DR. BABASAHEB AMBEDKAR TECHNOLOGICAL UNIVERSITY, LONERE

Regular/Supplementary Summer Examination – 2024

Course: B. Pharmacy | **Semester: VI**

Subject Name: Medicinal Chemistry-III | **Subject Code:BP601T**

Max Marks: 75 | **Date:12-06-2024** | **Duration: 3 Hr.**

Instructions to the Students:

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 down the applications of Prodrugs.	
ii)	Give the structure and use of Clindamycin.	
iii)	Write down about beta lactamase inhibitors.	
iv)	Outline the synthesis of Para Amino Salicylic Acid.	
v)	Discuss about folate reductase inhibitors.	
vi)	Draw structure of Ciprofloxacin and Nitrofurantoin.	
vii)	Discuss the MOA of aminoglycoside.	
viii)	Draw any two structures from Imidazole derivatives.	
ix)	Enlist the applications of Combinatorial Chemistry.	
x)	Discuss the term partition coefficient.	
Q.2.	**Long Answers (Answer 2 out of 3)**	**(10 X 2) = 20**
i)	Give in detail chemical classification of antibiotics with example and structure. Discuss the SAR, MOA and uses of Cephalosporin derivatives.	
ii)	Classify antimalarial agents with example and structure. Give SAR of 4-aminoquinolines. Outline the synthesis of Chloroquine.	
iii)	Give classification of antiviral agents with example. Discuss MOA of purine analogues. Draw the synthesis of Acyclovir.	
Q.3.	**Short Answers (Answer 7 out of 9)**	**(5 X 7) = 35**
i)	Write note on QSAR.	
ii)	Discuss the antiprotozoal agents.	
iii)	Give brief account of Tetracycline.	
iv)	Outline synthesis of Chloramphenicol. Give its uses.	
v)	Discuss agents used as urinary tract anti-infective.	
vi)	Write down short note on macrolide antibiotic.	
vii)	Enlighten beta lactam antibiotics.	
viii)	Write note on Synthetic antitubercular agents.	
ix)	Give an account of MOA and SAR of Sulphonamide.	

***** END OF THE PAPER *****

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DR. BABASAHEB AMBEDKAR TECHNOLOGICAL UNIVERSITY, LONERE

Regular/Supplementary Summer Examination – 2024

Course: B. Pharmacy **Semester: VI**

Subject Name: Pharmacology III **Subject Code: BP602P**

Max Marks: 75 **Date: 14-06-2024** **Duration: 3 Hr.**

Instructions to the Students:

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 Chronotherapy and Rhythm.	
ii)	What is Genotoxicity.	
iii)	Write a note on mode of action and uses of vincristine.	
iv)	What is biosimilars.	
v)	Enlist nonsystemic antacids.	
vi)	Which antidote uses for heavy metal poisoning.	
vii)	Differentiate Antitussives and Expectorant.	
viii)	What are antiemetics.	
ix)	Write a note on plasma volume expanders.	
x)	Define and classify purgatives.	
Q.2.	**Long Answers (Answer 2 out of 3)**	**(10 X 2) = 20**
i)	Define and classify anti-asthmatic drugs. Write in detail mode of action, adverse drug reaction and uses of sympathomimetics.	
ii)	Explain the categories of antitubercular agents and discuss in detail Para aminosalicylic acid. What is DOTS Therapy?	
iii)	Classify antineoplastic agents. Explain in detail mode of action, therapeutic uses and adverse effects of alkylating agents.	
Q.3.	**Short Answers (Answer 7 out of 9)**	**(5 X 7) = 35**
i)	Write short notes on sulfonamides.	
ii)	Give clinical systems and management of arsenic poisoning.	
iii)	What is anti–viral agents and explain acyclovir.	
iv)	Enlist anti-fungal drugs .write mode of action, adverse drug reaction and uses of polyene-antibiotics.	
v)	Drugs uses in treatment and management of COPD.	
vi)	Classify antiulcer agents and explain in details their role in management of ulcer.	
vii)	Explain mechanism of action of griseofulvin and fluconazole.	
viii)	Discuss sexually transmitted diseases and explain any one of them.	

ix)	Classify antibiotics and write note on quinolones
	***** END OF THE PAPER *****

