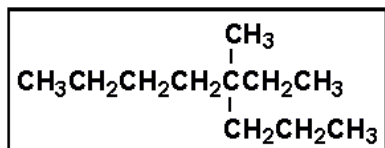


Diploma in Pharmacy
Second Year Main Examination, Aug-Sep 2020
Pharmaceutics-II [DPY-201]

Time: 3:00 Hrs**Max Marks 80****Note : (i) Attempt any five questions.****(ii) All questions carry equal marks.****Part-A****Q.1 Multiple Choice Questions.****[1×20 = 20 Marks]**

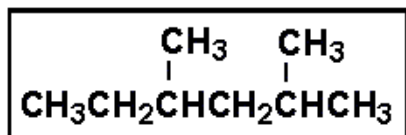
- (i) Physical change may almost be-
- | | |
|-------------|---------------|
| (a) Visible | (b) Invisible |
| (c) Clear | (d) Turbid |
- (ii) _____ compatibility may be corrected by changing the order of mixing-
- | | |
|---------------|---------------|
| (a) Delayed | (b) Immediate |
| (c) Tolerated | (d) Adjusted |
- (iii) Liquefaction is the example of _____ incompatibility-
- | | |
|-------------------|------------------|
| (a) Immediate | (b) Delayed |
| (c) Instantaneous | (d) Both a and b |
- (iv) Which one of the following is not a route of administration-
- | | |
|----------------------|-----------------|
| (a) Intravenous (IV) | (b) Oral |
| (c) Topical | (d) Dissolution |
- (v) A rectal suppository is used to treat a fever. This would represent what type of drug delivery-
- | | |
|--------------------------|-----------------------------|
| (a) Parenteral and local | (b) Parenteral and systemic |
| (c) Enteral and local | (d) Enteral and systemic |
- (vi) Which form of the drug has the highest bioavailability-
- | | |
|--------------------|---------------|
| (a) Coated tablets | (b) Solutions |
| (c) Tablets | (d) Emulsions |
- (vii) Which coating is thin and dissolve rapidly-
- | | |
|---------------------|---------------------|
| (a) Sugar coating | (b) Film coating |
| (c) Enteric coating | (d) Sealing coating |
- (viii) From the below options which will be the most widely used form of dosage-
- | | |
|--------------|---------------|
| (a) Emulsion | (b) Solutions |
| (c) Tablets | (d) Powders |

- (ix) How might solid sodium carbonate be obtained from sodium carbonate solution
 (a) Centrifugation (b) Filtration
 (c) Evaporation (d) It cannot be extracted
- (x) What is the best description of blood-
 (a) Sol (b) Foam
 (c) Solution (d) Aerosol
- (xi) Which one of the following dispersions does not have liquid continuous phase-
 (a) Nanosuspension (b) Microemulsion
 (c) Gel (d) Foam
- (xii) Nasal administration is commonly used for the relief of-
 (a) Headache (b) Cough
 (c) Sore throat (d) Congestion
- (xiii) Name two different types of inhaler-
 (a) MDI & API (b) IV & SC
 (c) DPI & MDI (d) GIT & ATP
- (xiv) Which of the following dosage forms delivers the API to the GI tract-
 (a) Rectal suppositories (b) Nasal sprays
 (c) Vaginal pessaries (d) Eye drops
- (xv) Ocular administration involves the treatment of which area-
 (a) The skin (b) The eyes
 (c) The ears (d) The Lungs
- (xvi) Of the following oral liquid formulations which would be considered as an oropharyngeal formulation-
 (a) Syrup (b) Elixir
 (c) Mouthwash (d) Linctus
- (xvii) Which of the following formulations would not be applicable to ocular administration-
 (a) Solution (b) Liniment
 (c) Suspension (d) Ointment
- (xviii) Process control is carried out-
 (a) Before Production (b) During Production
 (c) After production control (d) All of the above
- (xix) Low cost, higher volume items requires-



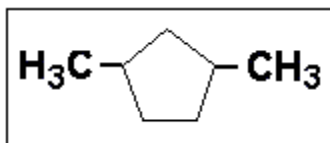
- a) 5-methyl-5-ethyloctane
 b) 5-methyl-5-propylheptane
 c) 4-ethyl-4-methyloctane
 d) 3-methyl-3-propyloctane

