Rajiv Gandhi University of Health Sciences, Karnataka

I Year Pharm-D Examination – MAY 2015

Time: Three Hours   **Max. Marks: 70 Marks**

HUMAN ANATOMY & PHYSIOLOGY

Q.P. CODE: 2851

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

LONG ESSAYS (Answer any Two)   **2 x 10 = 20 Marks**

1. Name different hormones of the pituitary gland and write their functions.

2. Draw a neat labeled diagram of ear and discuss the physiology of hearing.

3. Classify nervous system. Describe the distribution and functions of sympathetic and parasymphathetic nervous systems.

SHORT ESSAYS (Answer any Six)   **6 x 5 = 30 Marks**

4. Discuss the endocrine and exocrine functions of pancreas.

5. Give a brief note on the mechanism of respiration.

6. Discuss the different waves of ECG. Write the significance of ECG.

7. Explain the mechanism of blood coagulation.

8. Describe the functions of hypothalamus and medulla oblongata.

9. Discuss the mechanism of urine formation.

10. Write a note on functions of nucleus, mitochondria and Golgi complex.

11. Give the structure and function of lymph node.

SHORT ANSWERS   **10 x 2 = 20 Marks**

12. Name the bones of lower limbs.

13. Significance of corpus luteum.

14. Functions of Saliva.

15. Define angina pectoris and atherosclerosis.

16. Composition of blood plasma.

17. What is bile? Give its role in digestion.

18. Significance of Renal clearance tests.

19. Define myasthenia gravis.

20 Define polycythemia and anaemia.

21. Classify joints.

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Rajiv Gandhi University of Health Sciences, Karnataka

I Year Pharm-D Examination – MAY 2015

Time: Three Hours   Max. Marks: 70 Marks

PHARMACEUTICS

Q.P. CODE: 2852

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

LONG ESSAYS (Answer any Two)   **2 x 10 = 20 Marks**

1. Define and classify suspensions. Explain the method of preparation of suspensions containing indiffusible solids.
2. Explain the simple percolation process with a neat labeled diagram.
3. Briefly explain the preparation and sterilization of catgut.

SHORT ESSAYS (Answer any Six)   **6 x 5 = 30 Marks**

4. Explain the principle and procedure involved in the preparation of Effervescent powders.
5. Write about preparation of Turpentine liniment.
6. Calculate the working formula for 12 suppositories (2gram size) of tannic acid each containing 300mg of tannic acid. (Displacement value of tannic acid =0.9).
7. Explain briefly the various tests to identify the type of emulsions.
8. Write a brief note on Extra Pharmacopoeia.
9. Write the principle involved in the preparation of strong solution of ammonium acetate.
10. Explain physical incompatibility with examples.
11. Define and classify powder dosage form. Write the difference between Simple and compound powders.

SHORT ANSWERS   **10 x 2 = 20 Marks**

12. Explain Superscription part of prescription.
13. Mention the advantages of Cocoa butter as suppository base.
14. Give any two differences between Boilable and Nonboilable catgut.
15. Mention any two coloring and flavouring agents used in monophasic dosage from.
16. Define sutures and ligatures.
17. Define the term "reserved percolation".
18. Give any four examples for antioxidants.
19. Define posology. Mention Young's formula to calculate paediatric dose.
20 Define sedimentation volume.
21. Classify liquid dosage forms.

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Rajiv Gandhi University of Health Sciences, Karnataka

I Year Pharma-D Examination - MAY 2015

Time: Three Hours   **Max. Marks: 70 Marks**

MEDICINAL BIOCHEMISTRY

Q.P. CODE: 2853

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

LONG ESSAYS (Answer any Two)   **2 x 10 = 20 Marks**

1. Describe the steps involved in the complete oxidation of glucose to pyruvate under aerobic condition.
2. Explain in detail how fatty acid is activated and transported into mitochondria for oxidation, add a note on the energetics.
3. Define an enzyme. Outline the IUB classification of enzymes with examples. Explain lock and key model in detail.

SHORT ESSAYS (Answer any Six)   **6 x 5 = 30 Marks**

4. What is ECT? Describes its components
5. List out energy rich compounds and explain any one in detail
6. How is ammonia converted to urea?
7. Genetic code
8. Explain any two liver function tests
9. Enzyme Linked Immuno Sorbent Assay (ELISA)
10. Describe biosynthesis of pyrimidine nucleotides
11. Biochemical role and deficiency diseases of Thiamine

SHORT ANSWERS   **10 x 2 = 20 Marks**

12. Write the structure of any two sulphur containing amino acids
13. Give the biological significance of ketone bodies
14. HDL and LDL
15. Write the principle involved in the estimation of chlorides in biological samples
16. Endocytosis Vs Exocytosis
17. Porphoria
18. Radioimmunoassay
19. Urinary tract calculi
20 Define oxidative deamination with examples
21. Coenzymic forms of niacin and their role

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Rajiv Gandhi University of Health Sciences, Karnataka

I Year Pharma-D Degree Examination – MAY 2015

Time: Three Hours   **Max. Marks: 70 Marks**

PHARMACEUTICAL ORGANIC CHEMISTRY

Q.P. CODE: 2877

Your answers should be specific to the questions asked

Draw neat, labeled diagrams wherever necessary

LONG ESSAYS (Answer any two)   **2 x 10 = 20 Marks**

1.   a) Explain Bayer's strain theory. What are its limitations?
     b) Give three general methods of synthesis of cycloalkanes.
2.   Explain 1,2 and 1,4-addition reaction, compare the effects of temperature on 1,2 and 1,4-addition.
3.   Explain the mechanism of SN_1 and SN_2 reaction. Enumerate the factors affecting SN_1 and SN_2 reaction.

SHORT ESSAYS (Answer any six)   **6 x 5 = 30 Marks**

4.   Write a note on dehydration of Alcohols.

5.   Write a Satyzeff's elimination with an example.

6.   Classify the substituent group based on the orientation and reactivity of Electrophilic aromatic substitution reaction.

7.   What are Dienes? Discuss the stability of Conjugated Dienes.

8.   Define and classify isomerism with examples.

9.   Give reasons why a chloro group is deactivating and ortho para directing in Electrophilic aromatic substitution reaction.

