

DR. BABASAHEB AMBEDKAR TECHNOLOGICAL UNIVERSITY, LONERE

End Semester Examination – Winter 2022

Date: 07/02/2023

Course : B. Pharmacy

Sem: VI

Subject Name : Medicinal Chemistry-III

Subject Code :

BP601T

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=20M

1. Define the term antibiotic with suitable example.
2. Write a note on- Macrolide antibiotic
3. Classify anti-tubercular agents.
4. Write about quinolones.
5. Comment on- Antifungal antibiotics.
6. Write about folate reductase inhibitors.
7. What are various approaches used in drug design.
8. Enlist different applications of combinatorial chemistry.
9. What are anthelmintics.
10. Define the term prodrugs.
11. Explain classification and SAR of Sulfonamides.
12. Explain etiology of malaria

Q2. Long Answer Questions. (2 Out of 3)

2 x 10=20M

1. Explain in brief about stereochemistry, structure activity relationship and uses of β -lactam Antibiotics.
2. Write a note on- Synthetic anti tubercular agents.
3. Explain in brief about Antiviral agents.

Q. 3 Short Answer Questions. (7 Out of 9)

7 x 5=35M

1. Explain Pharmacophore modeling and docking techniques.
2. Write a note on solid phase synthesis.
3. Explain in brief about dapsone.
4. Comment on- Biguanides and dihydro triazines.
5. Explain in brief about stereochemistry and structure activity relationship of Aminoglycosides.
6. Explain unclassified antibiotics with suitable examples.
7. Explain in brief about structure activity relationship of quinolones.
8. What are Tetracyclines?
9. Write in brief about Anti-protozoal Agents.

DR. BABASAHEB AMBEDKAR TECHNOLOGICAL UNIVERSITY, LONERE

End Semester Examination – Winter 2022

Date: 09/02/2023

Course	: B. Pharmacy	Sem:	VI
Subject Name	: Pharmacology: III	Subject Code	: BP602T
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) What is Digestant? Give examples.
- ii) What is Nasal decongestant? Give its examples.
- iii) What is mechanism of action of Griseofulvin?
- iv) Define Antitussives along with Examples.
- v) Classify Antimicrobial agents based on chemical structure.
- vi) Give reason: 'Chloramphenicol causes Gray baby syndrome.'
- vii) What is mean by Chronopharmacokinetics?
- viii) What is Poison? Give types of Poisoning.
- ix) Give mechanism of action of Dapsone.
- x) What are Immunosuppressants? Give examples

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

- i) Define Bronchial Asthma and classify Anti asthmatic drugs with example and give pharmacology of any one Bronchodilator.
- ii) Explain malaria cycle. Classify Antimalarial drugs with example and Discuss mechanism of action of Chloroquine.
- iii) What is Chemotherapy? Classify Antineoplastic agents with example. Write Mechanism of action of Alkylating agents.

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

- i) Define and classify drugs used in Peptic ulcer. Give mechanism of action of Omeprazole.
- ii) What are Respiratory stimulants? Give pharmacology of Doxapram.
- iii) Discuss clinical Sign and symptoms along with management of Barbiturate poisoning.

- iv) Define and classify Anti-emetic drugs. Write the effects of metoclopramide on GIT.
- v) What are antibiotics? Give mode of action, adverse effect, therapeutic applications and contraindication for Tetracycline.
- vi) What is Tuberculosis? Classify Antitubercular drugs and give mechanism of action for Isoniazid.
- vii) What are sexually transmitted diseases? Explain treatment for them.
- viii) What is Biorhythm? Explain in detail concept of Chronopharmacology
- ix) Classify sulphonamides. Give its mechanism of action.

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

New

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

Date: 11/02/2023

Course : B. Pharmacy
Subject Name : Herbal Drug Technology
Max Marks : 75

Sem: VI
Subject Code :BP603T
Duration: 3Hr.

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 Herbal Medicine and Herbal Medicinal Product
- ii) Give four examples of Nutraceuticals used in treatment of Cancer with their use
- iii) List any four plant based industries in India
- iv) Describe standardization of Bhasma
- v) Name two Herbs used in Dental Care with their biological source
- vi) What is schedule Z
- vii) Give biological source and health benefits of Spirulina
- viii) Write note on natural sweeteners
- ix) Define Patent and Biopiracy
- x) Discuss the objectives of GMP

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

- i) Explain in detail WHO and ICH guideline for assessment of herbal drug
- ii) Describe different good agriculture practices in cultivation of medicinal plants
- iii) Discuss raw materials in hair care products as hair tonics.