(iv) Select the correct IUPAC name for-



- a) 1,1,3-trimethylpentane
 b) 1-ethyl-1,3-dimethylbutane
 c) 2,4-dimethylhexane
 d) 3,5-dimethylhexane

(v) Select the correct IUPAC name for-

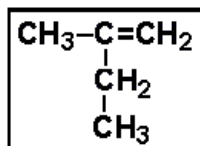


- a) 1,4-dimethylcyclopentane
 b) 1,3-dimethylcyclopentane
 c) 2,5-dimethylcyclopentane
 d) 2,3-dimethylcyclopentane

(vi) The general formula for noncyclic alkenes is-

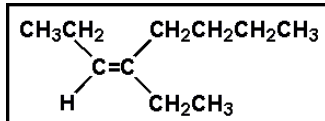
- a) C_nH_{2n+2}
 b) C_nH_{2n}
 c) C_nH_{2n-2}
 d) C_nH_{n+2}

(vii) The correct name for the compound given below is-



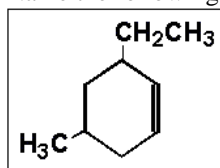
- a) 2-methyl-1-butene
 b) 2-ethyl-1-propene
 c) 2-ethyl-1-pentane
 d) 3-methyl-2-butene

(viii) Select the best name for:



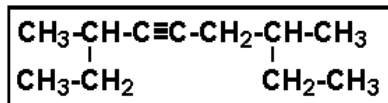
- a) 4-ethyl-cis-3-octene
 b) 4-ethyl-trans-3-octene
 c) 4-butyl-cis-3-hexene
 d) 5-ethyl-trans-5-octene

(ix) Name the following compound-



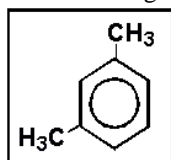
- a) 6-ethyl-4-methylcyclohexene b) 6-ethyl-3-methylcyclohexene
 c) 3-ethyl-5-methylcyclohexene d) 6-ethyl-4-methylcyclohex-1-ene

(x) What is the IUPAC name of the following compound-



- a) 2,6-diethyl-3-nonyne b) 2,5-diethyl-3-nonyne
 c) 3,7-dimethyl-5-nonyne d) 3,7-dimethyl-4-nonyne

(xi) The following chemical structure represents a molecule of what molecular formula-



- a) C_8H_{10} b) C_6H_6
 c) C_6H_8 d) C_8H_{12}

(xii) How many actual double bonds does the benzene ring possess?

- a) None, carbon-carbon bonds in benzene are delocalized around the ring
 b) 1 double bond
 c) 2 double bonds
 d) 3 double bonds

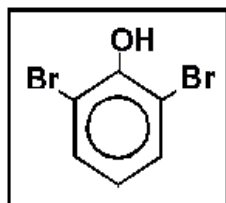
(xiii) Para-xylene is the same as-

- a) 1,2-dimethylbenzene b) 1,3-diethylbenzene
 c) 1,3-dimethylbenzene d) 1,4-dimethylbenzene

(xiv) Which of the following formulas represents an alkene-

- a) $\text{CH}_3\text{CH}_2\text{CH}_3$ b) CH_3CH_3
 c) $\text{CH}_3\text{CH}_2\text{CHCH}_2$ d) $\text{CH}_3\text{CH}_2\text{Cl}$

(xv) What is the name of the following compound-



- a) 1,3-dibromophenol b) 2,5-dibromophenol
 c) 2,6-dibromophenol d) M-dibromophenol

(xvi) Which one of the following is a secondary alcohol-

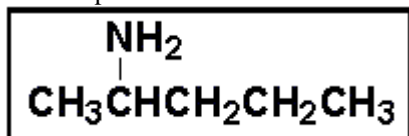
- a) $\text{CH}_3\text{CH}_2\text{OH}$ b) CH_3OH
 c) $\text{CH}_3\text{CH}(\text{OH})\text{CH}_3$ d) $(\text{CH}_3)_3\text{COH}$

(xvii) Select the IUPAC name for: $(\text{CH}_3)_2\text{CHCH}(\text{OH})\text{CH}_2\text{C}(\text{CH}_3)_3$.