10. Discuss the Phenol is acid in nature and write the effects and substituents on their acidity.

11. Give the mechanism of Benzoin condensation.

SHORT ANSWERS   **10 x 2 = 20 Marks**

12. Outline the conversion of carboxylic acid to amide.

13. Define Keto-enol tautomerism with example.

14. Define electrophile with examples.

15. State Lewis theory of Acids and Bases.

16. What is Homolysis and Heterolysis?

17. Define Hyperconjugation.

18. Which is having higher B.P – Ethanol or Dimethyl ether? Why?

19. Rules of Aromaticity

20. Comment Toluene on Nitration give mainly ortho-para substituted product.

21. What is "Diazotisation"? Write the reaction.

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Rajiv Gandhi University of Health Sciences, Karnataka

I Year Pharm-D Degree Examination – MAY 2015

Time: Three Hours   **Max. Marks: 70 Marks**

PHARMACEUTICAL INORGANIC CHEMISTRY

Q.P. CODE: 2878

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

LONG ESSAYS (Answer any two)   **2 x 10 = 20 Marks**

1. Write sources and effects of impurities in pharmaceutical substances.
2. Write the principle, reactions and apparatus involved in Arsenic limit test.
3. Define and classify various types of errors and write the different methods for minimization of errors.

SHORT ESSAYS (Answer any six)   **6 x 5 = 30 Marks**

4. What are expectorants? Classify with examples and write the assay of any one drug.
5. What are Primary and Secondary standards. Write the properties of an Ideal primary standard
6. Define Dental caries. Write the role of fluoride in preventing dental caries.
7. Define and classify Pharmaceutical Aids, write briefly about Antioxidants and coloring agents with examples.
8. Write briefly the various steps involved in Gravimetric analysis.
9. Write the assay of Ammonium chloride.
10. Define limit tests? Write the principle and procedure involved in the limit test for Iron.
11. Define and classify antacids, write the ideal characters of a good antacid.

SHORT ANSWERS   **10 x 2 = 20 Marks**

12. What are redox titrations? Give two examples.
13. Define Astringents with examples.
14. Write the chemical composition and uses of Talc.
15. What are desensitizing agents give examples.
16. Write about cements and fillers in dental caries.
17. Mention any four radiopharmaceuticals with their applications.
18. Define Antidotes. Give examples.
19. Masking and demasking agents.
20. Define Accuracy and Precision.
21. Structure of boric acid and its uses.

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Rajiv Gandhi University of Health Sciences, Karnataka
II Year Pharm-D Degree Examination – MAY 2015

Time: Three Hours   **Max. Marks: 70 Marks**

PATHOPHYSIOLOGY

Q.P. CODE: 2856

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

LONG ESSAYS (Answer Any Two)   **2 x 10 = 20 Marks**

1. Discuss in detail about causes, symptoms and pathogenesis of Parkinsonism.
2. Discuss in detail hypersensitivity reactions.
3   Definition, etiology, types, pathogenesis of cell injury.

SHORT ESSAYS (Answer Any Six)   **6 x 5 = 30 Marks**

4. Write the etiology and pathogenesis of myocardial infarction.
5. Explain briefly chronic obstructive pulmonary (airway) diseases.
6. Explain briefly effects of radiation on biological system.
7. Write the etiology and pathogenesis of obesity.
8. Chemical mediators of inflammation.
9. Explain briefly the mechanism of autoimmunity.
10. Write the etiology and pathogenesis of Ischaemic stroke.
11. Explain briefly stages and mechanism of shock.

SHORT ANSWERS   **10 x 2 = 20 Marks**

12. What is Phagocytosis?
13. Define isograft and Xenograft.
14. Allergy due to chemicals and drugs.
15. What is Von Gierke's Disease?
16. Vitamin C deficiency diseases?
17. Write briefly about transmission of leprosy.
18. Functions of Lipoproteins
19. Difference between depression and mania.
20. Urinary tract infections.
21. What is ulcerative colitis?

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Rajiv Gandhi University of Health Sciences, Karnataka

II Year Pharma-D Degree Examination – MAY 2015

Time: Three Hours　　　　　　　　　　　　　　　　　　　　**Max. Marks: 70 Marks**

PHARMACEUTICAL MICROBIOLOGY

Q.P. CODE: 2857

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

LONG ESSAYS (Answer any two)　　　　　　　　　　　　　　**2 x 10 = 20 Marks**

1. Classify disinfectants and explain the different methods of evaluation of bacteriostatic activity.
2. Explain in detail the nutrient requirements for cultivation of bacteria.
3. Write the principle and procedure involved in microbial assay of vitamin B_{12}.

SHORT ESSAYS (Answer any six)　　　　　　　　　　　　　**6 x 5 = 30 Marks**

4. List-out the differences between eukaryotic and prokaryotic cells.
5. Write the causative agent, mode of transmission, symptoms, prevention and treatment of typhoid.
6. Explain the structure of immunoglobulins.
7. Write the difference between exotoxins and endotoxins.
8. Discuss the mode of action and factors affecting UV radiation sterilization.
9. Write the principle and procedure involved in Indole production test.
10. Write in detail about standardization of vaccines.
11. Describe any two methods for cultivation of virus.

SHORT ANSWERS　　　　　　　　　　　　　　　　　　　　**10 x 2 = 20 Marks**

12. Ultra structure of bacterial cell wall
13. Acid fast staining
14. Stab and stoke culture
15. Types of viral vaccines with examples.
16. Spirocheates
17. Industrial uses of yeast
18. T and B cells
19. H and O antigen
20. Tyndallisation
21. Merits and demerits of membrane sterilization

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Rajiv Gandhi University of Health Sciences, Karnataka

II Year Pharm-D Degree Examination – MAY 2015

Time: Three Hours   **Max. Marks: 70 Marks**

PHARMACOGNOSY & PHYTOPHARMACEUTICALS

Q.P. CODE: 2858

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

LONG ESSAYS (Answer any Two)   **2 x 10 = 20 Marks**

1. Define Pharmacognosy. Write the History and Scope of Pharmacognosy.

2. Define and classify Lipids. Explain the methods of analysis of Lipids.

3. List out different methods of classification of Crude drugs. Explain Morphological and Chemical methods of classification with examples.

SHORT ESSAYS (Answer any Six)   **6 x 5 = 30 Marks**

4. Briefly note on Ergastic cell constituents.

5. Give biological source, method of preparation and uses of Cotton.

6. Write a note on Natural Pesticides.

7. Write chemical constituents, uses & method of production of Honey.

8. What are Stomata? Discuss their functions and types with examples.

9. Describe the morphology and powder characters of Senna.

10. Give the method of cultivation and collection of Opium.

11. Classify Proteins with examples. Write the chemical tests for Protein.

SHORT ANSWERS (Answer All)   **10 x 2 = 20 Marks**

12. Chemical tests for Acacia.

13. Significance of Vittae

14. Define Adulteration and Substitution.

15. Source of Vitamin-A

16. Write the source and uses of Quassia.

17. Differentiate between Organized & Unorganized crude drugs.

18. Give biological source and uses of Hydnocarpus oil.

19. Coppicing process

20. Write the chemical constituents and uses of Liquorice.

21. Describe the Shapes of Bark.

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Rajiv Gandhi University of Health Sciences, Karnataka

II Year Pharm-D Degree Examination – MAY 2015

Time: Three Hours   **Max. Marks: 70 Marks**

PHARMACOLOGY - I

Q.P. CODE: 2859

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

LONG ESSAYS (Answer any two)   **2 x 10 = 20 Marks**

1. Define congestive heart failure. Explain the drugs used for the treatment of CHF
2. Write different mechanisms of drug action and explain the G-protein coupled receptor
3. Classify antidepressants with examples. Write a note on tricyclic antidepressants.

