QP Code: 621006 **Reg. No…….**

Sixth Semester B. Pharm Degree Regular/Supplementary Examinations May 2022
Medicinal Chemistry
(2017 Scheme)

Time: 3 Hours **Max. Marks: 75**

- ***Answer all questions to the point neatly and legibly • Do not leave any blank pages between answers • Indicate the question number correctly for the answer in the margin space***
- ***Answer all parts of a single question together • Leave sufficient space between answers***
- ***Draw diagrams wherever necessary***

Essays **(2x10=20)**

1. Outline the various physicochemical parameters used in QSAR based drug design.
2. Classify antiviral drugs with examples. Outline the synthesis of Acyclovir.

Short Notes **(7x5=35)**

3. Outline the synthesis and uses of Dapsone and metronidazole.
4. Write a short note on anti-protozoal agents with examples.
5. Outline the synthesis and mechanism of action of chloroquine.
6. Classify antifungal agents with examples.
7. Give the structure of Sulphamethoxazole. Discuss it's mechanism of action and uses.
8. Write a note on solution phase synthesis.
9. Discuss the SAR of Quinolines.

Answer Briefly **(10x2=20)**

10. Write the structure of 8-amino quinoline and 4-amino quinoline
11. Enlist the commonly used urinary tract anti-infectives.
12. Write the structure of Mefloquine and Proguanil.
13. Outline the synthesis of diethyl carbamazine.
14. Give the structure and uses of tolnaftate.
15. Discuss the chemistry of aminoglycosides.
16. Outline the synthesis of sulphamethoxazole.
17. Write the structure and uses of a monobactam.
18. Define anthelminthics with examples.
19. Give the structure and uses of a folate reductase inhibitor.

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QP Code: 622006 **Reg. No…….**

Sixth Semester B. Pharm Degree Regular/Supplementary Examinations May 2022
Pharmacology III

(2017 Scheme)

Time: 3 Hours **Max. Marks: 75**

- ***Answer all questions to the point neatly and legibly • Do not leave any blank pages between answers • Indicate the question number correctly for the answer in the margin space***
- ***Answer all parts of a single question together • Leave sufficient space between answers***
- ***Draw diagrams wherever necessary***

Essays **(2x10=20)**

1. Classify Anti-cancer drugs. Explain the mechanism of action and the adverse effects of Anti metabolites.
2. Classify Anti-ulcer drugs. Explain Proton Pump Inhibitors.

Short Notes **(7x5=35)**

3. Bronchodilators.
4. Classify anti diarrhoeal drugs.
5. Mechanisms of antibiotic resistance.
6. Tetracycline.
7. Metronidazole.
8. Chemotherapy of Sexually Transmitted Diseases.
9. Immunostimulants.

Answer Briefly **(10x2=20)**

10. Define digestants with examples.
11. Name two osmotic laxatives.
12. Give examples of Leukotriene antagonists.
13. Oral rehydration salt.
14. What are acid resistant penicillins. Give examples.
15. Give examples for second generation cephalosporins.
16. List the toxicities of Aminoglycosides.
17. Adverse effect of chloroquine.
18. Name two antifungal antibiotics.
19. First line drugs for tuberculosis.

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QP Code: 623006 **Reg. No…….**

Sixth Semester B. Pharm Degree Regular/Supplementary Examinations May 2022
Herbal Drug Technology
(2017 Scheme)

Time: 3 Hours **Max. Marks: 75**

- ***Answer all questions to the point neatly and legibly • Do not leave any blank pages between answers • Indicate the question number correctly for the answer in the margin space***
- ***Answer all parts of a single question together • Leave sufficient space between answers***
- ***Draw diagrams wherever necessary***

Essays **(2x10=20)**

1. Explain the various natural excipients used in cosmetics.
2. Explain method of preparation and standardization of Arista.

Short Notes **(7x5=35)**

3. Case study of Neem.
4. Explain the basic principle involved in Siddha system of medicine.
5. Pest and pest management in medicinal plants.
6. Explain skin care products used in herbal cosmetics.
7. Explain the health benefits of garlic and ginger.
8. Stability testing of herbal drugs.
9. Explain the present scope and future prospects of herbal drug industries.

Answer Briefly **(10x2=20)**

10. Define Bhasma and Churna.
11. Give the objectives of GMP.
12. Importance of organic farming.
13. Name two examples of nutraceuticals used in cancer.
14. Define Ayurveda and Unani system of medicine.
15. Name two examples each from natural colors and perfumes.
16. Explain farmer's right.
17. Mention the herb-drug interactions of Kava-Kava.
18. Name different types of Ayurvedic dosage forms.
19. Processing of herbal raw material.