- a) 2,5,5-trimethyl-3-hexanol b) 1,1,4,4-pentamethylbutanol
 c) 1,1-dimethylisopentanol d) 2,5-dimethyl-4-hexanol

- (xviii) Which is NOT a physical property of alcohols or phenols-
- Phenols are generally only slightly soluble in water.
 - The solubilities of normal primary alcohols in water decrease with increasing molecular weight.
 - The hydroxyl group of an alcohol is nonpolar.
 - Due to hydrogen bonding, boiling points of alcohols are much higher than those of corresponding alkanes.
- (xix) Give the IUPAC name of this compound: $\text{CH}_3\text{OCH}_2\text{CH}_3$ -
- Dimethyl ether
 - Methoxyethane
 - Methylethyloxiide
 - Propyl ether

- (xx) The compound below is classified as a _____ .



- Primary amine
 - Secondary amine
 - Tertiary amine
 - Primary amide
- Q.2 Write Short note on- (any 4)
- Nucleophilic substitution reaction with example..
 - Synthetic utility of diazonium salts..
 - Methods of preparation of alkynes.
 - Basicity of amines.
 - Inductive effect.
 - Free radical reaction.
 - Hyper conjugation.
 - Conjugated dienes.
 - Resonance effect.
- Q.3
- Explain the Markovnikov's rule including the mechanism and with an example.
 - What are Grignard reagent and explain with one example?
- Q.4
- Explain Williamson ether Synthesis and Riemticman reaction?
 - Explain the preparation of Glycerol?
- Q.5
- Discuss cannizaro and crossed cannizaro reaction?
 - Write any two method of preparation of carboxylic acid with its mechanism?
- Q.6
- Explain Bayer's strain theory?
 - Give preparation assay, use of Dimercaprol and Hexamine?
- Q.7
- Give synthetic utility of diazonium salts?
 - Explain mechanism of Halogenation of alkanes. Discuss selectivity of halogens in this reaction?
- Q.8
- Define aromatic electrophilic substitution reactions. Discuss the reaction and mechanism of nitration sulphonation
 - Define aromatic electrophilic substitution reactions. Discuss the reaction and mechanism of friedel-craft reaction.

Enrollment No.....

Diploma in Pharmacy
Second Year Main Examination, Aug-Sep 2020
Pharmacology & Toxicology [DPY-203]

Time: 3:00 Hrs

Max Marks 80

Note : Attempt any five questions. Each question carries equal marks.

Q.1 Attempt multiple choice questions- (Any eight)

- (xxi) Pharmacokinetics is:
- a) The study of biological and therapeutic effects of drugs
 - b) The study of absorption, distribution, metabolism and excretion of drugs
 - c) The study of mechanisms of drug action
 - d) The study of methods of new drug development
- (xxii) What does “pharmacokinetics” include?
- a) Complications of drug therapy
 - b) Drug biotransformation in the organism
 - c) Influence of drugs on metabolism processes
 - d) Influence of drugs on genes
- (xxiii) Tick the second messenger of G-protein-coupled (metabotropic) receptor:
- a) Adenylyl cyclase
 - b) Sodium ions
 - c) Phospholipase C
 - d) cAMP
- (xxiv) The primary mechanism of action of local anesthetics is:
- a) Activation of ligand-gated potassium channels
 - b) Blockade of voltage-gated sodium channels
 - c) Stimulation of voltage-gated N-type calcium channels
 - d) Blockade the GABA-gated chloride channels
- (xxv) Indicate the location of M2 cholinoreceptor type:
- a) Heart
 - b) Glands
 - c) Smooth muscle
 - d) Endothelium
- (xxvi) Parasympathomimetic drugs cause:
- a) Bronchodilation
 - b) Mydriasis
 - c) Bradycardia
 - d) Constipation
- (xxvii) Which of the following cholinomimetics is used in the treatment of atropine intoxication?
- a) Neostigmine
 - b) Carbochol
 - c) Physostigmine
 - d) Lobeline
- (xxviii) Patients complain of dry or “sandy” eyes when receiving large doses of:
- a) Atropine
 - b) Hexamethonium
 - c) Pilocarpine
 - d) Carbachol
- (xxix) Indicate an antimuscarinic drug, which is effective in the treatment of mushroom poisoning:
- a) Pralidoxime
 - b) Pilocarpine
 - c) Homatropine
 - d) Atropine
- (xxx) Antimuscarinics are used in the treatment of the following disorders EXCEPT:
- a) Motion sickness
 - b) Glaucoma
 - c) Hyperhidrosis
 - d) Asthma
- (xxxi) Which of the following chemical agents are used in the treatment of insomnia?
- a) Benzodiazepines
 - b) Imidazopyridines

(b) Write short note on Medical and Toilet Preparations act.

