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**B.PHARM**

**PH. 6.1**

**6<sup>th</sup> Semester Regular / Back Examination 2016-17**

**PHARMACEUTICS-V**

**(Pharmaceutical Technology- II)**

**BRANCH: Pharmacy**

**Time: 3 Hours**

**Max Marks: 70**

**Q.CODE: Z118**

**Answer Question No.1 which is compulsory and any five from rest.**

**The Figures In the right hand margin indicate marks.**

**1. Answer the following questions (2×10)**

- a) Give a flow diagram for manufacture of parenteral products.
- b) Give two examples of water soluble and water insoluble polymers used as coating material's for microencapsulation
- c) What is clean room 100 and 10,000?
- d) What are different parts of aerosol package?
- e) What are criteria for selection of nonaqueous vehicle for parenteral preparation? Give two examples of it.
- f) Differentiate between Blister packaging and strip packaging.
- g) Ophthalmic product should be \_\_\_\_\_ with lachrymal secretions to avoid \_\_\_\_\_ and \_\_\_\_\_
- h) Write any 4 ways of phase separation occurs in coacervation phase separation method.
- i) Mention the core materials used for microencapsulation and write the application of microencapsulation.
- j) Name the types of glass used for parenteral preparation.

2. Discuss in detail about vehicles and adjuvant used in formulation of parenteral. (10)
3. Define microencapsulation. Discuss the air suspension method used for preparation of microencapsulation with neat labeled diagram (10)
4. a) Classify the propellants with suitable examples and write the methods used in manufacturing aerosols. (5)
- b) Write notes on evaluation of aerosols. (5)
5. What is pharmaceutical packaging? Briefly discuss the factors influencing choice of containers. Elaborate on stability aspects of packaging. (10)
6. a) Write notes on core material and coating material used for microencapsulation. (5)
- b) Define aseptic condition. Discuss briefly designing of an aseptic area. (5)
7. Describe briefly on the following
- a) Contact lenses. (5)
- b) Requirements of Ophthalmic products. (5)
8. a) Briefly explain manufacturing of parenteral preparation. (5)
- b) Define pyrogen. Give it significant. Write notes on pyrogen test. (5)

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**B.Pharm**  
**PH.6.3**

**6<sup>th</sup> Semester Regular / Back Examination 2016-17**

**PHARMACEUTICAL CHEMISTRY-VI**

**(MEDICINAL CHEMISTRY-II)**

**BRANCH: Pharmacy**

**Time: 3 Hours**

**Max Marks: 70**

**Q.CODE: Z169**

**Answer Question No.1 which is compulsory and any five from the rest.**

**The figures in the right hand margin indicate marks.**

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

- a) Give the name and structure of any one mercurial diuretics.
- b) Differentiate between neuroleptics and analeptics.
- c) What do you mean by hypnotics and sedatives .Give suitable examples from each.
- d) Define steroids and give any two examples of steroidal agents.
- e) Give the name and structure of pregn-4-ene-3,20 dione.
- f) Give the name and structure of any one non-steroidal female sex hormone.
- g) How opioids differ from non-opioids.
- h) Write synthesis and uses of chlorothiazide.
- i) Write synthesis and uses of clofibrate.
- j) Write synthesis and uses of Phenelzine

**Q2 a) Give the synthesis and uses of testosterone from cholesterol. (5)**

**b) Write short notes on progestational agents. (5)**

**Q3 a) Write structural activity relationship of local anesthetics. (Both ester and amide type). (5)**

**b) Write synthesis and uses of benzocaine and phenobarbitone. (5)**

**Q4 What are CNS stimulants, classify them with suitable example .Write their structural activity relationship , synthesis and mode of action of any one C.N.S. stimulating agent. (10)**

