

DR. BABASAHEB AMBEDKAR TECHNOLOGICAL UNIVERSITY, LONERE
End Semester Examination – Winter 2022

Date: 08/02/2023

Course:	B. Pharmacy	Sem:	V
Subject Name:	Medicinal Chemistry-II	Subject Code:	BP501T
Max Marks:	75	Duration:	3 Hr.

Instructions:

1. All questions are compulsory
2. Draw diagrams / figures wherever necessary
3. Figures to right indicate full marks

Q. 1. Objective Type Questions (Answer all the questions) (10 x 2) = 20

- i) Define diuretics with suitable examples.
- ii) Discuss the MOA of calcium channel blocker.
- iii) Classify anti-arrhythmic agents?
- iv) Discuss the MOA of Heparin.
- v) Draw the structure of Cortisone and Hydrocortisone.
- vi) How antimetabolites act as anticancer agents?
- vii) Discuss the role of nitric oxide in human body?
- viii) Write the scheme of synthesis of Benzocaine.
- ix) Explain the diseases of Thyroid gland with suitable example.
- x) Write a note on oral contraceptives.

Q. 2. Long Answers (Answer 2 out of 3) (2 x 10) = 20

- i) Classify the antihypertensive agents? Discuss in detail about ACE inhibitors and Angiotensin II Receptor Blocker along with SAR.
- ii) Give the classification of Antidiabetic agents with structures from each class. Discuss the SAR of sulfonylureas and draw the synthesis of Tolbutamide.
- iii) Classify antihistaminic agents by giving examples of each class. Explain in detail H1 antagonists and outline the synthesis of Diphenhydramine hydrochloride.

Q. 3. Short Answers (Answer 7 out of 9) (7 x 5) = 35

- i) Explain the chemistry and MOA of cardiac glycosides.
- ii) Discuss in detail about loop diuretics and thiazide diuretics.
- iii) Justify the sentence "Nitro vasodilator act as anti-anginal agent" with suitable example.
- iv) Classify antihyperlipidemic agents with suitable example. Explain MOA of HMG -CoA Reductase Inhibitors.
- v) Classify local anesthetics with suitable example and explain SAR of local anesthetics.
- vi) Discuss in detail about testosterone sex hormone with its structure, metabolism and SAR.
- vii) Classify anticancer agent with suitable examples and explain Alkylating agents.

- viii) Give an account of anticoagulants. Write the synthesis of warfarin.
- ix) Discuss proton pump inhibitors along with MOA.

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DR. BABASAHEB AMBEDKAR TECHNOLOGICAL UNIVERSITY, LONERE

End Semester Examination – Winter 2022

Date: 10/02/2023

Course : B. Pharmacy
Subject Name : Industrial Pharmacy-I
Max Marks : 75

Sem: V
Subject Code : BP502T
Duration : 3 Hr.

Instructions:

1. All questions are compulsory
2. Draw diagrams / figures wherever necessary
3. Figures to right indicate full marks

Q. 1. Objective Type Questions (Answer all the questions) (10 x 2) = 20

- i) What is BCS classification of drug? Enlist each class with example.
- ii) Explain preformulation with definition, goals and objectives.
- iii) Enlist manufacturing defects in tablet.
- iv) Define granulation. Give objectives and enlist methods of granulation.
- v) Define tablet. Enlist types of tablet.
- vi) Write difference between hard gelatin and soft gelatin capsule.
- vii) Write cleaning of containers and closures of parenteral
- viii) Explain any two excipient used in ophthalmic preparation.
- ix) Write a note on pull sealing method.
- x) Give steps involved in pressure and cold filling of aerosol manufacturing

Q. 2. Long Answers (Answer 2 out of 3) (2 x 10) = 20

- i) Enlist and explain pelletization techniques.
- ii) What is parenteral product? Write in detail quality control tests.
- iii) Define pharmaceutical aerosol. Describe the major components of same.

Q. 3. Short Answers (Answer 7 out of 9) (7 x 5) = 35

- i) Explain in detail physical properties of new drug molecule.
- ii) Enlist evaluation test of tablet. Explain any four.
- iii) Define excipient. Write excipients used in tablet.
- iv) Explain emulsion and suspension with definition, advantages, limitation and types.
- v) Give the filling methods of hard gelatin capsules.
- vi) Add a note on quality control test of soft gelatin capsule.
- vii) Discuss the preparation and evaluation of eye ointment.
- viii) Describe the formulation and preparation of shampoo.
- ix) Explain quality control test for glass.

