

**Bachelor of Pharmacy**  
**Fifth Semester Main Examination, Dec-2020**  
**Medicinal Chemistry-II [BP501T]**

**Time: 3:00 Hrs****Max Marks 75****Note : (i) All parts of the question paper are compulsory.****(ii) All question of each part to be attempt at one place.**

## Part-A

Q.1 Multiple Choice Questions.

[1×20=20]

- (i) Antihistamine drugs are antagonists for which receptor?  
 (a) H1 receptor antagonist  
 (b) H2 receptor antagonist  
 (c) H3 receptor antagonist  
 (d) H4 receptor antagonist
- (ii) Drugs that decrease the pressure of the lower esophageal sphincter are:  
 (a) anticholinergics  
 (b) antibiotics  
 (c) antiarrhythmias  
 (d) antidiuretics
- (iii) Which class of antibody is associated with an allergic reaction-  
 (a) IgE  
 (b) IgA  
 (c) IgM  
 (d) IgG
- (iv) Which of the following alkylating agents is employed for carbon & carbon alkylations  
 (a) Ethylene  
 (b) Propylene  
 (c) Butylenes  
 (d) All of the mentioned
- (v) Cancer can be treated by -  
 (a) Surgery  
 (b) Radiation, Immuno, Chemo therapy  
 (c) 70%  
 (d) 100%
- (vi) Busulphan is -  
 (a) Cytotoxic Drug  
 (b) Bifunctional alkylating agent  
 (c) Approximate or similar to chlorambucil  
 (d) All of the above
- (vii) What is obtained from petroleum-cracking operations?  
 (a) Benzene  
 (b) Aniline  
 (c) Ethylene  
 (d) All of the mentioned
- (viii) Which of the following enzyme is essential for the conversion of histidine to histamine?  
 (a) Histidine amylase  
 (b) Histidine hydrolase  
 (c) Histidine decarboxylase  
 (d) Histidine phosphorylase
- (ix) Alcohols are used in the manufacture of which type of ethers?  
 (a) Isopropyl ether  
 (b) Ethyl ether  
 (c) Cellosolve  
 (d) All of the mentioned
- (x) Which of the following histamine receptor increase permeability during inflammation reaction?

- (a) H1 receptor (b) H2 receptor  
(c) H3 receptor (d) H4 receptor
- (xi) Diethylaniline is prepared from aniline and ethyl alcohol in presence of which acid?  
(a) Nitric acid (b) Hydrochloric acid  
(c) Sulphuric acid (d) All of the mentioned
- (xii) Which of the following histamine receptor increases the release of gastric acid?  
(a) H1 receptor (b) H2 receptor  
(c) H3 receptor (d) H4 receptor
- (xiii) Which type of alkyl ester is used for alkylating amines?  
(a) Lower (b) Moderate  
(c) Higher (d) None of the mentioned
- (xiv) Which of the following is the first antihistamine?  
(a) Piperoxan  
(b) Ethylenediamine  
(c) Alkylamines  
(d) Tricyclics
- (xv) Tick the anticancer drug belonging to inorganic metal complexes:-  
(a) Styrene oxides (b) Trialkyl phosphate  
(c) Alkylmagnesium halide (d) All of the mentioned
- (xvi) The main reason to prescribe a proton pump inhibitor (PPI) is for the treatment of  
(a) low back pain (b) nausea and vomiting  
(c) diarrhea (d) indeterminate chest pain
- (xvii) Which of the following drugs has the smallest volume of distribution?  
(a) Chloroquine (b) Verapamil  
(c) Imipramine (d) Warfarin
- (xviii) A statistically significant variable with the use of PPI and H2 receptor blockers was:  
(a) Cardiovascular drugs  
(b) Number of oral products taken daily  
(c) Vitamin/mineral/supplement use  
(d) Anticholinergic burden
- (xix) Which of the following is not a major risk factor for atherosclerosis?  
(a) Family history (b) Cigarette smoking  
(c) Obesity (d) Male gender
- (xx) Long-term use of PPIs can delay the diagnosis of:  
(a) Hepatitis (b) Anemia  
(c) Gastrinomas (d) Dementia

#### Part-B

Short answer questions

[7×5 = 35]

Note : Attempt any Seven questions. Each question carries 5 marks.