SHORT ESSAYS (Answer any six)   **6 x 5 = 30 Marks**

4. Explain the pharmacology of sulfonyl ureas
5. Classify uterine stimulants with example. Write a note on oxytocin
6. Classify drugs used in the treatment of Parkinsonism with examples
7. Classify antihistamines with examples and mention their adverse effects
8. Classify anti- anginal drugs. Write the mode of action of organic nitrates
9. Write a note on cognition enhancers
10. Classify neuromuscular blocking agents with examples and write their uses
11. Drug Tolerance and Dependence

SHORT ANSWERS   **10 x 2 = 20 Marks**

12. Therapeutic uses and adverse effects of codeine
13. Physostigmine
14. Therapeutic uses and adverse effects of atenolol
15. Ideal properties of Local anaesthetics
16. List the common side effects of Morphine
17. Classify CNS stimulants with examples
18. Membrane stabilizing agents
19. Write the adverse effects of phenytoin
20. What do you mean by Tachyphylaxis
21. Write adverse effects and uses of Reserpine

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Rajiv Gandhi University of Health Sciences, Karnataka

II Year Pharma-D Degree Examination – MAY 2015

Time: Three Hours   **Max. Marks: 70 Marks**

COMMUNITY PHARMACY

Q.P. CODE: 2860

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

LONG ESSAYS   **2 x 10 = 20 Marks**

1. Define prescription. Explain the parts and legality of prescription.

2. Define medication adherence. Explain the factors affecting medication adherence. What are the ways to improve medication adherence?

3   Explain in detail role and responsibilities of community Pharmacist.

SHORT ESSAYS   **6 x 5 = 30 Marks**

4. How do you care for geriatric patients as a community pharmacist?

5. Explain screening for diabetes.

6. Patient information leaflets

7. Write a note on cause and clinical presentations of Leprosy.

8. What is EOQ, lead-time and safety stock?

9. Amoebiasis

10. AIDS awareness and preventive methods

11. Types of contraceptives

SHORT ANSWERS   **10 x 2 = 20 Marks**

12. Oral pills

13. Balanced diet

14. Define health.

15. Vasectomy

16. Essential drugs

17. Treponema pallidum

18. What is drug-food interaction?

19. Worms infestations

20. Pyrexia

21. Discuss inscriptions in prescription.

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Rajiv Gandhi University of Health Sciences, Karnataka

II Year Pharm-D Degree Examination – MAY 2015

Time: Three Hours

Max. Marks: 70 Marks

PHARMACOTHERAPEUTICS I

Q.P. CODE: 2882

Your answers should be specific to the questions asked

Draw neat, labeled diagrams wherever necessary

LONG ESSAYS (Answer any two)   **2 x 10 = 20 Marks**

1. Describe etiology, pathophysiology, signs and symptoms, diagnosis and pharmacotherapy of Bacterial Conjunctivitis.
2. Describe etiology, pathogenesis, signs and symptoms, diagnosis and pharmacotherapy of Asthma.
3. Explain the pathophysiology, symptoms, treatment goals and treatment of Diabetes Mellitus with Oral Drugs.

SHORT ESSAYS (Answer any six)   **6 x 5 = 30 Marks**

4. Explain the different types of Arrhythmias.

5. Explain the management of COPD.

6. Signs, symptoms and management of hyperthyroidism.

7. Guidelines for prescribing of drugs to Geriatric patients

8. Hormone Replacement Therapy

9. Signs, symptoms and treatment options of osteoporosis.

10. Classify different types of Hypertension and explain in detail calcium channel blockers.

11. Management of Dyslipidemia

SHORT ANSWERS   **10 x 2 = 20 Marks**

12. Define nitrate tolerance test.

13. Define Cor Pulmonale

14. Note on HMGCoA Reductase Inhibitors

15. Major ADR of Beta Blockers

16. Clinical presentation of Angina pectoris

17. Digoxin Toxicity

18. Thyrotoxicosis

19. ADR of Theophylline

20. Mention any four drugs contraindicated in Pregnancy

21. Define essential drug concept and give two examples of essential drugs.

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Rajiv Gandhi University of Health Sciences, Karnataka

III Year Pharm-D Degree Examination – MAY 2015

Time: Three Hours   **Max. Marks: 70 Marks**

PHARMACOLOGY –II

Q.P. CODE: 2861

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

LONG ESSAYS (Answer any Two)   **2 x 10 = 20 Marks**

1. Classify anti-cancer drugs with examples. Explain the mechanism of action of the different classes of antimetabolities.
2. Classify anticoagulants with examples. Explain the pharmacology of warfarin.
3. Explain the process of DNA replication in eukaryotes.

SHORT ESSAYS (Answer any Six)   **6 x 5 = 30 Marks**

4. Explain the mechanism of action and adverse effects of streptomycin.
5. Explain the basic principles of transcription in prokaryotes.
6. Classify immunosuppressants with suitable examples. Mention their common adverse effects.
7. Write a note on gene therapy.
8. Explain the mechanism of action, adverse effects and uses of amphotericin B.
9. Explain the pharmacology of INH.
10. Explain the mechanism of action, adverse effects and uses of acyclovir.
11. Write a note on antidiuretics.

SHORT ANSWERS   **10 x 2 = 20 Marks**

12. Write the mechanism of action of cyclosporine.
13. Acute toxicity studies.
14. What are thrombolytics? Give examples.
15. Mention the applications of diuretics.
16. Sulphonamides for topical use.
17. Name the cell cycle regulators and modifiers.
18. Enlist the drawbacks of natural penicillin.
19. Tumor suppressor genes
20. Classify the drugs used in the chemotherapy of leprosy.
21. Clotrimazole

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Rajiv Gandhi University of Health Sciences, Karnataka

III Year Pharm-D Degree Examination – MAY 2015

Time: Three Hours **Max. Marks: 70 Marks**

PHARMACEUTICAL ANALYSIS

Q.P. CODE: 2862

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

LONG ESSAYS (Answer any Two) **2 x 10 = 20 Marks**

1. Describe the basic principle of a potentiometric titration? Write the construction working advantages, disadvantages & application of standard hydrogen electrode.