-----END OF THE PAPER-----

Date: 13/02/2023

Course: B. Pharmacy
Subject Name: Pharmacology-II
Max Marks: 75

Sem: V
Subject Code: BP503T
Duration: 3 Hr.

Instructions:

1. All questions are compulsory
2. Draw diagrams / figures wherever necessary
3. Figures to right indicate full marks

Q. 1. Objective Type Questions (Answer all the questions)

(10 x 2) = 20

- i) Define Shock and explain how Shock can be managed.
- ii) What are Autocoids? Classify them.
- iii) Classify Anti-Arrhythmic drugs with suitable examples.
- iv) Brief note on Digoxin toxicity and its management.
- v) Give the Biosynthesis & Physiological role of Prostaglandins.
- vi) Define CHF. Write treatment measures of CHF.
- vii) What is Plasma Volume Expanders?
- viii) Classify Anti-Rheumatic drugs with suitable examples.
- ix) Enlist the hormones secreted by the Anterior and Posterior Pituitary gland.
- x) Write the MOA of Androgens used in Erectile dysfunctioning.

Q. 2. Long Answers (Answer 2 out of 3)

(2 x 10) = 20

- i) Enumerate the Classification of Anti-hypertensive agents with suitable examples. Write in brief the MOA of ACE inhibitors. Illustrate non-pharmacological management of Hypertension.
- ii) Write the biosynthesis and release of Thyroid hormones. Classify Anti-thyroid drugs with examples and explain their uses.
- iii) Classify oral anti-diabetic with suitable examples and explain the pharmacology of Sulfonylureas, DPP4- inhibitors.

Q. 3. Short Answers (Answer 7 out of 9)

(7 x 5) = 35

- i) Classify and enumerate drugs used in CCF and explain the pharmacology of Digoxin?
- ii) What are thrombolytics? Classify them with examples. Add a note on Aspirin.
- iii) Classify Anti- hyper-lipidaemics with suitable examples and explain the MOA of Statins & Bile acid sequestrants
- iv) Explain the synthesis, release and pharmacology of Histamine
- v) Classify diuretics with suitable examples. Explain the MOA of High ceiling diuretics.
- vi) Classify Anti-anginal drugs with suitable examples. Write the MOA of Organic Nitrate.
- vii) Define Bioassay. Write principle of Bioassay, application and methods.

- viii) Enlist various Histamine receptors and its antagonists. Brief the triple response of histamine.
- ix) Describe Bioassay of Insulin.

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DR. BABASAHEB AMBEDKAR TECHNOLOGICAL UNIVERSITY, LONERE

End Semester Examination – Winter 2022

Date: 13/02/2023

Course : B. Pharmacy
Subject Name : Pharmacology-II

Sem: V
Subject Code :BP503T
Duration : 3 Hr.

Max Marks : 75

Instructions:

1. All questions are compulsory
2. Draw diagrams / figures wherever necessary
3. Figures to right indicate full marks

Q. 1. Objective Type Questions (Answer all the questions)

(10 x 2) = 20

- i) Explain electro-physiology of heart.
- ii) Classify anti arrhythmic drugs.
- iii) Explain mode of action of Nitroglycerine.
- iv) Explain therapeutic uses of anti coagulants.
- v) Define and classify autacoids.
- vi) Explain role of growth hormone and enlist Growth hormone inhibitors.
- vii) Explain uses of Vitamin D.
- viii) Classify Non-Steroidal Anti-Inflammatory Drugs.
- ix) Explain action of Prolactin inhibitor-Bromocriptine
- x) Enlist fibrinolytics.

Q. 2. Long Answers (Answer 2 out of 3)

(2 x 10) = 20

- i) Explain in detail Etiology, drug classification, Pharmacology of antihypertensive drugs.
- ii) Discuss Synthesis, storage, role and pharmacology of thyroid hormones
- iii) Explain Principle and types of Bioassay. Discuss insulin bioassay.

Q. 3. Short Answers (Answer 7 out of 9)

(7 x 5) = 35

- i) Discuss mechanism of action of Digitalis
- ii) Explain pharmacology of Hematinics
- iii) Discuss Pharmacology of diuretics
- iv) Explain histamine their physiological role and classify anti-histaminics.
- v) Explain Pharmacology of Anti gout drugs
- vi) Discuss insulin preparations and oral hypoglycemic agents
- vii) Describe role of estrogen and progesterone as oral contraceptive drugs.
- viii) Discuss anti-hyperlipidemic drugs
- ix) Explain action of Prostaglandins

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DR. BABASAHEB AMBEDKAR TECHNOLOGICAL UNIVERSITY, LONERE
End Semester Examination – Winter 2022

Course: B. Pharmacy

Date: 15/02/2023

Subject Name: Pharmacognosy & Phytochemistry-II

Sem: V

Max Marks: 75

Subject Code: BP504T

Duration: 3 Hr.

