

Code No. 2.1

**JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY HYDERABAD**  
**Pharm D SECOND YEAR EXAMINATIONS**

**July-August, 2012**

**PATHOPHYSIOLOGY**

**Time: 3 hours**

**Max.Marks:70**

**Answer any five questions**  
**All questions carry equal marks**

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1. What is inflammation? Discuss about the various mediators and events that occur during inflammation. [14]
2. Write a short note on role of T cells and B cells in immunity. Add a note on transplantation and allograft rejection. [14]
3. Define malignancy and metastasis. Classify tumors and discuss the general biology of tumors and spread of malignant tumors. [14]
4. Enumerate the different types of shock. Write in detail about causes and mechanisms involved in shock due to acute blood loss. [14]
- 5.a) Discuss the health hazards of air pollution and smoking.  
b) Write a note on role of obesity on overall health. [14]
6. Discuss the pathophysiological changes that occur during various cardiac diseases. [14]
7. Discuss the etiopathogenesis of hypertension and asthma. [14]
8. Write a short note on:  
a) Urinary tract infections  
b) Hepatitis  
c) Schizophrenia. [14]

**JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY HYDERABAD**  
**Pharm D SECOND YEAR EXAMINATIONS**  
**July-August, 2012**

**PHARMACEUTICAL MICROBIOLOGY**

Time: 3 hours

Max.Marks:70

Answer any five questions  
All questions carry equal marks

**More Updates Follow at [www.pharmawisdom.blogspot.com](http://www.pharmawisdom.blogspot.com)**

- 1.a) Explain various applied areas of microbiology. Give a brief account on importance of microorganisms in each of these applied fields.
- b) Write a short note on types of media used in cultivation of microorganisms. [7+7]
- 2.a) Write about the classification of microorganisms on basis of nutritional requirements.
- b) Describe the structure and function of plasma membrane and mesosomes of bacteria. [7+7]
3. Explain different methods used in isolation and identification of bacteria with emphasis to different staining techniques and biochemical reactions. [14]
- 4.a) What are disinfectants? Classify them. Give the mechanism of action and practical applications of each class.
- b) Explain general procedure in sterility testing of pharmaceutical preparation as per I.P. [7+7]
5. Differentiate the following
  - a) Cellular immunity and Humoral immunity.
  - b) Active immunity and Passive immunity. [7+7]
6. Explain the principle, procedure and uses of following diagnostic methods:
  - a) Southern blotting
  - b) Schick's test. [7+7]
- 7.a) What are microbiological assays? Write the principle for microbiological assay of antibiotics. Explain in detail any one method used in assay of Penicillin as per I.P.
- b) Explain the Standardization of Vaccines and Sera. [7+7]
- 8.a) Give an account of different forms of Hepatitis and its clinical symptoms.
- b) What is the causative microorganism of Gonorrhea? Write a note on its pathogenicity, symptoms and treatment. [7+7]

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Time: 3hours

Answer any five questions

All questions carry equal marks

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- 1.a) What are the basic nutritional requirements for the growth of micro organisms? [14]  
b) Write about growth and cultivation of bacteria.
- 2.a) Write in detail about different methods used in isolation and identification of bacteria. [14]  
b) Give an account on different biochemical reactions of bacteria.
- 3.a) Explain different methods of sterilization including their merits and demerits. [14]  
b) Write about sterility testing of different pharmaceutical preparations.
- 4.a) Explain the factors affecting the activation and mechanism of action of  
i) Disinfectants ii) Antiseptics  
b) Write brief account on evaluation of preservatives in pharmaceutical preparations. [14]
- 5.a) Define and classify immunity and write general principles of natural immunity. [14]  
b) Write in detail various antigen-antibody reactions.
6. What are diagnostic tests? Write the principle and method involved in following tests. [14]  
i) ELISA ii) Westren blot iii) QBC.
- 7.a) What is microbiological assay? Write the principle and method of microbiological assay of Streptomycin. [14]  
b) Write a note on standardization of vaccines.
8. Write a brief note on following diseases: [14]  
i) Tuberculosis ii) Hepatitis iii) HIV.

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Code No. 2.3

**JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY HYDERABAD**  
**Pharm D SECOND YEAR EXAMINATIONS**

**July-August, 2012**

**PHARMACOGNOSY AND PHYTOPHARMACEUTICALS**

**Time: 3 hours**

**Max.Marks:70**

**Answer any five questions**

**All questions carry equal marks**

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1. Define the following
  - a) Compound Quills.
  - b) Parquetry arrangement
  - c) Trichomes
  - d) Disadvantages of pesticides.

[2+2+6+4]
2. Write note on:
  - a) Morphological classification
  - b) Storage of crude drugs.

[7+7]
- 3.a) Explain briefly the present status of pharmacognosy in the area of research.  
b) Write the various methods used in detection of adulteration with examples? 