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

- i) Discuss principle involved in Homeopathy system
- ii) Write possible side effects and interactions of drug Ginkobiloba and Garlic
- iii) Explain Liposomes as a novel dosage form
- iv) Explain regulation of manufacture of ASU drugs
- v) Explain role of nutraceuticals and health benefit in Irritable Bowel Syndrome with example
- vi) Write note on Biodynamic agriculture
- vii) Write in detail farmers rights
- viii) Describe general requirements for GMP for ASU medicines
- ix) Write a brief note on Herbs used in skin care cosmetics as protecting and antiaging agents

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

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

Date: 11/02/2023

Course: B.Pharmacy Sem: VI

Subject Name: Herbal Drug Technology

Max Marks: 75

Subject code: BP603T

Duration : 3 hr

Instructions:

1. All questions are compulsory
2. Draw diagrams / figures wherever necessary

Figures to right indicate full marks

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

(10x2)= 20

- i) Define Herb and herbal medicine product.
- ii) Explain Ephedra herb drug interaction.
- iii) Explain basic principles of Ayurveda.
- iv) Explain Ginger as Nutraceutical in CVS.
- v) Define Patent and Biopiracy.
- vi) Give biological source and health benefits of Spirulina.
- vii) Discuss the objectives of GMP.
- viii) Explain Alfalfa drug as role of nutraceutical in Diabetes.
- ix) Name two Herbs used in Dental Care with their biological source.
- x) What is IPR and give its types.

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

(2x10)= 20

- i) Explain method of preparation and evaluation parameters for Asava, Arishta and Bhasma.
- ii) Explain in detail raw material used for Hair care cosmetics.
- iii) Describe different good agriculture practices in cultivation of medicinal plants.

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

(7x5)=35

- i) Write institutions involved in work on medicinal & aromatic plants in India.
- ii) Explain regulation of manufacture of ASU drugs
- iii) Write in brief note on Farmers and Breeder's right.
- iv) Explain Homeopathy system of medicines.
- v) Write a note on organic farming.
- vi) Explain Liposomes as a novel dosage form
- vii) Define and classify herbal excipients with examples.
- viii) Write in detail about case study of Curcuma.
- ix) Explain WHO & ICH guidelines for stability testing of herbal drugs.

—END OF THE PAPER—

DR. BABASAHEB AMBEDKAR TECHNOLOGICAL UNIVERSITY, LONERE

End Semester Examination – Winter 2022

Tuesday, Date: 14-02-2023

Course- B. Pharmacy

Sem-VI

Subject Name- Biopharmaceutics & Pharmacokinetics

Subject code- BP604T

Max. Mark- 75

Duration-3 hrs

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) Give characteristics of an active transport mechanism.
- ii) What is enterohepatic cycling of a drug?
- iii) List factors affecting protein binding of drugs.
- iv) Give benefits of drug clearance.
- v) Comment on particle size as a tool to enhance bioavailability of drugs.
- vi) What is apparent volume of distribution.
- vii) Differentiate between transcellular & paracellular transport.
- viii) Write importance of urinary excretion data.
- ix) Enlist patient related factors of GI absorption of drugs.
- x) Explain concept of clearance.

Q. 2. Long Answers (Answer 2 out of 3) (5x10) = 20

- i) Define drug absorption. Discuss physiochemical factors influencing GI absorption of drugs.
- ii) Explain in detail one compartment open model- intravenous bolus administration.
- iii) Discuss the methods used for enhancing bioavailability through enhancement of drug solubility or dissolution rate.

Q. 3. Short Answers (Answer 7 out of 9) (7x5) = 35

- i) Explain various theories of drug dissolution.
- ii) Write a note on non-renal routes of drug excretion.
- iii) Explain passive diffusion & facilitated diffusion mechanism of drug transport.
- iv) What is IVIVC? Give its significance.
- v) Explain sigma minus method for determination of pharmacokinetic parameters.
- vi) Write a note on protein binding of drugs.

vii) Discuss about pH partition hypothesis.

viii) Explain method of residuals.

ix) Explain two compartment open model for IV bolus administration.