Enrollment No.....

Diploma in Pharmacy
Second Year Main Examination, Aug-Sep 2020
Drug Store and Business Management [DPY-205]

Time: 3:00 Hrs

Max Marks 80

Note : Attempt any five questions. Each question carries equal marks.

Q.1 (a) Attempt multiple choice questions- (Any eight)

- (xli) Trial balance is a :
- | | |
|------------|--------------|
| a) Ledger | b) Account |
| c) Summary | d) Statement |
- (xlii) Following are describe indirect channel of distribution except :
- | |
|---------------------------------------------------------------|
| a) producer-----wholesaler-----retailer-----consumer |
| b) producer-----agent----wholesaler-----retailer-----consumer |
| c) producer-----retailer-----consumer |
| d) producer-----consumer |
- (xliii) OTC drug are :
- | | |
|----------------------------------|--------------------------|
| a) Ethical drug | b) Prescription drug |
| c) Ethical and Prescription drug | d) Non prescription drug |
- (xliv) Given the following are the media of advertisement except :
- | | |
|--------------|----------------------|
| a) Radio | b) Television |
| c) Newspaper | d) Trade association |
- (xlv) License required to start a new retail drug store is issued by :
- | | |
|-----------------------|----------------------------------------|
| a) Drug Controller | b) Drug Inspector |
| c) Government Analyst | d) Registrar of State Pharmacy Council |
- (xlvi) A chemist shop deals only in drug and so is an example of :
- | | |
|------------------|----------------------|
| a) General Store | b) Single Line Store |
| c) Street Stall | d) None of the above |
- (xlvii) Function of Management
- | | |
|-----------------|-----------------|
| a) Planning | b) Staffing |
| c) Coordinating | d) All of these |
- (xlviii) On the basis of mode of incorporation the companies are following types are except
- | |
|-----------------------|
| a) Statutory Company |
| b) Registered Company |
| c) Private Company |
| d) Chartered Company |
- (xlix) Balance sheet show the financial position for
- | | |
|---------------------------|----------------------|
| a) A given period of time | b) Particular data |
| c) Any of the above | d) None of the above |
- (l) Trading account is prepared to find out the
- | | |
|--------------------------|-----------------------|
| a) Gross Profit and Loss | b) Net Profit or Loss |
| c) Financial Position | d) None of these |

- iv. _____ serves as a link between the medical staff and hospital pharmacist.
- Modern Dispensing Aspects
 - Pharmacy Therapeutic therapeutic
 - Patient Counseling
 - None of these
- v. Given the following are emergency drugs except
- Amphetamine sulphate
 - Aminophylline
 - Amylnitrate
 - Calitonin
- vi. Given the following are secondary source of information except
- Formulary
 - Pharmacopoeia
 - Test books
 - Research Papers
- vii. Given the following are CNS depressant drug except
- Barbiturate
 - Sedative
 - Tranquillizer
 - Methadone
- viii. Haemoglobin % increase in
- Anaemia
 - Polycythemia
 - Leukemia
 - All of these
- ix. ESR stands for
- Estimation Solid rate
 - Erythrocyte Sedimentation Rate
 - Emulsion Sedimentation Rate
 - Electrolyte Sedimentation Rate
- x. Normal WBC count in adult is
- 6,000 to 10,000 cu/mm
 - 8,000 to 10,000 cu/mm
 - 1,000 to 20,000 cu/mm
 - None of these

Q.2 (a) Write a note on drug information services.
 (b) Classify poison, Enlist steps in general treatment of poisoning.

Q.3 (a) Give the detail about the drug distribution system in hospital?
 (b) Explain Drug price control Act in detail?

Q.4 (a) What is Hepatitis? Give its types and symptoms.
 (b) Discuss Pharmacy Therapeutic Committee & Hospital Formulary Systems?

Q.5 (a) Explain Nomenclature & uses of surgical instruments and Hospital Equipments and health accessories?

- (b) Write a note on in-patients services?
- Q.6** (a) Define Hospital Pharmacy and their function ?
(b) Describe in detail medical Termination of pregnancy act1971.
- Q.7** (a) Write application of computer in retail pharmacy establishment.
(b) Explain the term drug abuse and drug habituation. How is the treatment of drug?
- Q.8** (a) Explain Drug distribution system in Hospitals:
i) Out-patient services
ii) In-patient services