**Q5 a) .Write synthesis,mode of action and uses of acetazolamide and procainamide. (5)**

**b) Give the structure, nomenclature and synthesis of amantidine,amphetamine. (5)**

**Q6 a)** Give the synthesis and uses of primidone and chlorpromazine. **(5)**

**b)** Give the synthesis and mode of action of carbamazepine and Isosorbide dinitrate. **(5)**

**Q7 a)** Classify antidepressants and write the synthesis and uses of diazepam. **(5)**

**b)** .Classify anxiolytics and give synthesis and therapeutic uses of imipramine. **(5)**

**Q8 Write (any two) synthesis and therapeutic uses of following drugs (5 x 2)**

**a)** Furosemide and ethosuximide.

**b)** Prazocin and Nifedipine,

**c)** Pethidine and Haloperidol

**d)** Dibucaine and Clonidine

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**B.PHARM  
PH.6.5**

**6<sup>th</sup> Semester Regular / Back Examination 2016-17**

**PHYTOCHEMISTRY**

**BRANCH: Pharmacy**

**Time: 3 Hours**

**Max Marks: 70**

**Q.CODE: Z234**

**Answer Question No.1 which is compulsory and any five from the rest.**

**The figures in the right hand margin indicate marks.**

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

- a) How do you know the presence of Carbonyl group in Carvone?
- b) Give the therapeutic activity of Streptomycin?
- c) Write some examples of adsorbents use in TLC? What are the important applications of TLC in phytochemistry.
- d) Write two chemical tests for identification of flavonoids.
- e) Write the significance of reaction of Morphine with FeCl<sub>3</sub>.
- f) What is special isoprene rule? Explain with examples.
- g) Write the hydrolytic products of Atropine and which one is optically active.
- h) Write down the source and deficiency disease caused by Vitamin- C
- i) Write the role of Herzig-Meyer reaction in determination of structure of alkaloids.
- j) Write down the mechanism of action of cardiac glycoside on heart muscle.

**Q2 Differentiate between Cardenolides and Bufadenolides? Write the chemistry of Digoxin and Ouabain. (2+4+4)**

**Q3**

- a) What are the different physical methods useful for the separation and isolation of phytoconstituents from the crude drugs? (5)
- b) How Spectroscopy techniques are helpful for structural elucidation of a new organic compound. (5)

**Q4**

What is flavonoid and classify them with suitable examples. Write down the chemistry of Quercetin.

**(2+3+5)**

**Q5**

Explain the different methods of extraction and separation of terpenoid? Elucidate the structure of Menthol.

**(4+6)**

**Q6**

Write down the general methods of isolation of Alkaloid. Elucidate the structure of Ephedrine.

**(3+7)**

**Q7**

Classify Vitamins with suitable examples. Write down the chemistry of Folic acid.

**(3+7)**

**Q8**

**Write notes on:**

**(5+5)**

- a) Stereochemistry of Citral and Camphor
- b) Chemistry of penicillin

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**B.Pharm**  
**PH.6.7**

**6<sup>th</sup> Semester Regular / Back Examination 2016-17**

**PHARMACOGNOSY - IV**

**BRANCH: PHARMACY**

**Time: 3 Hours**

**Max Marks: 70**

**Q.CODE: Z283**

**Answer Question No.1 which is compulsory and any five from the rest.  
The figures in the right hand margin indicate marks.**

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

- a) Differentiate true and pseudo alkaloids, give example under each group.
- b) Write the principle involved in Gradient pH technique.
- c) Explain about Leha.
- d) Define Bhasmas. How these dosage forms prepared?
- e) Write the chemical constituents and uses of Lahsun.
- f) Name the botanical source, chemical constituents and uses of 'Punarnava'
- g) Mention four alkaloids containing indole nucleus.
- h) Write the method of Vitali-Morin Test.
- i) Write the main chemical constituents and uses of Gudmar.
- j) Write the source of Diosgenin. How it is useful.

**Q2** Write the biological source, cultivation, collection, macroscopical characters, chemical constituents, chemical tests and uses of Belladonna. **(10)**

**Q3 a)** What is Ergot? Describe its lifecycle. **(5)**

**b)** Mention the constituents and uses of Ergot. **(5)**

**Q4** Write in detail about general methods of extraction and isolation of alkaloids from plants source. **(10)**

**Q5** Write botanical source, chemical constituents present and their uses of the following plants : **(2.5X4)**

(a) Tobacco (b) Rauwolfia (c) Coffee (d) Cinchona

**Q6** Write the vernacular name, biological source, chemical constituents and uses of: **(2.5X4)**

(a) Shilajit (b) Brahmi (c) Satavari (d) Tulsi

**Q7 a)** Write the holistic concept of Ayurveda. **(5)**

**b)** Write on the preparation of Asvas and Aristas in detail. **(5)**

**Q8** Write the method of production and utilization of the following phytoconstituents:

**a)** Diosgenin **(5)**

**b)** Tropane Alkaloids **(5)**



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**B.Pharm**  
**PH.6.9**

**6<sup>th</sup> Semester Regular / Back Examination 2016-17**

**PHARMACOLOGY- II**

**BRANCH: Pharmacy**

**Time: 3 Hours**

**Max marks: 70**

**Q.CODE: Z410**

**Answer Question No.1 which is compulsory and any five from the rest.  
The figures in the right hand margin indicate marks.**