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QP Code: 624006 **Reg. No…….**

Sixth Semester B. Pharm Degree Regular/Supplementary Examinations May 2022
Biopharmaceutics and Pharmacokinetics

(2017 Scheme)

Time: 3 Hours **Max. Marks: 75**

- ***Answer all questions to the point neatly and legibly • Do not leave any blank pages between answers • Indicate the question number correctly for the answer in the margin space***
- ***Answer all parts of a single question together • Leave sufficient space between answers***
- ***Draw diagrams wherever necessary***

Essays **(2x10=20)**

1. Explain the kinetics of one compartment open model through extravascular administration.
2. Elaborate the physicochemical properties of the drug affecting drug absorption.

Short Notes **(7x5=35)**

3. Describe the causes for non-linearity.
4. Describe the criteria for obtaining valid urinary excretion data.
5. Elaborate the sigma minus method to estimate K_E from urinary excretion data.
6. Describe diffusion layer model/film theory.
7. Elaborate the limitations of pH partition hypothesis.
8. Explain the factors affecting distribution of drugs.
9. Describe elimination half-life apparent volume of distribution and clearance in detail.

Answer Briefly **(10x2=20)**

10. Glutathione conjugates are not detectable in urine. Why.
11. How are drugs classified under BCS (Biopharmaceutical Classification System).
12. What is the influence of K_a, K_E, on C_{max}, t_{max} and AUC.
13. Flip flop phenomenon.
14. Michaelis-Menten equation.
15. Explain the role of cytochrome p-450 enzyme in oxidative reactions.
16. What are the characteristic features of drug binding.
17. Draw Scatchard plot for protein drug binding.
18. Explain the role of tissue binding of drugs.
19. Define polymorphism and pseudo polymorphism.

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QP Code: 625006 **Reg. No…….**

Sixth Semester B. Pharm Degree Regular/Supplementary Examinations May 2022
Pharmaceutical Biotechnology

(2017 Scheme)

Time: 3 Hours **Max. Marks: 75**

- ***Answer all questions to the point neatly and legibly • Do not leave any blank pages between answers • Indicate the question number correctly for the answer in the margin space***
- ***Answer all parts of a single question together • Leave sufficient space between answers***
- ***Draw diagrams wherever necessary***

Essays **(2x10=20)**

1. Discuss in detail about production of Monoclonal antibodies by hybridoma technology
2. Write about fermentative production and purification of pencillins.

Short Notes **(7x5=35)**

3. Write in detail about PCR technique
4. Explain in brief about structure and parts of a fermenter with the help of a diagram
5. Explain the production of insulin hormone by rDNA technology
6. With the help of neat labelled diagram explain about structure of immunoglobulins and its classification
7. Explain the general method of preparation of any one viral vaccine with examples
8. Write in detail about gene transfer mechanism by transduction
9. Differentiate between humoral and cell mediated immunity with examples

Answer Briefly **(10x2=20)**

10. Plasmids
11. Conjugation
12. Southern blotting
13. Any one Toxoid
14. Define biotechnology. Mention any two applications in pharmaceutical sciences
15. Dried plasma
16. Define microbial biotransformations.
17. Genetic engineering
18. Storage condition of any two bacterial vaccines.
19. Biosensors

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QP Code: 626006 **Reg. No……**

Sixth Semester B. Pharm Degree Regular/Supplementary Examinations May 2022
Pharmaceutical Quality Assurance
(2017 Scheme)

Time: 3 Hours **Max. Marks: 75**

- ***Answer all questions to the point neatly and legibly • Do not leave any blank pages between answers • Indicate the question number correctly for the answer in the margin space***
- ***Answer all parts of a single question together • Leave sufficient space between answers***
- ***Draw diagrams wherever necessary***

Essays **(2x10=20)**

1. How to write an effective validation master plan.
2. ISO 9000 and ISO 14000 certification: how to get it and why.

Short Notes **(7x5=35)**

3. Just how to implement the good laboratory practice in new pharma industry.
4. How to design the plant layout for sterile area.
5. Explain the personnel responsibilities in the organization.
6. Discuss the general principles of calibration qualification and validation.
7. Explain the protocol for conduct of a non-clinical laboratory study.
8. Discuss about the principles and procedures of NABL accreditation.
9. Explain the elements and philosophies of total quality management.

Answer Briefly **(10x2=20)**

10. Quality control test for containers
11. Define validation as per USFDA.
12. Write about the purchase specification
13. list out the types of equipment qualification
14. In grade A sterile area how many 0.5-to-5-micron number of particles permitted per cubic meter equal to or above
15. Expand HEPA and LAF.
16. Explain photo stability testing guideline.
17. List out the benefits NABL accreditation.
18. Classify the types of quality audit.
19. Elements of QbD

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