2. What are Ion exchange resins? Explain Mechanism of Ion-exchange process and application of Ion-exchange chromatography.

3 Describe the construction and working of a double-beam UV/Visible spectrophotometer. Mention the advantages of double beam spectrophotometer over single beam spectrophotometer.

SHORT ESSAYS (Answer any Six) **6 x 5 = 30 Marks**

4. Explain the different modes of fundamental vibrations occurring in IR Spectroscopy.

5. Explain allowed transition and forbidden transitions occuring in absorption spectroscopy.

6. Define and classify chromatography with example.

7. Describe the term fluorescence and phosphorescence. Depict both the phenomena by energy diagram.

8. Describe the concept of moving boundary electrophoresis with a neat diagram.

9. Classify detectors used in gas chromatography. Write the construction and working of flame ionization detector.

10. What is Flame emission and Atomic Absorption spectrometry? How do you estimate the amount of sodium by the above techniques?

11. Define Validation? Classify and Explain each type in brief.

SHORT ANSWERS **10 x 2 = 20 Marks**

12. Write various ranges of electromagnetic spectrum.
13. Define red and blue shift with example.
14. Define Transmittance and absorbance in spectrometry.
15. What is activation of TLC Plate? How is it carried out?
16. Short notes on carrier Gases used in G.C.
17. Pharmaceutical applications of HPLC.
18. Define R_f and R_x values and give their significance.
19. What is importance of guard column in HPLC?
20. Write the principle of conductometric titrations.
21. What are stepwise and gradient elutions?

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Rajiv Gandhi University of Health Sciences, Karnataka

III Year Pharma-D Degree Examination – MAY 2015

Time: Three Hours   Max. Marks: 70 Marks

HOSPITAL PHARMACY
Q.P. CODE: 2863

Your answers should be specific to the questions asked
Draw neat, labeled diagrams wherever necessary

LONG ESSAYS (answer any two)   **2 x 10 = 20 Marks**

1. Define hospital pharmacy. Explain its organization and management.

2. Explain about developing therapeutic guidelines.

3. What is inventory control? Explain ABC method in detail.

SHORT ESSAYS (answer any six)   **6 x 5 = 30 Marks**

4. Define hospital? Write its classifications.

5. What is budget? Explain its preparation and implementation.

6. Explain pharmacy and therapeutic committee.

7. Role of pharmacist in Central Sterile Supply Services

8. Infection control committee

9. Write a note on procurement and warehousing of drugs and pharmaceuticals.

10. Explain floor stock method.

11. Write about continuing professional development programs.

SHORT ANSWERS   **10 x 2 = 20 Marks**

12. Handling of radiopharmaceuticals

13. Professional relationship with doctors

14. What are narcotics? Give two examples.

15. Total parenteral nutrition

16. Sterile formulations

17. Composition and category of DNS

18. Lead time

19. Individual prescription method

20. Mobile dispensing unit

21. Pharmacy communication

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Rajiv Gandhi University of Health Sciences, Karnataka

III Year Pharm-D Degree Examination – MAY 2015

Time: Three Hours   **Max. Marks: 70 Marks**

PHARMACEUTICAL JURISPRUDNCE

Q.P. CODE: 2864

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

LONG ESSAYS (Answer any Two)   **2 x 10 = 20 Marks**

1. Explain the drugs Technical Advisory Board and Central Drug Laboratory in detail.

2. Explain the constitution and functions of State Pharmacy Council. Add a note on Education Regulations.

3. Write in detail about bonded laboratory. Explain the manufacture of alcoholic preparations in bond.

SHORT ESSAYS (Answer any Six)   **6 x 5 = 30 Marks**

4. Explain the role of Pharmacist in relation to his Trade.

5. What are the essential differences between Loan and Repacking Licenses for manufacture of drugs?

6. What are the operation involved in cultivation, production and sale of Opium?

7. Describe Schedule N in detail.

8. What are the licence requirements for whole sale of drugs?

9. What are the qualification and duties of Drug Inspectors?

10. Write a note on advertisements exempted from prohibitions of Drug and Magic Remedies Act.

11. Explain in brief about provisions relating to manufacture and sale of indigenous drugs.

SHORT ANSWERS   **10 x 2 = 20 Marks**

12. Define the term Spurious Drug according to D & C Act.
13. Describe in brief the conditions to be fulfilled to obtain a license to start a pharmacy.
14. Write in brief about ware housing of alcoholic preparations according to M & TP Act.
15. Write the offenses and penalties under NDPS Act.
16. Give the legal definition for Schedule G & H.
17. Write the objectives of the Drugs and Magic remedies Act.
18. Name four Schedule X Drugs.
19. Give the label for Hair Dye.
20. Write in brief about the classes of drugs are prohibited to be imported into India.
21. Write duties of Government Analyst.

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Rajiv Gandhi University of Health Sciences, Karnataka

III Year Pharma-D Degree Examination – MAY 2015

Time: Three Hours   **Max. Marks: 70 Marks**

MEDICINAL CHEMSITRY

Q.P. CODE: 2865

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

LONG ESSAYS   **2 x 10 = 20 Marks**

1. Define and classify Sulphonamides with examples for each class. Outline the chemistry and their mechanism of action.

2. What are antibiotics? Classify them with examples. Write the chemistry and SAR of Tetracyclines.

3. Classify antineoplastic agents with one example for each class. Give the mechanism of action of antimetabolities.

SHORT ESSAYS   **6 x 5 = 30 Marks**

4. Classify viral diseases and enumerate drugs used in their therapy. Explain mode of action and uses of Zidovudine.

5. Describe the nomenclature, classification and therapeutic uses of Cephalosporins.

6. Write a note on CADD and Prodrug.

7. Write a note on combinatorial chemistry and its applications.

8. Outline the synthesis and uses of Ethacrynic acid and Benzthiazide.

9. Explain with suitable examples (a) Halogen containing anti-infectives (b) Dyes used as local anti-infectives.

10. Write the synthesis and uses of Trimethoprim and Pyrimethamine.

11. What are anti hypertensive agents? Classify them with examples.

SHORT ANSWERS   **10 x 2 = 20 Marks**

12. What are extended spectrum penicillins? Give examples and uses.

13. Write the structure and chemical name of Procainamide and Phenytoin.

14. Define the terms of antiseptics and bacteriostatics with examples.

15. What are Vasodilators? Give example.

16. What are antiprotozoal agents? Give the structure of Metronidazole.

17. What are diagnostic agents? Give their uses.

18. How does, carbonic anhydrase inhibitors acts as a diuretic? Give example.

19. Give the synthesis and uses of Tolbutamide.

20. Write any two structures and uses of preservatives.

21. What are antisense molecules? Give example.

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Rajiv Gandhi University of Health Sciences, Karnataka

