

(3) Write synthesis of Levo-dopa.

(4) Write MAO of valproic acid.

Q.3. Attempt any *Two* of the following : **[2x7=14]**

(a) Write synthesis and SAR. Of Thiopental.

(b) Give synthesis and MAO of Phenytoin.

(c) Classify general Anesthetics with example.

Q.4. Answer all *Two* questions : **[2×7=14]**

(a) What is opoid analgesics. Write the synthesis of Pethidine.

(b) Explain the concept of Prodrugs.

Q.5. Attempt any *one* question: **1×14=14]**

(a) What are Neuromuscular blocking agents?

(b) Give synthesis, SAR, MAO and use of Diazepam.

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