I. Objective Type Questions

(10 X 2 = 20)

- i) Define the term extraction and electrophoresis.
- ii) Explain morphology of Senna leaflet
- iii) Draw a well labelled diagram of Soxhlet assembly and percolator
- iv) Define the term metabolic pathway and metabolites.
- v) Write the biological source and identification test of Cinchona bark.
- vi) Draw a well labelled diagram of Fennel fruit transverse section.
- vii) Define radioactive isotopes with examples.
- viii) Write Biological source and uses of Asafoetida.
- ix) Classify tannins with suitable examples
- x) Write in short applications of HPLC.

II. Long Answers (Answer 2 out of 3)

(2 X 10 = 20)

- i) Define and classify alkaloids with suitable examples and write in detail about Vinca.
- ii) Discuss in detail methods of extraction of Phytoconstituents.
- iii) Explain in detail shikimic acid pathway with its role in biosynthesis of metabolites.

III. Short Answers (Answer 7 out of 9)

(7 X 5 = 35)

- i) Write synonyms, biological source, chemical constituent, identification test and uses of Digitalis.
- ii) Write Industrial production, estimation and utilization of Sennosides.
- iii) Briefly explain Steps involved in tracer techniques.
- iv) Write about isolation, identification, analysis of Curcumin
- v) Define the term chromatography and add a note on TLC
- vi) Write Industrial production, estimation and utilization of Atropine
- vii) Write difference between Sumatra benzoin & Siam benzoin.
- viii) Give isolation identification and analysis of Caffeine.
- ix) Write synonyms, biological source, chemical constituent, morphology and uses of Fennel.

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DR. BABASAHEB AMBEDKAR TECHNOLOGICAL UNIVERSITY, LONERE

End Semester Examination – Winter 2022

Date: 17/02/2023

Course : B. Pharmacy

Subject Name : Pharmaceutical Jurisprudence

Max Marks : 75

Sem: V

Subject Code : BP505T

Duration : 3 Hr.

Instructions:

1. All questions are compulsory
2. Draw diagrams / figures wherever necessary
3. Figures to right indicate full marks

Q. 1. Objective Type Questions (Answer all the questions) (10 x 2) = 20

- i) Define following terms as per Narcotics drugs and Psychotropic substances Act, 1985:
 - a) Addict
 - b) Narcotic drug
- ii) Define according to D&C Act, 1940
 - a) Loan License
 - b) Cosmetic
- iii) Give formula for calculation of retail price of formulation as per DPCO 1995. Explain each term in formula.
- iv) What is code of ethics? Write down any two recommendations of DEC.
- v) What following schedules prescribe according to D&C Act, 1940?
 - a) Schedule H-1
 - b) Schedule G
- vi) Write down objectives of Right to Information Act, 2005.
- vii) Explain circumstances under which Registered Medical Practitioner can terminate pregnancy as per Medical Termination of Pregnancy Act, 1971.
- viii) Mention different sale licenses required for wholesale and retail of drugs as per D&C Act, 1940.
- ix) Write powers of Drug Inspector.
- x) Explain storage of schedule-X drugs under D&C Act, 1940.

Q. 2. Long Answers (Answer 2 out of 3) (2 x 10) = 20

- i) Write down requirements of labelling of drugs as per D&C Act 1940
- ii) Define: a) Advertisement b) Magic Remedy. Write down objectives and classes of prohibited advertisements of Drugs and Magic Remedies Act, 1954.
- iii) Write objectives, offences and penalties under NDPS Act, 1985.

Q. 3. Short Answers (Answer 7 out of 9) (7 x 5) = 35

- i) Explain purpose of Pharmaceutical legislation and duties of Pharmacist in relation to his profession.
- ii) What is Patent? What is the process of application of patent in India?
- iii) Define Bonded manufactory. Discuss its structure and manufacturing requirements.
- iv) Write constitution and functions of PCI.
- v) Define spurious drugs and give objectives of D&C Act 1940.
- vi) Give procedure for preparing first register & write down qualification required for entry on it as per Pharmacy Act 1948.

- vii) Discuss schedule N with reference to entrance, premises, furniture and equipments.
- viii) Write short note on Institutional Animal Ethics Committee.
- ix) Define:
 - a) Toilet Preparation
 - b) Maximum Retail Price
 - c) Repatriate
 - d) Ceiling Price
 - e) Spirit store

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