III Year Pharm-D Degree Examination – MAY 2015

Time: Three Hours   **Max. Marks: 70 Marks**

PHARMACEUTICAL FORMULATIONS

Q.P. CODE: 2866

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

LONG ESSAYS   **2 x 10 = 20 Marks**

1. Describe the various evaluation tests for tablets.

2. Define suppositories. Discuss the suppository bases in detail.

3. Describe the formulation of parenteral dry powders and parenteral suspensions.

SHORT ESSAYS   **6 x 5 = 30 Marks**

4. Describe the manufacturing of hard gelatin capsules.

5. Write a note on vehicles used in parenteral preparation.

6. Slugging method of tablet manufacture

7. Explain the methods to prepare ointments.

8. Explain the process of film coating of tablets.

9. Write a note on ocuserts.

10. Describe the formulation of emulsions.

11. Write a note on implants.

SHORT ANSWERS   **10 x 2 = 20 Marks**

12. Give the differences between flocculated and deflocculated suspension.
13. What is bloom strength?
14. Enlist jelling agents.
15. Write the advantages and disadvantages of sugar coating.
16. What is base adsorption factor?
17. What is dry granulation?
18. Define pyrogens.
19. Types of glass used in parenteral packaging.
20. What are the advantages of capsules over tablets?
21. Enlist natural emulsifying agents.

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Rajiv Gandhi University of Health Sciences, Karnataka

III Year Pharm-D Degree Examination – MAY 2015

Time: Three Hours   Max. Marks: 70 Marks

PHARMACOTHERAPEUTICS II
Q.P. CODE: 2883

Your answers should be specific to the questions asked
Draw neat, labeled diagrams wherever necessary

LONG ESSAYS (Answer any two)   **2 x 10 = 20 Marks**

1. TB – explain the etiology, classification, pathogenesis and management of tuberculosis.

2. CRF – explain in detail the pathophysiology and pharmacotherapy of CRF.

3. Breast cancer – write a note on basic principles of cancer therapy. Explain in detail the management of BC.

SHORT ESSAYS (Answer any six)   **6 x 5 = 30 Marks**

4. Write a note on guidelines for the rational use of antibiotics and surgical prophylaxis.

5. Write a note on renal dialysis.

6. Explain the life cycle of malaria with management of disease.

7. Explain the pathophysiology of meningitis.

8. Explain the management of chemotherapy nausea and emesis.

9. Write a note on drug induced renal failure.

10. Discuss the management of rheumatoid arthritis with their adverse effects.

11. Discuss in detail the management of HIV.

SHORT ANSWERS   **10 x 2 = 20 Marks**

12. Explain multidrug resistance TB.

13. Etiology and diagnosis of scabies

14. Mention the treatment for Psoriasis.

15. Explain clinical manifestations of Systemic Lupus Erythematosis.

16. Management of Urinary tract infection

17. Explain the management of upper respiratory tract infects.

18. Comment on role of diuretics in acute renal failure.

19. Define and write the etiology of Endocarditis.

20. Gout – etiology and signs and symptoms of gout

21. What is Dialysate and their composition?

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Rajiv Gandhi University of Health Sciences, Karnataka

IV Year Pharm-D/I Year Pharm-D (Post Baccalaureate) Degree Examination – MAY 2015

Time: Three Hours   **Max. Marks: 70 Marks**

PHARMACOTHERAPEUTICS I

Q.P. CODE: 2867

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

LONG ESSAYS (Answer any two)   **2 x 10 = 20 Marks**

1. Describe etiology, pathogenesis and treatment of Ischemic Heart Disease.

2. Explain the pathogenesis and pharmacotherapy of asthma.

3. Describe etiology, pathogenesis, signs and symptoms, diagnosis and pharmacotherapy of bacterial conjunctivitis.

SHORT ESSAYS (Answer any six)   **6 x 5 = 30 Marks**

4. Explain the pharmacotherapy of Hypertension in elderly patients with diabetes.

5. Explain drug induced pulmonary diseases and its management.

6. Explain the pathogenesis and treatment of COPD.

7. Explain essential drug concept and its relevance in drug therapy.

8. List out the differences between type 1 and type 2 diabetes mellitus.

9. Clinical features, diagnosis and treatment of hypothyroidism.

10. Write a note on pharmacotherapy of hyperlipidemia.

11. Describe the role of hormone replacement therapy in post menopausal women and its complications.

SHORT ANSWERS   **10 x 2 = 20 Marks**

12. List the different types of Angina pectoris.

13. What are the general prescribing guidelines for patients during pregnancy?

14. What is open angle glaucoma?

15. Importance of Essential drug concept.

16. Write the mechanism of action of nitrates and list outs its adverse effects.

17. ECG and its significance in Myocardial Infarction.

18. Role of digoxin in Congestive cardiac failure.

19. Risk factors for osteoporosis.

20. National drug policy.

21. Define Cor pulmonale.

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Rajiv Gandhi University of Health Sciences, Karnataka

IV Year Pharm-D (Post Baccalaureate) Examination - MAY 2015

Time: Three Hours   Max. Marks: 70 Marks

PHARMACOTHERAPEUTICS – II

Q.P. CODE: 2868

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

LONG ESSAYS (Answer any Two)   **2 x 10 = 20 Marks**

1. Describe etiopathogenesis, clinical manifestations and therapeutic management of Tuberculosis.
2. a) Define Osteoarthritis and mention the signs and symptoms and etiology of Osteoarthritis
   b) Write a note on pathophysiology and treatment of Osteoarthritis
3. Describe the pathophysiology, signs and symptoms and Pharmacotherapy of Systemic Lupus Erythmatosus.