Write note on -

- Q.1 Diuretics
- Q.2 Vasodilators
- Q.3 H1 Antagonist
- Q.4 H2 Antagonist
- Q.5 Antibiotics
- Q.6 Antihypertensive agents
- Q.7 Anticoagulants
- Q.8 Anti-arrhythmic Drugs

Part-C

Long answer questions.

[10×2 = 20]

Note : Attempt any Two questions. Each question carries 10 marks.

- Q.1 Describe antihistaminic agents with its classification.
- Q.2 Describe gastric proton pump inhibitor.
- Q.3 Explain antiarrhythmic agents with classification.

Enrollment No.....

**Bachelor of Pharmacy**  
**Fifth Semester Main Examination, Dec-2020**  
**Industrial Pharmacy-I [BP502T]**

**Time: 3:00 Hrs**

**Max Marks 75**

**Note : (i) All parts of the question paper are compulsory.**

**(ii) All question of each part to be attempt at one place.**

Part-A

**Q.1 Multiple Choice Questions.**

**[1x20 = 20 Marks]**

- (i) Other than tablet hardness, which method is used to measure the tablet strength-
  - (a) Thickness
  - (b) Weight variation
  - (c) Friability
  - (d) Organoleptic properties
- (ii) Use of talcum powder in tablet formulation as-
  - (a) Lubricant
  - (b) Disintegrating agent
  - (c) Binder
  - (d) Adhesive
- (iii) How many tablets require for content uniformity test-
  - (a) 10
  - (b) 20
  - (c) 30
  - (d) 40
- (iv) The dissolution flask is cylindrical with a hemispherical bottom. It is maintain at \_\_\_\_\_ by the constant temperature both-
  - (a) 37±0.5°C
  - (b) 37±1.0 °C
  - (c) 37±1.5 °C
  - (d) 37± 2.0 °C

- (v) Excessive moisture may be responsible for-
- |             |                |
|-------------|----------------|
| (a) Capping | (b) Lamination |
| (c) Picking | (d) Sticking   |
- (vi) Which of following is commonly used for direct compression-
- |                               |          |
|-------------------------------|----------|
| (a) Methyl cellulose          | (b) HPMC |
| (c) Hydroxyl propyl cellulose | (d) All  |
- (vii) The mechanical strength of the tablet can be described as –
- |                                   |  |
|-----------------------------------|--|
| (a) Hardness and bending strength |  |
| (b) Fracture resistance           |  |
| (c) Crushing strength             |  |
| (d) All                           |  |
- (viii) Drug absorption is better with-
- |                     |                         |
|---------------------|-------------------------|
| (a) Insoluble drugs | (b) Lipid soluble drugs |
| (c) Powder          | (d) Ionized drugs       |
- (ix) Capsule is made up of -
- |               |             |
|---------------|-------------|
| (a) Vegetable | (b) Gelatin |
| (c) Dioscorea | (d) None    |
- (x) Soft gelatine capsule used for-
- |             |              |
|-------------|--------------|
| (a) Powders | (b) Granules |
| (c) Liquids | (d) All      |
- (xi) A high efficiency air filter
- |                  |                |
|------------------|----------------|
| (a) HEPA filter  | (b) Diluent    |
| (c) Final filter | (d) Web filter |
- (xii) Movement of particles in a solution through permeable membranes
- |               |               |
|---------------|---------------|
| (a) Filter    | (b) Dialysis  |
| (c) Flow rate | (d) Anhydrous |
- (xiii) Methods that maintain sterility products
- |                       |                   |
|-----------------------|-------------------|
| (a) Aseptic technique | (b) Bleaching     |
| (c) A clean person    | (d) None of these |
- (xiv) The resulting solution when a drug is added to a parenteral solution
- |               |              |
|---------------|--------------|
| (a) Admixture | (b) Solution |
| (c) Additive  | (d) Juice    |
- (xv) Gelatin is a
- |                  |               |
|------------------|---------------|
| (a) Fat          | (b) Alkaloids |
| (c) Carbohydrate | (d) Protein   |
- (xvi) Which is the type of Borosilicate Glass
- |              |             |
|--------------|-------------|
| (a) Type I   | (b) Type II |
| (c) Type III | (d) Type IV |
- (xvii) Which of the following are widely used and excellent preservatives
- |               |                                   |
|---------------|-----------------------------------|
| (a) Mercurial | (b) Quaternary ammonium compounds |
| (c) Both      | (d) Acidic                        |

- (xiii) Titanium dioxide commonly used in  
(a) Vanishing cream (b) Sunscreen Cream  
(c) Ophthalmic Cream (d) Aqueous calamine cream.