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DR. BABASAHEB AMBEDKAR TECHNOLOGICAL UNIVERSITY, LONERE

End Semester Examination – Winter 2022

Date: 16/02/2023

Course:	B. Pharmacy	Sem: VI	
Subject Name:	Pharmaceutical Biotechnology	Subject Code: BP605T	
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) Write the applications of genetic engineering.
- ii) Enlist various enzymes used in rDNA technique with their functions.
- iii) Differentiate between Major Histocompatibility Complex(MHC) class I and class II molecules.
- iv) Define Immunity. Enlist types of immunity
- v) Give role of microbes in industry.
- vi) Define Antigen and Antibody.
- vii) Give the roles of Southern and Western blotting techniques.
- viii) Define: transduction and conjugation.
- ix) Comment on cloning vectors. Give their examples.
- x) Differentiate between prokaryotic and eukaryotic cells.

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

- i) What is enzyme immobilization? Describe methods of enzyme immobilization along with their applications.
- ii) Explain in detail about the production and purification of monoclonal antibodies by hybridoma technology. Give their applications.
- iii) Explain the basic principle of rDNA technology. Write a detailed account on human insulin production by rDNA technology.

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

- i) Write a short note on PCR.
- ii) Explain the types of mutation and mutants with suitable examples.
- iii) Elucidate the structure of immunoglobulins with neat labelled diagram.
- iv) Explain about the production of penicillin by fermentation technique.
- v) Write a note on dried human plasma and plasma substitutes.
- vi) Illustrate large scale production fermenter design with its various controls.
- vii) Describe type I hypersensitivity reaction with suitable diagram.
- viii) Illustrate the working principle and applications of biosensors.
- ix) Elaborate ELISA technique.

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

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

Date: 20/02/2023

Course : B. Pharmacy
Subject Name : Quality Assurance
Max Marks : 75

Sem: VI
Subject Code : BP 606 T
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) Differentiate between QA and QC.
- ii) What are purchase specifications for equipment?
- iii) Define validation and calibration.
- iv) What is master formula record? Give example.
- v) Enlist philosophies of TQM. Explain any one.
- vi) Explain different types of process validation.
- vii) Explain hydrolytic resistance test for glass containers.
- viii) Enlist steps for ISO registration.
- ix) Define Recall and classify it.
- x) What is SOP and quality audit?

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

(2 x 10) = 20

- i) Discuss in detail Analytical Method Validation.
- ii) Give scope for NABL accreditation and discuss in detail procedure for it.
- iii) Give purpose of ICH guidelines and discuss ICH stability testing guideline

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

(7 x 5) = 35

- i) Write a note on maintenance of sterile area and control of contamination.
- ii) Describe complaint evaluation.
- iii) Discuss in brief different elements of GLP.
- iv) Describe quality control tests for rubber.
- v) Write a note on Good Warehousing Practice.
- vi) Explain elements of QbD.
- vii) Discuss qualification of UV-Visible Spectrophotometer.
- viii) Write a note on personnel training, health and hygiene. Give an account of their responsibilities.
- ix) Discuss equipment qualification.

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

Date: 20/02/2023

Course : B. Pharmacy

Sem : VI

Subject Name : Quality Assurance

Subject Code : BP 606 T

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) Enlist benefits of ISO14000.
- ii) Define NABL accreditation.
- iii) Give the difference between QA and QC.
- iv) Enlist Q series of ICH Guidelines.
- v) What is contamination and cross contamination?
- vi) Define TQM. Discuss its advantages.
- vii) What is Batch Formula Record?
- viii) Classify packaging material used in the pharmaceutical industry with example.
- ix) Define Qualification and Calibration.
- x) What is warehousing and material management?

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

(2 x 10) = 20

- i) Discuss the importance of Good Laboratory Practices. Explain protocol content of Non-clinical laboratory study.
- ii) What is Validation? Explain types of validation and discuss validation master plan.
- iii) Define Quality control. Explain quality control test for containers.

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

(7 x 5) = 35

- i) Define airlock. Enlist different types of airlock and explain their working.
- ii) Discuss in brief different elements of GLP.
- iii) Discuss the QSEM guidelines as per ICH.
- iv) Write about the concept of quality by design (QbD) in pharma industry.
- v) Write a note on Master Formula Record.
- vi) Discuss qualification of UV-Visible Spectrophotometer.
- vii) Explain steps involved in complaint handling.
- viii) Explain various documents maintained by quality control department.
- ix) Explain about personnel responsibilities, training and hygiene.

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