SHORT ESSAYS (Answer any Six)   **6 x 5 = 30 Marks**

4. a) Define Syphillis
   b) Write a note on transmission and clinical manifestations of various forms of Syphillis
5. a) Define acute and chronic renal failure.
   b) Classify major causes of acute and chronic renal failure.
6. Classify the viral infections and write its causative agent, clinical manifestations and drug of choice for treatment
7. a) List out the various opportunistic infections associated with AIDS
   b) Classify the drugs used in therapy of AIDS with dosage
8. Explain the pathogenesis and pharmacotherapy of psoriasis
9. Explain the pathophysiology and pharmacotherapy of meningitis
10. Pharmacotherapy of rheumatoid arthritis
11. Explain the therapeutic management of fungal infections

SHORT ANSWERS   **10 x 2 = 20 Marks**

12. Write a note on risk factors for tuberculosis
13. Mention the symptoms of UTI
14. Pneumonia
15. What is cachexia?
16. Define nausea, vomiting, diarrhoea and constipation
17. Risk factors of chronic renal failure
18. Adverse effect of cancer chemotherapy
19. Enumerate the drugs used in treatment of malaria
20 Classify respiratory tract infections
21. Write notes on scabies

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Rajiv Gandhi University of Health Sciences, Karnataka

IV Year Pharm-D/I Year Pharm-D (Post Baccalaureate) Degree Examination – MAY 2015

Time: Three Hours   **Max. Marks: 70 Marks**

CLINICAL PHARMACY

Q.P. CODE: 2869

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

LONG ESSAYS (Answer any Two)   **2 x 10 = 20 Marks**

1. Define drug utilization evaluation (DUE). Describe the DUE cycle and mention the role of a clinical pharmacist in DUE.
2. Explain the steps involved in patient counseling process. Add a note on barriers to patient counseling.
3. Discuss the component and structure of patient case history and its significance in the assessment of patient drug therapy.

SHORT ESSAYS (Answer any Six)   **6 x 5 = 30 Marks**

4. Describe the components for the preparation of written and verbal reports.
5. Describe briefly about renal function test.
6. Describe activities to be carried out by clinical pharmacist and its significance.
7. Discuss the laboratory test used for the interpretation of hematological disorders.
8. Discuss about quality assurance services in clinical pharmacy.
9. Scope of pre-ward round participation in hospital.
10. Add a note on Electrolytes and its importance.
11. Discuss the Scope and development of clinical pharmacy emphasizing the current Indian scenario.

SHORT ANSWERS   **10 x 2 = 20 Marks**

12. Define post market surveillance.
13. Liver function test.
14. Types of drug related problems.
15. State the significance of monitoring thyroid hormone level.
16. Define the term Research literature.
17. Define the term Polypharmacy.
18. Enlist source of data for Drug use Evaluation in hospitals.
19. Define Evidence based medicine.
20. Enlist tertiary drug information resources and its advantages.
21. Mention the significance of cardiac enzymes testing.

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Rajiv Gandhi University of Health Sciences, Karnataka

IV Year Pharm-D/ I Year Pharm-D (Post Baccalaureate) Degree Examination – MAY 2015

Time: Three Hours   **Max. Marks: 70 Marks**

BIOSTATISTICS AND RESEARCH METHODOLOGY
Q.P. CODE: 2870

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

LONG ESSAYS (Answer any two)   **2 x 10 = 20 Marks**

1. What is sample size? Discuss briefly about determination of sample size for simple comparative experiments with suitable examples.

2. Describe the various types of measures of dispersion and their significance.

3. Discuss various steps involved in testing the significance of single mean and difference between two means (independent samples) in small samples using student's t-test.

SHORT ESSAYS (Answer any six)   **6 x 5 = 30 Marks**

4. How do you think the histograms, scatter plots, and semi-logarithmic plots are useful in presenting the data?

5. Write a note on randomization in clinical study.

6. Explain the uses of chi-square test by giving suitable examples.

7. Explain the applications of computers in patient medication profiles.

8. Define epidemiology. Write notes on incidence and prevalence.

9. Describe how mean is the most appropriate measure of centrality with suitable example?

10. Elucidate computerizing the prescription dispensing process.

11. The following data are obtained when comparing the newly developed analgesic drug with placebo. Find out whether there is a significant difference in pain reduction time of newly developed analgesic drug when compared with placebo. (Critical value is 2.776)

Person	1	2	3	4	5
Pain free time (in Seconds) for new drug	60	35	70	50	60
Pain free time (in Seconds) for Placebo	55	20	60	45	60

SHORT ANSWERS   **10 x 2 = 20 Marks**

12. Type I and Type II errors.

13. Difference between S.D and SEM.

14. Quantitative and qualitative variables.

15. What are the disadvantages of pie chart?

16. Confidence intervals.

17. Comparison of means between three or more distinct/independent groups which parametric and non parametric test can be used in inferential statistics?

18. Degree of freedom.

19. Define blinding in clinical study.

20. Define powder of a study.

21. What is correlation?

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Rajiv Gandhi University of Health Sciences, Karnataka

IV Year Pharm-D Degree (Post Baccalaureate) Examination – MAY 2015

Time: Three Hours   Max. Marks: 70 Marks

BIOPHARMACEUTICS AND PHARMACOKINETICS

Q.P. CODE: 2871

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

LONG ESSAYS (Answer any two)   **2 x 10 = 20 Marks**

1. What is compartment model? Differentiate between one compartment and two compartment model. Write a note on advantages & disadvantages of compartment modeling.

2. Discuss the kinetics of multiple dosing.

3. Define bioavailability. How is bioavailability estimated using urinary excretion data?

SHORT ESSAYS (Answer any six)   **6 x 5 = 30 Marks**

4. Discuss determination of apparent volume of distribution and its significance.

5. Write the different physiological factors affecting absorption.

6. Protocols of bioequivalence studies

7. Write a note on drug elimination.

8. What are the factors causing non-linearity?

9. Assessment of C_{max} and t_{max} on extra vascular administration following one compartment model

10. Differentiate between passive diffusion, active transport and facilitated transport.

11. Describe the pharmacokinetic factors used for designing dosage regimens.

SHORT ANSWERS   **10 x 2 = 20 Marks**

12. Significance of bioequivalence

13. Blood level curve for oral dose administration.

14. Relation between volume of distribution and clearance

15. Biological half-life

16. Endocytosis

17. Relative and absolute bioavailability

18. Represent plasma drug level concentration in a multiple dose regimen

19. What is flip-flop phenomenon?

20. Fluid mosaic model

21. What is minimum effective concentration?

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Rajiv Gandhi University of Health Sciences, Karnataka