[6+8]
- 4.a) Write about viscose rayon and differentiate from cotton.  
b) Differentiate wool and silk with chemical tests. 

[8+6]
- 5.a) Give the source, method of extraction, chemistry and method of analysis of lipids?  
b) Define protein and write a note on collagen? 

[10+4]
6. Give the biological source, family, chemical constituents and uses
  - a) Cinchona
  - b) Liquorice
  - c) Clove.

[4+4+6]
7. Write the diagnostic characters and chemical tests for:
  - a) Nux vomica
  - b) Cinnamon
  - c) Quassia.

[5+5+4]
- 8.a) Give the method of preparation of any four starches?  
b) Distinguish acacia from tragacanth. 

[10+4]

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**JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY HYDERABAD**  
**Pharm D SECOND YEAR EXAMINATIONS**  
**July-August, 2012**  
**PHARMACOLOGY-I**

Time: 3 hours

Max.Marks:70

**Answer any five questions**  
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**More. Updates Follow at [www.pharmawisdom.blogspot.com](http://www.pharmawisdom.blogspot.com)**

- 1.a) What are different types of routes of administration and discuss their advantages & disadvantages?
- b) What is drug interaction and discuss different kinds of Pharmacokinetic drug Interactions with examples? [7+7]
- 2.a) Classify Parasympathomimetics and write the pharmacological actions of acetylcholine.
- b) Add a short note on neuromuscular blockers.
- c) Explain how anti cholinesterases are useful in the management of myastheniagravis. [7+3+4]
- 3.a) Classify antianginal drugs and write the pharmacology of organic nitrates.
- b) Classify antihyperlipidemic drugs and discuss the pharmacology of statins. [7+7]
- 4.a) Classify antipsychotic drugs and write the pharmacology of chlorpromazine.
- b) Classify antiepileptics and discuss the mechanism of action of phenytoin and carbamazepine.
- c) Write the mechanism of action of benzodiazepines. [6+5+3]
- 5.a) Classify NSAIDs and write about the pharmacology and adverse reactions of aspirin.
- b) Write a short note on antidepressants. [10+4]
- 6.a) Classify antiasthmatic drugs and add a note on bronchodilators.
- b) Write a note on expectorants.
- c) Explain how the adrenergic drugs are used as nasal decongestants. [6+5+3]
- 7.a) Discuss the drugs used in the management of thyroid storm.
- b) Add a short note on insulin.
- c) Discuss the mechanisms of oral contraceptives. [6+4+4]
- 8.a) Classify H<sub>1</sub> receptor antagonists and discuss their therapeutic uses.
- b) Explain the importance of 5HT agonists in the management of depression & migraine.
- c) Add a short note on leukotrienes. [5+5+4]

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Code No. 2.5

**JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY HYDERABAD**  
**Pharm D SECOND YEAR EXAMINATIONS**

**July-August, 2012**

**COMMUNITY PHARMACY**

**Time: 3 hours**

**Max.Marks:70**

**Answer any five questions**  
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1. Discuss in detail about the responsibilities of a community pharmacist. [14]
2. What is medication adherence? What is its importance? How it is assessed? [14]
3. What is a balanced diet? Explain about vitamin deficiency disorders and their prevention. [14]
4. Discuss about the pathophysiology and drugs used for pain and fever. [14]
5. Write about the following  
a) Concept of essential drugs                      b) Rational use of injections. [14]
6. Explain the following  
a) Techniques of patient counselling  
b) Role of pharmacist in family planning. [14]
7. Write about  
a) Symptoms and prevention of tuberculosis  
b) Neonatal care. [14]
8. Discuss about  
a) Study of prescription  
b) Ophthalmic disorder care. [14]

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**JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY HYDERABAD**  
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**July-August, 2012**

**PHARMACOTHERAPEUTICS - I**

**Time: 3hours**

**Max.Marks:70**

**Answer any five questions**

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1. What essential hypertension and how is it different from secondary hypertension? Discuss the pathophysiology and clinical management of hypertension. Add a note on hypertensive crisis. [14]
2. Write in detail about various drugs that induce pulmonary diseases. Add a note on pulmonary function tests and treatment of status asthmaticus. [14]
3. Describe the etiopathology, symptoms and treatment of hypothyroidism. [14]
4. What are the prescription guidelines to be followed in geriatrics and during pregnancy and lactation? Write in detail with suitable examples. [14]
5. What is glaucoma? Discuss the pathogenesis and treatment of glaucoma. [14]
6. What do you understand about essential drugs and rational drug use? Discuss the role of a pharmacist in the same. [14]
7. What is congestive heart failure? Write in detail about pathophysiology and therapy of CHF. [14]
8. Write a short note on
  - a) Myocardial infarction and its treatment
  - b) Hormone replacement therapy.[14]

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