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DR. BABASAHEB AMBEDKAR TECHNOLOGICAL UNIVERSITY, LONERE

Regular & Supplementary Summer Examination – 2024

Course: B. Pharmacy **Semester: VI**

Subject Name: Herbal Drug Technology **Subject Code: BP603T**

Max Marks: 75 **Date: 18-06-2024** **Duration: 3 Hr.**

Instructions to the Students:

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 the term Herb and Herbal medicinal products.	
ii)	Explain Breeder's right.	
iii)	Define Organic farming.	
iv)	Enlist any two natural binders and disintegrants.	
v)	Write health benefits of Honey as Nutraceutical.	
vi)	Define biopesticides with examples.	
vii)	Enlist any four evaluation parameters for Bhasma.	
viii)	Explain drug interactions of Garlic.	
ix)	Write any four examples of natural sweeteners.	
x)	Enlist any four plant based institutes involved in working on herbs in India.	
Q.2.	**Long Answers (Answer 2 out of 3)**	**(10 X 2) = 20**
i)	Describe in detail the method of preparation and general standardization parameters for Asava and Aristha.	
ii)	Discuss the Part-I components of GMP (Schedule T) for ASU drugs.	
iii)	Explain the basic principles involved in Homeopathy system of medicine.	
Q.3.	**Short Answers (Answer 7 out of 9)**	**(5 X 7) = 35**
i)	Define Biopiracy. Discuss the case study of Neem and Curcuma.	
ii)	Elaborate the herbs used in Hair care herbal cosmetics.	
iii)	Explain in detail WHO guidelines for the assessment of herbal drugs	
iv)	Discuss the manufacturing process and evaluation parameters for herbal syrup	
v)	Define Nutraceuticals. Explain role of Spirulina and Ginger as Health food.	
vi)	Explain the role of fixed oils and waxes in herbal cosmetics with examples.	
vii)	Discuss the Herbs as significant natural excipients with few examples.	
viii)	Elaborate the role of Nutraceuticals in Diabetes. Mention the significance of Ashwagandha as health food.	
ix)	Discuss the herb-drug interactions of Hypericum and Pepper	

***** END OF THE PAPER *****

DR. BABASAHEB AMBEDKAR TECHNOLOGICAL UNIVERSITY, LONERE

Regular/Supplementary Summer Examination – 2024

Course: B. Pharmacy **Semester: VI**

Subject Name: BIOPHARMACEUTICS AND PHARMACOKINETICS **Subject Code: BP604T**

Max Marks: 75 **Date:20-06-2024** **Duration: 3 Hr.**

Instructions to the Students:

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 in short about an active transport of drug.	
ii)	Write in short about non renal route of Excretion.	
iii)	What is loading & maintenance dose?	
iv)	Define bioavailability. What are the objectives of bioavailability studies?	
v)	Define and explain renal clearance.	
vi)	Explain in short about a passive transport of drug.	
vii)	What are the advantages of administering a drug by constant rate i.v. infusion over oral administration?	
viii)	Enlist the components of blood to which drug binds.	
ix)	What is AUC & $t_{1/2}$?	
x)	Give clinical significance of protein binding of drugs.	
Q.2.	**Long Answers (Answer 2 out of 3)**	**(10 X 2) = 20**
i)	Enlist various factors affecting absorption and explain in detail pharmaceutical factors affecting absorption of drug from GIT	
ii)	Write a detail note on kinetics of protein binding.	
iii)	Define distribution of drug. Discuss various factors affecting distribution of drug.	
Q.3.	**Short Answers (Answer 7 out of 9)**	**(5 X 7) = 35**
i)	Volume of distribution and its importance.	
ii)	Write a note on causes of Non-linear pharmacokinetics.	
iii)	What are various approaches used to enhance bioavailability of drug from its dosage form.	
iv)	Write a note on In-Vitro and In-Vivo co-relation.	
v)	What are various sites of drug metabolism in the body?	
vi)	Write detailed note on Blood Brain Barrier.	
vii)	Explain the design for one compartmental open model for the zero-order i.v. infusion.	
viii)	Explain Michaelis Menten equation and determination of Vmax and Km.	
ix)	Why drugs are better absorbed from small intestine? Explain.	

***** END OF THE PAPER *****

DR. BABASAHEB AMBEDKAR TECHNOLOGICAL UNIVERSITY
LONERE – RAIGAD – 402 103
End Semester Examination – Regular & Supplementary Summer 2024

Branch: B. Pharm. Semester:VI
Subject: Pharmaceutical Biotechnology Marks: 75
Subject Code: BP605T Time: 3hrs
Date: 24/06/2024

Instructions: i) All questions are compulsory.
ii) Figures to the right indicate full marks.
iii) Draw the diagrams or flow charts wherever necessary.