IV Year Pharma-D Degree (Post Baccalaureate) Examination – MAY 2015

Time: Three Hours   **Max. Marks: 70 Marks**

CLINICAL TOXICOLOGY

Q.P. CODE: 2872

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

LONG ESSAYS   **2 x 10 = 20 Marks**

1. Define and explain about various parameters involved in toxicokinetics.

2. Explain the clinical symptoms and management of acute poisoning with barbiturates and benzodiazepines.

3   Describe the clinical symptoms and management of chronic poisoning with arsenic and mercury.

SHORT ESSAYS (Answer any Six)   **6 x 5 = 30 Marks**

4. Explain the general principles involved in the management of poisoning.

5. Give a short note on role of supportive care in toxicology.

6. Explain the clinical symptoms and management of acute poisoning with organophosphorous compounds.

7. Explain the clinical symptoms and management of acute poisoning with Paracetamol.

8. Enumerate the clinical symptoms and management of acute poisoning with radiation poisoning.

9. Write a short note on clinical effects of snake venoms.

10. Write a short note on food poisonings.

11. Explain the signs and symptoms of substance abuse and treatment of dependence with opioids.

SHORT ANSWERS   **10 x 2 = 20 Marks**

12. Define and classify antidotes.

13. Management of scorpion bite

14. Management of tobacco abuse

15. Signs and symptoms of acid injury.

16. Clinical effects of carbamates

17. Classify different types of venomous snakes.

18. Clinical symptoms of salicylism

19. Clinical effects of methanol poisoning

20. Management of Iron poisoning

21. Signs and symptoms of poisoning with PEG

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Rajiv Gandhi University of Health Sciences, Karnataka

IV Year Pharm-D/I Year Pharm-D (Post Baccalaureate) Degree Examination – MAY 2015

Time: Three Hours   **Max. Marks: 70 Marks**

PHARMACOTHERAPEUTICS-I & II

Q.P. CODE: 2879

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

LONG ESSAYS (Answer any two)   **2 x 10 = 20 Marks**

1. Classify congestive heart failure based on its functional status and explain its pathophysiology and pharmacotherapy.
2. Explain the etiology, pathophysiology, criteria for diagnosis and management of Rheumatoid arthritis.
3. Describe the general principles of chemotherapy. Explain the etiology and management of breast cancer.

SHORT ESSAYS (Answer any six)   **6 x 5 = 30 Marks**

4. Explain the etiology of acute renal failure.
5. Differentiate type-1 and type-2 diabetes mellitus.
6. Write a note on Systemic lupus erythematosus.
7. Write a note on impact of HAART on opportunistic infections.
8. Explain the pharmacotherapy of Eczema.
9. Write a note on oral contraceptives.
10. Discuss the treatment of tuberculosis in special population/circumstances.
11. Explain the role of pharmacist in rational drug use.

SHORT ANSWERS   **10 x 2 = 20 Marks**

12. PUVA therapy
13. Cytomegalovirus.
14. Clinical presentation of Emphysema.
15. FEV_1 and ratio of FEV_1/FEV.
16. Thyrotoxicosis.
17. BCG vaccine.
18. Significance of ECG.
19. BCR gene and ABL gene.
20. Impetigo.
21. Adverse effects of chemotherapeutic agents.

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Rajiv Gandhi University of Health Sciences, Karnataka

IV & V Year Pharm-D Post Baccalaureate Degree Examination - MAY 2015

Time: Three Hours   **Max. Marks: 70 Marks**

PHARMACOTHERAPEUTICS-III

Q.P. CODE: 2880

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

LONG ESSAYS   **2 x 10 = 20 Marks**

1. Explain sign, symptoms and pharmacotherapy of viral hepatitis.

2. Mention types of hematological disorders. Explain pharmacotherapy for any two.

3. Explain etiology, pathogenesis and treatment of schizophrenia.

SHORT ESSAYS   **6 x 5 = 30 Marks**

4. Write the clinical presentation and treatment of obsessive compulsive disorder.

5. Explain signs, symptoms and treatment of Parkinsonism.

6. Pharmacotherapy of headaches.

7. Explain causes, sign and symptoms and treatment of Depression.

8. Etiology, pathogenesis and pharmacotherapy of IBD.

9. Role of pharmacist in evidence based medicine.

10. Clinical management of peptic ulcer.

11. Pharmacotherapy of neuralgia.

SHORT ANSWERS   **10 x 2 = 20 Marks**

12. Anxiety disorders.
13. Classification of epilepsy.
14. Enlist types of anaemia.
15. Alcoholic liver disease
16. Gastro Esophageal Reflux disease
17. Types of pain
18. Clinical presentation of stroke
19. Liver functions tests.
20. Narcolepsy.
21. Enlist any four drugs which induces liver disorders.

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Rajiv Gandhi University of Health Sciences, Karnataka

IV Year Pharm-D/I Year Pharm-D (Post Baccalaureate) Degree Examination – MAY 2015

Time: Three Hours

Max. Marks: 70 Marks

HOSPITAL AND COMMUNITY PHARMACY

Q.P. CODE: 2881

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

LONG ESSAYS (Answer any two)   **2 x 10 = 20 Marks**

1. Write the composition, objectives and functions of pharmacy and therapeutic committee.
2. What is pain? Explain the pathophysiology and common drug therapy used for the treatment of pain.
3. What is the significance of inventory control in community pharmacy? Describe various methods of inventory control with its advantages and disadvantages.

SHORT ESSAYS (Answer any six)   **6 x 5 = 30 Marks**

4. Code of ethics in community Pharmacy.
5. Discuss the legal requirements to set up a community Pharmacy.
6. Define patient counseling. What are the various strategies to overcome its barriers?
7. Write the functions of research and ethics committee.
8. Write the objectives and functions of central sterile service department in the hospital.
9. Explain the handling and packaging of radiopharmaceuticals.
10. List various methods of continuous professional development and explain in brief about any one method update the professional knowledge.
11. Explain the interrelationship of hospital pharmacy department with other hospital departments.

SHORT ANSWERS   **10 x 2 = 20 Marks**

12. Prevention of worm infestations.
13. Briefly mention the various registers to be maintained in a community pharmacy.
14. Define "Hospital pharmacy".
15. What is floor stock method of drug distribution?
16. Write the basic formula of total parentral nutrition.
17. Use of business and health software in the community pharmacy management.
18. Pyrexia of unknown origin.
19. Define "community pharmacy".
20. Dispensing of emergency drugs.
21. What are the advantages of a pharmacy bulletin?

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Rajiv Gandhi University of Health Sciences, Karnataka

V Year Pharma-D/ II Year Pharm-D (Post Baccalaureate) Degree Examination – MAY 2015

Time: Three Hours   **Max. Marks: 70 Marks**

PHARMACOTHERAPEUTICS III

Q.P. CODE: 2873

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

LONG ESSAYS(Answer any two)   **2 x 10 = 20 Marks**

1. Enlist various types of anaemia. Describe signs and symptoms, diagnostic tests and therapy for any two.
2. Discuss the different types of seizures. Explain pharmacotherapeutic approach to treat epilepsy.
3. Enlist various types of sleeping disorders. Describe signs and symptoms, diagnosis and therapy for narcolepsy.