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

- a) Define Bioassay .Write the difference between Quantal nd Graded Bioassay.
- b) Classify calcium channel blockers.Give any two examples of second generation beta blockers with their use.
- c) Sildenafil is avoided in persons taking organic nitrates.True or False.Justify
- d) Write shortly about mechanism of actions of Streptokinase and Urokinase.
- e) Write the principal pharmacological effects of Quinidine,Disopyramide and Procainamide.
- f) Define Status Asthmaticus. Write examples of any two anti-inflammatory agents that acts as mast cell stabilizers and prevent histamine release.
- g) Define Prinzmetal's Angina. Why calcium channel blockers are used as an additionaltherapeutic agent along with isosorbide dinitrate for Prinzmetal's Angina.
- h) Give any two examples of diuretics acting on site- IV(collecting duct.Write their therapeutic uses.
- i) Give any two examples of respiratory stimulants. Write their possible Adverse effects.
- j) Define micro re-entry. Write any two possible causes of re-entrant arrhythmia.

- Q2 a)** Define cardiotonic drugs. Write the detail mechanism of action of Digitalis with suitable Diagram. **(5)**
- b)** Write the mechanism of action, ADR and therapeutic uses of ACE inhibitors. **(5)**
- Q3 a)** Classify anti-anginal drugs and other anti-ischemic drugs. Write the difference between Classical angina and variant angina. **(5)**
- b)** Write the Pharmacological actions, ADR and therapeutic use of Calcium Channel Blockers (CCBs). **(5)**
- Q4 a)** Classify drugs affecting 5-HT system. Write any two ADR and uses of Dihydroergotamine and ergometrine. **(5)**
- b)** Write details about biosynthesis of Prostaglandins (PG) and Leukotriene (LT). **(5)**
- Q5 a)** Define and classify Diuretics. Write the complications of high ceiling and Thiazide type Diuretic therapy. **(5)**
- b)** Write details about mechanism of actions, ADR and therapeutic uses of carbonic anhydrase inhibitors. **(5)**
- Q6 a)** Define mucokinetics. Write the specific approaches for treatment of cough. **(5)**
- b)** Classify drugs used for treatment of Bronchial Asthma. Write mechanism of actions, ADR and therapeutic uses of theophylline. **(5)**
- Q7 a)** Define Matching and bracketing Bioassay. Write the procedures of insulin Bioassay. **(5)**
- b)** Write the detail official procedures for three point bioassay of histamine. **(5)**
- Q8 Write short answer on any TWO: (5 x 2)**
- a)** Vitamin-K
- b)** plasma volume expanders.
- c)** Fibrinolytics
- d)** Anti diuretic hormone.

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**B.Pharm**  
**PH.6.11**

**6<sup>th</sup> Semester Regular / Back Examination 2016-17**  
**PHARMACEUTICAL JURISPRUDENCE AND ETHICS**

**BRANCH: Pharmacy**

**Time: 3 Hours**

**Max Marks: 70**

**Q.CODE: Z522**

**Answer Question No.1 which is compulsory and any five from the rest.**  
**The figures in the right hand margin indicate marks.**

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

- a) Define spurious drugs as per D.C Act..
- b) Gudakhu is a cosmetic . Yes or no, Justify.
- c) When the D.P.C.O and N.D.P.S Act was enacted.
- d) Distinguish a Pharmacy and chemist & Drugist shop.
- e) What do you mean by Lunatic.
- f) Distinguish between Patent and invention.
- g) What do you mean by MAPE.
- h) Name 4 names of Psychochotropic substances.
- i) Define Sch.G and SC.H drugs.
- j) Define the term Bonded laboratory.

**Q2 Write the constitution and function of Pharmacy Council of India (10)**

**Q3 What are the qualifications and powers of a Drug Inspector as per D.C Act. (10)**

**Q4 Write a brief note on:**

- a) Poison Act (5)
- b) Calculation of retail price as per DPCO. (5)

**Q5 Discuss the different features of the Medical Termination of Pregnancy Act and the rules under the Act. (10)**

**Q6 What are Narcotic Drugs. Discuss the NDPS Act. In brief. What are the penalties for Committing an offence under the Act. (10)**

**Q7 Write a brief note on code of Pharmaceutical Ethics. (10)**

**Q8 Write short answer on:**

- a) Patent Act (5)
- b) Experimentation on animals (as per prevention of Cruelty to animals Act.) (5)