- (xix) Aerosol is used for the formation of -  
(a) Smoke (b) Solid form  
(c) Liquid form (d) Emulsion

- (xx) Which one of the following is not a route of administration?  
(a) Intravenous (IV) (b) Oral  
(c) Topical (d) Dissolution

**Part-B**

**Long answer questions**

**[10x2 = 20 Marks]**

**Note : Attempt any two questions. Each question carries 10 marks.**

- Q.1 Explain the excipient and formulation of tablet.  
Q.2 Explain in details about pharmaceutical aerosols.  
Q.3 Write the formulation and manufacturing consideration of syrup, elixir, suspensions and emulsion

**Part-C**

**Short answer questions.**

**[5x7 = 35 Marks]**

**Note : Attempt seven questions. Each question carries 5 marks.**

- Q.1 Define pre-formulation studies and write its objectives  
Q.2 Explain the material used in pharmaceutical preparation.  
Q.3 Write the evaluation parameter of tablet.  
Q.4 Define cold cream and vanishing cream and write their preparation formula as Per IP.  
Q.5 Write the quality control test of parenteral product.  
Q.6 Write difference between hard and soft gelatin capsules.  
Q.7 Define tablet. Write its advantage and disadvantage.  
Q.8 Write the legal and official requirements for containers.

Enrollment No.....

**Bachelor of Pharmacy**  
**Fifth Semester Main Examination, Dec-2020**  
**Pharmacology-II [BP503T]**

**Time: 3:00 Hrs**

**Max Marks 75**

**Note : (i) All parts of the question paper are compulsory.**

**(ii) All question of each part to be attempt at one place.**

**Part-A**

**Q.1 Multiple Choice Questions.**

**[1x20 = 20 Marks]**

- (i) Dopamine is
  - (a) Both alpha and beta agonist
  - (b) Beta agonist
  - (c) Alfa agonist
  - (d) Beta antagonist
  
- (ii) Digoxin is contraindicated in
  - (a) Arterial fibrillation
  - (b) Obstructive hypertrophic cardiomyopathy
  - (c) CHF
  - (d) Atrial flutter
  
- (iii) Drug of Choice in Ventricular tachycardia
  - (a) Pethidine
  - (b) Digoxin
  - (c) Propranolol
  - (d) Lignocaine
  
- (iv) Which Drug has a high first pass effect ?
  - (a) Amiodarone
  - (b) Phenytoin
  - (c) Verapamil
  - (d) Disopyramide
  
- (v) Quinidine is contraindicated in
  - (a) Atrial Fibrillation
  - (b) Atrial Flutter
  - (c) Digitalis toxicity
  - (d) Supraventricular tachycardia
  
- (vi) Drug of choice for digitalis induced arrhythmia is-
  - (a) Quinidine
  - (b) Procainamide
  - (c) Encainide
  - (d) Phenytoin
  
- (vii) Ant-arrhythmic drugs causing "torsades de pointes" are all except
  - (a) Quinidine
  - (b) Disopyramide
  - (c) Procainamide
  - (d) Lignocaine
  
- (viii) Calcium Channel blocker with the maximum peripheral effect is
  - (a) Verapamil
  - (b) Nifedipine
  - (c) Diltiazem
  - (d) Gallapamil
  
- (ix) Calcium channel blocker with maximum effect on conduction in heart is
  - (a) Verapamil
  - (b) Nifedipine
  - (c) Diltiazem
  - (d) Nimodipine
  
- (x) Following are the side effect of Nimodipine , EXCEPT
  - (a) Hypotension
  - (b) Flushing
  - (c) Headache
  - (d) Severe constipation
  
- (xi) Which of the following relieves angina-pectoris by decreasing myocardial work, but may precipitate CHF
  - (a) Phentolamine
  - (b) Phenoxybenzamine
  - (c) Propranolol
  - (e) Atropine

