

Registration No :

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Total Number of Pages : 02

B. Pharm  
BP501T

5<sup>th</sup> Semester Regular/Back Examination: 2022-23  
Medicinal Chemistry- II  
B.Pharma  
Time : 3 Hour  
Max Marks : 75  
Q.Code : L170

Answer Question No.1 (Part-1) which is compulsory, any seven from Part-II and any two from Part-III.

The figures in the right hand margin indicate marks.

Part-I

Q1 Answer the following questions : (2 x 10)

- Write the structure and chemical name of a local anesthetic that lacks a terminal diethyl amino group.
- Outline the synthesis of Warfarin.
- Give the generic name and structure of an antiulcer agent having imidazole ring.
- Name the enzyme on which Voglibose acts. Write the major use of Voglibose.
- Write the mechanism of action of Nesiritide.
- Name two plant products with their sources used in cancer treatment.
- Why is carbonic anhydrase inhibitor a diuretic?
- What are the therapeutic uses of L-Thyroxine?
- Write the name of four DNA alkylating agents used as antineoplastic agents.
- Write the drug class and major indication of Sildenafil.

Part-II

Q2 Focused-Short Answer Type Questions- (Answer Any Seven) (5 x 7)

- What are calcium channel blockers? Explain the mechanism of action and uses of Nifedipine.
- Discuss briefly the SAR of H<sub>1</sub> receptor blockers.
- What are bile acid sequestrants? Give the mechanism of action and uses of Cholestamine.
- Write a brief note on gastric proton pump inhibitors.
- Write the synthesis, mechanism of action of any one loop diuretic.
- Write the synthesis of Nitroglycerin and Isosorbide dinitrate.
- Why steroids are called corticosteroids? Write the mode of action and uses of one synthetic glucocorticoid.
- Briefly describe the SAR of local anesthetics.
- Write a short note on ACE inhibitors used as antihypertensive agents.

**Part-III**

**Long Answer Type Questions (Answer Any Two)**

- Q3** Define and classify anti-arrhythmic agents with examples. Write the structure, mode of action, synthesis and uses of any one class I antiarrhythmic drug. **(10)**
- Q4** What are antineoplastic agents? Classify them with examples? Discuss the general mechanism of action of antimetabolites. Outline the synthesis and uses of Mercaptopurine. **(10)**
- Q5** Discuss the stereochemistry of steroids. What are androgens? Give the mechanism of action and uses of Diethyl stilbestrol. **(10)**
- Q6** Define and classify antidiabetic agents with examples. Write the structure, mechanism of action, synthesis and uses of one oral hypoglycemic agent. **(10)**

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Course B.Pharm  
Sub\_Code BP502T

5<sup>th</sup> Semester Regular/Back Examination: 2022-23

SUBJECT Industrial Pharmacy I

BRANCH(S): B.Pharma

Time : 3 Hour

Max Marks : 75

Q.Code : L232

Answer Question No.1 (Part-1) which is compulsory, any eight from Part-II and any two from Part-III.

The figures in the right hand margin indicate marks.

**Part-I**

**Q1 Answer the following questions : (2 x 10)**

- a) Briefly enumerate the flame projection in aerosols.
- b) Define polymorphism with example.
- c) Write the significance of rubber closure.
- d) How can you distinguish between capping and lamination?
- e) Mention the importance of partition coefficient.
- f) What do you mean by 'Class 100 Clean room'?
- g) Name any four types of metals used as packaging material.
- h) Differentiate between syrup and elixir.
- i) Define disintegrating agents with example.
- j) Discuss HEPA filter in terms of its efficiency and capacity of removal of impurities.

**Part-II**

**Q2 Focused-Short Answer Type Questions- (Answer Any Seven) (5 x 7)**

- a) Types of tablet coating
- b) Vanishing cream
- c) Hair dyes
- d) Manufacturing methods of hard gelatin capsule
- e) Evaluation of ophthalmic preparations
- f) BCS classification of drugs & its significant in preformulation.
- g) Formulation requirements of pellets.
- h) Shampoo
- i) Factors influencing choice of containers.

### Part-III

#### Long Answer Type Questions (Answer Any Two)

- Q3** What do you mean by ophthalmic drug delivery system? Describe the various types of ophthalmic dosage form. Briefly describe the application method of eye drop. **(10)**
- Q4** Define preformulation; write its considerations in the development of solid dosage forms and its impact on stability of dosage forms. **(10)**
- Q5** Define parenteral formulation. Describe the various routes of administration of parenteral formulations. How they can be evaluated? **(10)**
- Q6** Describe briefly about the large scale manufacturing of Aerosol. Give detail idea about the various components of aerosol. **(10)**

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B. Pharm  
BP503T

5<sup>th</sup> Semester Regular/Back Examination: 2022-23

SUBJECT: PHARMACOLOGY II

BRANCH(S): B.Pharm

Time : 3 Hour

Max Marks : 75

Q.Code : L296

Answer Question No.1 (Part-1) which is compulsory, any eight from Part-II and any two from Part-III.

The figures in the right hand margin indicate marks.

**Part-I**

**Q1 Answer the following questions : (2 x 10)**

- Define haematinics with examples of oral iron therapy.
- What is the response of histamine when injected intradermally.
- Write the mechanism of action of carbimazoles.
- Name any two hypolipidaemic drugs with their uses.
- Which serotonin antagonists act as antiemetics.
- Write the role of calcitonin in osteoporosis.
- Name any two antirheumatic drugs with their uses.
- Write about mechanism of spironolactone.
- Name any two plasma volume expanders with their uses.
- Name any two vasodilators with their uses.