SHORT ESSAYS (Answer any six)   **6 x 5 = 30 Marks**

4. Signs, symptoms and Pharmacotherapy of ischemic stroke.
5. Clinical features, diagnosis and treatment of Parkinson's disease.
6. Pharmacotherapy of generalized anxiety disorder.
7. Etiology, pathogenesis and Pharmacotherapy of Hepatitis B.
8. Drug induced blood disorders (any 5).
9. Etiology, pathogenesis and Pharmacotherapy of GERD.
10. Explain the role of Iron and Ascorbic acid in Anaemia.
11. Explain signs and symptoms, and treatment of venous thromboembolism.

SHORT ANSWERS   **10 x 2 = 20 Marks**

12. Treatment goals for Peptic ulcer disease.
13. Definition of Somnambulism.
14. Define Panic attack and obsessive compulsive disorders.
15. Liver function tests.
16. Types of pain.
17. Symptoms of Depression.
18. Explain invasive and noninvasive tests for H. pylori.
19. Mention any 4 drugs which induce Aplastic anaemia.
20. Mention positive and negative symptoms of schizophrenia.
21. Mention any 4 drugs used in treatment of IBD.

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Rajiv Gandhi University of Health Sciences, Karnataka

pV Year Pharma-D (Post Baccalaureate) Degree Examination – MAY 2015

Time: Three Hours   **Max. Marks: 70 Marks**

CLINICAL RESEARCH

Q.P. CODE: 2874

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

LONG ESSAYS (Answer any two)   **2 x 10 = 20 Marks**

1. With the schematic representation of drug research process, explain in detail the various phases of clinical trials

2. Explain in detail the formulation development process during drug discovery and lead optimization

3. Explain the roles and responsibilities of an investigator and sponsor as per ICH-GCP

SHORT ESSAYS (Answer any six)   **6 x 5 = 30 Marks**

4. Give the ethical guidelines in Clinical Research

5. Give an overview of regulatory environment in Europe

6. Discuss the application of pharmacokinetics in drug discovery

7. Explain CDSCO guidelines

8. Discuss the roles and responsibilities of contract research coordinators

9. Discuss the methods of post – marketing surveillance

10. Explain the contents of Investigational New Drug Application (INDA).

11. Discuss the guidance documents required to prepare Abbreviated New Drug Application (ANDA).

SHORT ANSWERS   **10 x 2 = 20 Marks**

12. Define "Orange Book" and "Drug Master File"

13. Give a short note on multicenter clinical trials

14. Explain the goals of Good Clinical Practice (GCP).

15. What are Cohort Studies

16. Explain the role of contract research associate

17. Describe an informed consent form (ICF)

18. ADR monitoring

19. Define maximum recommended starting dose (MRSD) and no observed adverse effect level (NOAEL)

20. Importance drug safety measurements in pharmacological studies

21. What are the benfits and risks of participating in a clinical trial?

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Rajiv Gandhi University of Health Sciences, Karnataka

V Year Pharma-D Degree Examination – MAY 2015

Time: Three Hours   Max. Marks: 70 Marks

PHARMACOEPIDEMIOLOGY AND PHARMACOECONOMICS
Q.P. CODE: 2875

Your answers should be specific to the questions asked
Draw neat, labeled diagrams wherever necessary

LONG ESSAYS (Answer any two)   **2 x 10 = 20 Marks**

1. What is medication adherence? Explain the methods used to assess medication adherence.

2. Identify and explain the two major pharmacoepidemiological models used to test the relationship between drug exposure and patient outcomes.

3. Explain the application of pharmacoeconomics.

SHORT ESSAYS (Answer any six)   **6 x 5 = 30 Marks**

4. What is Markov model? Explain the features.

5. What is decision tree? With an example, explain the use of decision tree in clinical decision analysis.

6. Describe the steps involved in formulating a study design in pharmacoepidemology.

7. What are the requirements of an ideal database? Write the strength and weakness of automated databases.

8. Identify two common statistics used to describe the relationship between drug exposure and outcomes.

9. Explain CMA and give its applications.

10. Explain the benefits and limitations of a automated databases.

11. Describe a typical DUE cycle.

SHORT ANSWERS   **10 x 2 = 20 Marks**

12. Describe spontaneous reporting systems.

13. What is QALY?

14. Give the advantage of cohort study.

15. What is ICER and ACER?

16. List meta analysis models.

17. Define pharmacoeconomics and outcomes research.

18. Define prevalence and incidence.

19. Define "defined daily dose" and "prescribe daily dose".

20. Give examples of intangible cost involved in pharmacoeconomic study.

21. Define monetary units.

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Rajiv Gandhi University of Health Sciences, Karnataka

V Year Pharma-D Post Baccalaureate Degree Examination – MAY 2015

Time: Three Hours   **Max. Marks: 70 Marks**

CLINICAL PHARMACOKINETICS & THERAPEUTIC DRUG MONITORING

Q.P. CODE: 2876

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

LONG ESSAYS (Answer any two)   **2 x 10 = 20 Marks**

1. Discuss the importance of genetic polymorphism of cytochrome P-450 isozymes on drug metabolism with suitable examples.
2. Explain in detail the general approaches for dosage adjustment in renal diseases.
3. Define nomograms. Explain their application in pharmacokinetic studies with examples. Add a note on their merits and demerits.

SHORT ESSAYS (Answer any six)   **6 x 5 = 30 Marks**

4. Define and explain pharmacokinetic drug interactions with examples.
5. Discuss NONMEM method.
6. Discuss the effect of hepatic diseases on pharmacokinetics of a drug.
7. Explain dosage adjustment in pediatric patients.
8. Explain why TDM for digoxin is necessary.
9. How is Glomerular Filtration Rate (GFR) determined?
10. Explain the protocol for therapeutic drug monitoring of a drug.
11. Discuss the factors to be considered during the design of dosage regimen.

SHORT ANSWERS   **10 x 2 = 20 Marks**

12. Explain the role of enzyme inhibition in drug interactions.
13. Dosage adjustment is necessary in obese patients. Why?
14. Calculate the creatinine clearance for a 23 year old male patient with Serum Creatinine of 1.2 mg/dl. The patient is 5 ft. 5 inches in height and weighs 98 kgs.
15. List different liver enzymes and their significance.
16. What is intrinsic clearance of drugs?
17. Enumerate the reasons for converting IV dose to oral dose.
18. Define pharmacogenetics.
19. Draw a typical plot of pharmacologic response vs drug dose and explain.
20. What is dosing with feedback?
21. How is drug dose determined?

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