- (xii) Verapamil increases toxicity of all, EXCEPT  
 (a) Digoxin (b) Propranolol  
 (c) Benzodiazepines (d) NSAID'S
- (xiii) The longest acting nitrate is  
 (a) Glyceryl trinitrate (b) Amyl nitrate  
 (c) Isosorbide mononitrate (d) Isosorbide dinitrate
- (xiv) The drug of choice in hypertrophic cardiomyopathy is  
 (a) Propranolol (b) Verapamil.  
 (c) Digoxin (d) Amiodarone
- (xv) All of the following are example of Calcium channel Blockers, EXCEPT  
 (a) Nifedipine (b) Diltiazem  
 (c) Pirenzepine (d) Verapamil
- (xvi) The commonest side effect of oral nitrates are all EXEPT  
 (a) Bradycardia (b) Headache  
 (c) Hypotension (d) Oral Ulceration
- (xvii) Which is true about enalapril as compared to captopril  
 (a) Lesser potent  
 (b) Quicker onset  
 (c) Longer acting  
 (d) More adverse effect
- (xviii) Chemically paracetamol is  
 (a) N-acetyl-p-aminophenol (b) Chloroquine  
 (c) Acetyl salicylic acid (d) Acetophen
- (xix) The following drugs are used in acute gout, EXCEPT  
 (a) Allopurinol (b) Naproxen  
 (c) Corticosteroids (d) Colchicine
- (x) All of the following are thiazide diuretics, EXCEPT  
 (a) Bumetanide (b) Benzthiazide  
 (c) Indapamide (d) Metolazone

### Part-B

#### Long answer questions

[10x2 = 20 Marks]

Note : Attempt any two questions. Each question carries 10 marks.

- Q.1 Explain in detail about NSAID'S with classification.
- Q.2 Write in detail about Anti-gout drug with classification.
- Q.3 Write in detail about Estrogens, progesterone and contraceptives.

### Part-C

#### Short answer questions.

[7x5 = 35 Marks]

Note : Attempt seven questions. Each question carries 5 marks.

- Q.1 Write classification of Anti-hypertensive drugs.
- Q.2 Write short note on Thiazide Diuretics.

- Q.3 Write short note on Aspirin.
- Q.4 Explain ACE Inhibitors with one example.
- Q.5 Write short note on Verapamil, its mechanism of action, uses and side effects.
- Q.6 Write a note on Angina pectoris.
- Q.7 Write in detail about Acetazolamide drug.
- Q.8 Give a short note of drugs used in CHF.

Enrollment No.....

**Bachelor of Pharmacy**  
**Fifth Semester Main Examination, Dec-2020**  
**Pharmacognosy & Phytochemistry-II [BP504T]**

**Time: 3:00 Hrs**

**Max Marks 75**

**Note : (i) All parts of the question paper are compulsory.**

**(ii) All question of each part to be attempt at one place.**

Part-A

Q.1 Multiple choice questions.

[1x20 = 20 Marks]

- (i) Which of the following cannot be used as an adsorbent in Column adsorption chromatography?  
 (a) Magnesium oxide (b) Silica gel  
 (c) Activated alumina (d) Potassium permanganate
- (ii) Which of the following types of chromatography involves the process, where the mobile phase moves through the stationary phase by the influence of gravity or capillary action?  
 (a) Column Chromatography  
 (b) High Pressure Liquid Chromatography  
 (c) Gas Chromatography  
 (d) Planar Chromatography
- (iii) In which of the following type of paper, chromatography does the mobile phase move horizontally over a circular sheet of paper?  
 (a) Ascending paper chromatography  
 (b) Descending paper chromatography  
 (c) Radial paper chromatography  
 (d) Ascending – descending chromatography
- (iv) Liquid chromatography can be performed in which of the following ways?  
 (a) Only in columns  
 (b) Only on plane surfaces  
 (c) Either in columns or on plane surfaces  
 (d) Neither in columns nor on plane surfaces
- (v) What is the botanical name of senna?  
 (a) Cassia senna L. (b) Rudbeckiahirta  
 (c) Physalisfranchetti (d) Basellarubra
- (vi) Senna is used to treat