Q. No.1 Objective type questions. (Answer all the questions) **(2×10 =20 Marks)**

A] What are microbial transformation give two examples?

B] Write the importance of transposomes.

C] Describe the term protein engineering.

D] What is hypersensitivity? Enlist their types.

E] Distinguish between humoral mediated and cell mediated immunity.

F] What are batch culture and continuous culture?

G] What are plasma substitutes? Give its therapeutic uses.

H] Enlist different types of vectors used in genetic engineering.

I] Define the term biotechnology.

J] Describe the structure of immunoglobulin with a neat labeled diagram.

Q. No.2 Long answers (Answer 2 out of 3) **(10×2 = 20 Marks)**

A] What is enzyme immobilization? Write in detail different methods of enzyme immobilization.

B] Discuss in detail the different immuno-blotting techniques in detail (Northern, Western ELISA etc)

C] Describe construction and working of a fermenter. Discuss briefly on the production of penicillin by fermentation technology.

Q. No.3 Short answers (Answer 7 out of 5) **(7× 5 = 35 Marks)**

A] Describe biosensors. Illustrate the components and types of biosensors.

B] Explain briefly transformation, transduction and conjugation.

C] Describe the PCR. Write its applications.

D] Discuss the general method of preparation of live attenuated bacterial vaccines.

E] Give a brief account of the vectors used in genetic engineering with a neat diagram.

F] Write in brief the collection and storage of whole human blood.

G] Explain about the monoclonal antibodies with a neat diagram. Write its applications.

—— END OF PAPER ——

DR. BABASAHEB AMBEDKAR TECHNOLOGICAL UNIVERSITY
LONERE – RAIGAD – 402 103
End Semester Examination – Regular & Supplementary Summer 2024

Branch: B. Pharm. **Semester:VI**
Subject: Pharmaceutical Biotechnology **Marks: 75**
Subject Code: BP605T **Time: 3hrs**
Date: 24/06/2024

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E] Give a brief account of the vectors used in genetic engineering with a neat diagram.

F] Write in brief the collection and storage of whole human blood.

G] Explain about the monoclonal antibodies with a neat diagram. Write its applications.

H] Discuss the production of Vitamin B12 by fermentation.

I] Explain the different types of mutagenic agents.

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

DR. BABASAHEB AMBEDKAR TECHNOLOGICAL UNIVERSITY, LONERE

Regular/Supplementary Summer Examination – 2024

Course: B. Pharmacy | **Semester: VI**

Subject Name: Quality Assurance | **Subject Code: BP606T**

Max Marks: 75 | **Date:26-06-2024** | **Duration: 3 Hr.**

Instructions to the Students:

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)**	**(10X2) =20**
i)	Write the importance of SOP in manufacturing.	
ii)	Enlist the significances of Batch Formula Record.	
iii)	Write about Waste Disposal.	
iv)	State the importance of Contamination Control.	
v)	Write the general provisions of GLP.	
vi)	Write brief on 'Quality Audit'.	
vii)	Give details on Handling of Return Good.	
viii)	Brief note on concept of GMP.	
ix)	State the importance of Records and Reports.	
x)	What is ISO 9000 and ISO 14000.	
Q.2.	**Long Answers (Answer 2 out of 3)**	**(10X2) =20**
i)	Explain the ICH Stability Testing Guidelines.	
ii)	Discuss in details about GLP in Pharmaceuticals Industry.	
iii)	Explain the quality controls tests for Containers and Closures.	
Q.3.	**Short Answers (Answer 7 out of 9)**	**(5 X 7) = 35**
i)	Write a note on calibration of pH meter.	
ii)	What are the Complaints? Add a note on evaluation of Complaints.	
iii)	Discuss about maintenance of Equipments.	
iv)	Compare the concept of QA and QC as per GMP.	
v)	Purchase specification and maintenance of Stores for Raw Materials.	
vi)	Note on Plant Layout of Pharmaceutical industry.	
vii)	Compare the concept of Qualification and Validation.	
viii)	Write brief on 'Secondary Packing Materials'.	
ix)	Discuss briefly the Sterile Area's importance & its maintenance.	

***** END OF THE PAPER *****

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