

Your answers should be specific to the questions asked.  
Draw neat labeled diagrams wherever necessary. Answer all questions

**LONG ESSAY (Answer any TWO)****2 X 20 = 40 Marks**

1. Explain etiopathogenesis of angina pectoris and its management
2. Explain in detail the drug treatment of anxiety and mood disorders
3. Describe etiology, pathophysiology and drug therapy of diabetes

**SHORT ESSAY (Answer any FIVE)****5 X 10 = 50 Marks**

4. Discuss about immunosuppressants and immunostimulants
5. Classify various coagulation disorders and mention the drugs used in treatment of various types anemia
6. Explain the etiopathogenesis of rheumatoid arthritis and osteoarthritis
7. Classify various neoplastic diseases and discuss the chemotherapy of any one neoplastic disease
8. Explain the management of peptic ulcer and GERD
9. Explain etiopathogenesis and management of CHF

**SHORT NOTES****2 X 5 = 10 Marks**

10. Write short note on functions of cell membrane
11. Mention the drugs used in treatment of malaria

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**LONG ESSAY (Answer any TWO)****2 X 20 = 40 Marks**

1. Define segmentation. Explain with examples the different ways of segmenting the pharmaceutical market. What are the advantages and disadvantages of segmentation?
2. Explain in detail the product life cycle for pharmaceuticals with strategies to be adopted at each stage. Add a brief note on the Drugs and Magic Remedies Act.
3. Define product positioning. Explain with examples the different positioning strategies for pharmaceutical products.

**SHORT ESSAY (Answer any FIVE)****5 X 10 = 50 Marks**

4. Discuss current pharmaceutical industry scenario in India
5. Explain in detail the different steps involved in field research
6. Explain the different forecasting techniques applicable to the pharmaceutical market
7. Explain the impact of National drug policy on pharmaceutical market
8. Write note on the different aspects of training of field personnel
9. Discuss in brief the various considerations to be reviewed for launch of a product in the international market

**SHORT NOTES (Answer both)****2 X 5 = 10 Marks**

10. Write short notes on the steps involved in the marketing of industrial goods
11. Write notes on the role of the product manager in pharmaceutical marketing

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**LONG ESSAY (Answer any TWO)****2 X 20 = 40 Marks**

1. Discuss about tasks, responsibilities and leadership styles of professional managers
2. Discuss various human resource management function (HRM) in a pharmaceutical company
3. Explain the various operation research techniques used by pharma industry

**SHORT ESSAY (Answer any FIVE)****5 X 10 = 50 Marks**

4. Explain inventory control models for pharmaceutical industry
5. Discuss productivity concepts of pharmaceutical business
6. Explain effective communication skills used in pharmaceutical organizations
7. Classify barriers of communication and explain process of communication
8. Explain organization structure of a pharmaceutical unit
9. Explain about decision making under various situations in pharmaceutical business

**SHORT NOTES****2 X 5 = 10 Marks**

10. Management information system (MIS)
11. Break even analysis

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**LONG ESSAY (Answer any TWO)**

**2 X 20 = 40 Marks**

1. Stability testing procedure as per ICH guidelines for pharmaceuticals
2. Pilot scale up techniques for tablets
3. Manufacturing licences and their requirements as per drugs and cosmetic act

**SHORT ESSAY (Answer any FIVE)**

**5 X 10 = 50 Marks**

4. What are the salient features of ISO 9000
5. Validation of mixer used in tablet manufacturing
6. Langrangian technique of optimization in pharmaceutical formulation
7. Effluent treatment in fermentation industry
8. Material handling techniques for pharmaceutical products
9. Layout of building for manufacturing parenterals

**SHORT NOTES**

**2 X 5 = 10 Marks**

10. What are the different types of intellectual property rights briefly explain each type
11. Quality assurance concept in pharma industry

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