- (a) Diabetes (b) Cancer  
(c) Constipation (d) All of the above
- (vii) General tests for the identification of sterol and triterpenoid glycosides in a drug sample  
(a) Borntrager's test (b) Antimony trichloride test  
(c) Tetranitro methane test (d) Both b and c
- (viii) Salkowaski test used for the identification of which glycoside moiety in a drug sample ?  
(a) Sterol glycoside (b) Anthraquinone glycoside  
(c) Cynophoric glycoside (d) Flavonoid glycoside
- (ix) Legal test used for the identification of which glycoside:  
(a) Anthraquinone glycoside (b) Coumarine glycoside  
(c) Cardiac glycoside (d) All
- (x) Modified Borntrager's test used in the identification of which glycoside?  
(a) Cardiac glycoside (b) Flavonoid glycoside  
(c) Saponin glycoside (d) Anthraquinone glycoside
- (xi) Sodium picrate test used in the identification of which glycoside?  
(a) Cynophoric glycoside (b) Cynogenic glycoside  
(c) Saponin glycoside (d) Anthraquinone glycoside
- (xii) In salkowaski test which colour ring appear at the junction of two liquid mixed?  
(a) Yellow (b) Red  
(c) Pink (d) Both a and b
- (xiii) What is the botanical name of coffee?  
(a) Pyrus malus (b) Ribesnigrum  
(c) Solanum melongena (d) Coffea Arabica Linn
- (xiv) What is the biological source of coffee?  
(a) Root (b) Seed  
(c) Leaves (d) Bark
- (xv) Coffee belongs to which family?  
(a) Loganiaceae (b) Rubiaceae  
(c) Solaneacea (d) Asteraceae
- (xvi) The interaction of Tropine and tropic acid produces?  
(a) Atropin (b) Carbachol  
(c) Procyclidine (d) Doxacurium
- (xvii) The type of ring system found in Atropin?  
(a) Benzene (b) Napthalene  
(c) Imidazole (d) None of the above
- (xviii) Curcumin belongs to which family?  
(a) Loganiaceae (b) Rubiaceae  
(c) Solaneacea (d) Zingiberaceae

- (xix) Forskolin belongs to which family?  
(a) Lamiaceae (b) Rubiaceae  
(c) Solanaceae (d) Zingiberaceae
- (x) Reserpine belongs to which family?  
(a) Lamiaceae (b) Rubiaceae  
(c) Apocynaceae (d) Solanaceae

Part-B

Long answer questions

[10x2 = 20 Marks]

Note : Attempt any two questions. Each question carries 10 marks.

- Q.1 Describe source, cultivation, collection, macroscopy, microscopy, constituents, uses, adulterants and substitute of Fennel.
- Q.2 Write source, cultivation, collection, macroscopy and microscopy, constituents, uses, adulterants and substitute of Digitalis.
- Q.3 Explain different metabolic pathways in higher plant and what are secondary metabolites.

Part-C

Short answer questions.

[7x5 = 35 Marks]

Note : Attempt any seven questions. Each question carries 5 marks.

- Q.1 Collection methods for bark crude drugs.
- Q.2 Collection methods of Opium.
- Q.3 Macroscopy of Vinca.
- Q.4 Microscopy study of Nuxvomica.
- Q.5 Microscopical evaluation.
- Q.6 Preparation of Silk.
- Q.7 Glycoalkaloids type of crude drug.
- Q.8 Requirements for cultivating Cinnamon.

Enrollment No.....

**Bachelor of Pharmacy**  
**Fifth Semester Main Examination, Dec-2020**  
**Pharmaceutical Jurisprudence [BP505T]**

**Time: 3:00 Hrs**

**Max Marks 75**

**Note : (i) All parts of the question paper are compulsory.**

**(ii) All question of each part to be attempt at one place.**

**Part-A**

Q.1 Multiple Choice Questions.