**Part-II**

**Q2 Focused-Short Answer Type Questions- (Answer Any Seven) (5 x 7)**

- Write a brief note on oral anticoagulants with examples.
- Enumerate briefly about bradykinins.
- Briefly explain about the antidiuretic properties of thiazides.
- Write a note on calcium channel blockers.
- Briefly describe about the pharmacological actions of glucocorticosteroids with examples.
- Write about the different general methods of bioassay.
- Briefly explain about the mechanism of action, adverse effects & uses quinidine.
- Write a note on anabolic steroids with examples and uses.
- Write a note on glyceryl trinitrate.

**Part-III**

**Long Answer Type Questions (Answer Any Two)**

- Q3** What are cardiac glycosides? Describe the M.O.A., adverse effects and uses of digoxin (10)
- Q4** Classify NSAIDS. Explain about the various pharmacological actions of Aspirin. (10)
- Q5** Classify Diuretics Write the mechanism of action, adverse effects and therapeutic uses of furosemide. (10)
- Q6** Classify oral hypoglycaemic agents. Write about the mechanism of action, adverse effects and drug interactions of sulfonyl ureas. (10)

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Course: B.Pharm  
Sub Code: BP504T

5<sup>th</sup> Semester Regular/Back Examination: 2022-23  
SUBJECT: Pharmacognosy and Phytochemistry-II  
BRANCH(S): B.Pharma  
Time : 3 Hours  
Max Marks : 75  
Q.Code : L355

Answer Question No.1 (Part-1) which is compulsory, any seven from Part-II and any two from Part-III.

The figures in the right hand margin indicate marks.

**Part-I**

**Q1 Answer the following questions : (2 x 10)**

- Define secondary metabolites with examples.
- Write the biological source and uses of Asafoetida.
- Define alkaloids.
- Mention the biological source and chemical constituents of Rauwolfia.
- What are Flavonoids?
- Define electrophoresis and give its applications.
- Write the biological source and uses of Opium.
- What are resins?
- Difference between Cardenolides and Bufadienolides.
- Mention the biological source of Digitalis and Cinnamon.

**Part-II**

**Q2 Focused-Short Answer Type Questions- (Answer Any Seven) (5 x 7)**

- Mention the biological source, chemical constituents and therapeutic uses of Mentha.
- Discuss the industrial production and utilization of Sennoside.
- Write the biological source and isolation of Curcumin.
- Explain the isolation and identification of Artemisin.
- Write down the isolation and analysis of Quinine.
- What are the applications of spectroscopy in the identification of phytoconstituents?
- Write the estimation and utilization of Podophyllotoxin.
- Mention the biological source, chemical constituents and therapeutic uses of Aloe.
- Write down the isolation and analysis of Caffeine.

**Part-III**

**Long Answer Type Questions (Answer Any Two)**

- Q3** Explain Shikimic acid pathway and its significance. (10)
- Q4** Give a detail note on various extraction methods of phytoconstituents. (10)
- Q5** Write in detail about industrial production, estimation and utilization of Taxol. (10)
- Q6** Discuss in detail about tracer techniques used for the investigation of biogenetic pathways. (10)



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**B.PHARM**  
**BP505T**

Total Number of Pages:01

**5<sup>th</sup> Semester Regular/Back Examination: 2022-23**

**PHARMACEUTICAL JURISPRUDENCE**

**Branch: B.Pharma**

**Max Marks: 75**

**Time: 3 Hours**

**Q.Code: L443**

**Answer Question No.1(Part-A) which are compulsory, any seven from Part-II and any two from Part-III.**

**The figures in the righthand margin indicate marks.**

**Part-I**

**Q1 Objective Answer Type Questions (Answer All)**

**(02x10)**

- Define drugs and cosmetics as per Drugs and Cosmetics Act.
- Define misbranded and adulterated drugs.
- Write the types of retail sale of drugs. Give two examples of schedule J.
- What is Drug Consultative Committee (DCC)?
- Define rectified spirit as per M&TP Act.
- Give the significance of Drugs Enquiry Committee (DEC).
- Mention the objectives of Pharmaceutical Legislations.
- Differentiate between ethics and laws.
- Mention the responsibilities of Right to Information Act.
- Define patents. Mention types of patents.

**Part-II**

**Q2 Focused-Short Answer type Questions- (Answer Any Seven)**

**(05x07)**

- What are the classes of drugs prohibited to import into India?
- Define and write the qualifications and duties of government analyst.
- Explain about ware-housing of alcoholic preparations as per M&TP Act.
- Describe the manufacture, sale and export of opium under NDPS Act.
- Define magic remedies. Write the classes of advertisements prohibited under D&MR Act.
- Give the constitution and functions of Institutional Animal Ethical Committee (IAEC).
- Describe the role of pharmacist in relation to his profession.
- Write the salient features of Drugs and Magic Remedies act and its rule.
- Write down the general requirements for labelling and packing of drugs as per Drug & Cosmetic Act.

**Part-III**

**Long Answer type Questions- (Answer Any Two)**

**(10x2)**

- Write the qualifications, duties, and responsibilities of the drug inspector. Explain the procedure for taking samples by the drug inspector.
- Explain the Registration of pharmacists detailing about first register, qualifications for entry into the first register, subsequent register, and removal of name from the register as per the Pharmacy Act.
- Define Patent. List the inventions that are not patentable within the meaning of the Patent Act. Give offense and penalties under this Act.
- What are the objectives of NDPS Act 1985? Give a detailed account on cultivation, production and sale of poppy straw.