[1x20 = 20 Marks]

- (i) License issue for bonded and non-bonded laboratory by  
(a) Central Government  
(b) State Government  
(c) Excise commissioner  
(d) Director of health services

- (ii) NDPS consultative committee consist of maximum of..... members.  
 (a) 15 (b) 10  
 (c) 20 (d) 25
- (iii) The president of PCI is  
 (a) Elected by its member  
 (b) Nominated by health secretary, Government of India  
 (c) Elected by registered pharmacist  
 (d) None of above
- (iv) Who was the first chairman of Pharmaceutical Enquiry Committee  
 (a) B. Mukharjee (b) S. S. Bhatiya  
 (c) Joseph Bhore (d) R. D. Dalal
- (v) Punishment for contravention in relation to Ganja  
 (a) 10-20 years imprisonment and 1-2 lakh ruppes fine  
 (b) 5 years imprisonment and 50 thousand rupees fine.  
 (c) 2 years imprisonment and 50 thousand rupees fine  
 (d) None of above.
- (vi) Medicinal and Toilet preparation act 1955 is effectively implemented throughout India from  
 (a) 2nd May 1956  
 (b) 5th June 1957  
 (c) 2nd April 1952  
 (d) 2nd April 1957
- (vii) The pharmacy bill was introduced by government of India in  
 (a) 1940 (b) 1927  
 (c) 1947 (d) 1847
- (viii) Penalties for Offences like Manufacture of any spurious drug  
 (a) 1-3 year imprisonment and Rs. 5000 fine  
 (b) 1 year imprisonment & Rs.2000 Fine  
 (c) Imprisonment up to 3 months & Rs.500 Fine  
 (d) Imprisonment up to 6 months & Rs. 1000 Fine on subsequent conviction
- (ix) Change in colour of the hair and growth of new hair type of disease cover in which schedule as per D & C act 1940?  
 (a) Schedule J (b) Schedule K  
 (c) Schedule E1 (d) Schedule Y
- (x) Central register maintained by  
 (a) Central council (b) M. C. I.  
 (c) AICTE (d) State council
- (xi) In elected member of PCI six member elected by  
 (a) Central council (b) U.G.C.  
 (c) AICTE (d) All of above
- (xii) Minimum training required to be pharmacist  
 (a) 100 hours (b) 500 hours  
 (c) 300 hours (d) 800 hours

- (xiii) Pharmacist in relation trade  
 (a) Should charge fair price  
 (b) Should not attract customer by gift  
 (c) Always purchase medicament from reputed sources  
 (d) All of above
- (xiv) Pharmacist in relation to his profession  
 (a) Pharmacist-vigilance  
 (b) Law-abiding citizen  
 (c) Decoram and propriety  
 (d) All of above
- (xv) The magic remedies act at was passed in the year  
 (a) 1954 (b) 1944  
 (c) 1920 (d) 1935
- (xvi) Cure for cancer in an example of the following advertisements  
 (a) Prohibited (b) Exempted  
 (c) Bonafide (d) Permitted
- (xvii) Penalty for use of government analyst report for advertisement is  
 (a) 500 (b) 5000  
 (c) 1000 (d) None
- (xviii) MTP act was passed in which year  
 (a) 1971 (b) 1985  
 (c) 1975 (d) 1945
- (xix) If any person doing MTP is not RMP can punished with imprisonment of  
 (a) 2-7 year (b) 1 year  
 (c) 5-10 year (d) None of above
- (xx) The application to import drug as part of bonafide luggage is made to the licensing authority in.....  
 (a) Form 12A (b) Form 12  
 (c) Form 12B (d) Form 26

#### Part-B

Long answer questions

[2x10 = 20 Marks]

Note: Attempt any two questions. Each question carries 10 marks.

- Q. 1 Write detail about Legal Code of Pharmaceutical ethics.
- Q. 2 Detail about National list of Essential Medicines (NLEM).
- Q. 3 Detail about Labelling and Packing of Drug and schedule.

#### Part-C

Short answer questions.

[5x7 = 35 Marks]

Note: Attempt seven questions. Each question carries 5 marks.

- Q. 1 Write an exhaustive note on Pharmacy Act 1948.
- Q. 2 Describe schedule M in detail.
- Q. 3 Give the objectives and definitions of Institutional Animal Ethics Committee.
- Q. 4 Give in detail medical termination of pregnancy act.
- Q. 5 Write in detail about import of the drug and classes of the drug prohibited from import.
- Q. 6 Give CPCSEA guidelines for breeding and stocking of animals.
- Q. 7 Explain the constitution and functions of narcotic and psychotropic consultative committee.
- Q. 8 Write short notes on any three.
- (a) IPR
  - (b) Patent
  - (c) Schedule G
  - (d) DPCO