

Registration No :

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Total Number of Pages : 01

B.Pharm
PH.5.3

5th Semester Back Examination 2019-20

APPLIED MICROBIOLOGY

BRANCH : B.Pharma

Time : 3 Hours

Max Marks : 70

Q.CODE : HB215

Answer Question No.1 which is compulsory and any FIVE from the rest.
The figures in the right hand margin indicate marks.

- Q1 Answer the following questions :** (2 x 10)
- a) What are plasmids?
 - b) Classify bacteria according to their morphological shapes with examples.
 - c) Write the functions of Mesosomes in Gram positive bacteria.
 - d) Write briefly about protoplast fusion.
 - e) What is the difference between TDT and TDP?
 - f) What is cold sterilization? Write few applications of cold sterilization.
 - g) Moist heat is more effective than dry heat for sterilization- comment
 - h) Differentiate Gram positive and Gram negative cell wall.
 - i) What do you mean by decimal reduction time (D_{121})?
 - j) What are the control tests employed in test for sterility? Give their importance.
- Q2**
- a) Write about structure & morphological features of a bacterial cell with a neat labeled diagram. (5)
 - b) Describe the normal growth curve of bacteria by depicting a typical growth curve. (5)
- Q3**
- a) What the different methods used for isolation of pure cultures? Describe in detail the "Pour plate" technique with its merits & demerits. (5)
 - b) Give a brief note on methods used for preservation of pure cultures (5)
- Q4**
- a) Write a brief note on structure and Morphology of virus. Describe with diagram lytic and lysogenic cycle in virus. (5)
 - b) What is mutation? Write about Mutagens and give a brief note on induced mutation. (5)
- Q5**
- a) What is sterilization? Classify different methods of sterilization. Give a brief note on working principle and construction of autoclave. (5)
 - b) What are the different methods used for evaluation of disinfectants? Explain phenol-coefficient method. (5)
- Q6** (10)
- What is the principle of sterility testing? Describe about the general methods used for sterility testing of pharmaceuticals. Give a note on how Inactivation of inhibitory substances carried out during sterility testing
- Q7** (10)
- Write the principle involved in the microbiological assay of antibiotics and vitamins. Describe the method used for microbial assay of tetracycline as per I.P.
- Q8 Write short answer on any TWO :** (5 x 2)
- a) Transduction
 - b) Isolation of pure cultures
 - c) Gram's staining techniques.

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Total Number of Pages : 01

B.Pharm
BP502T

5th Semester Regular Examination 2019-20
INDUSTRIAL PHARMACY-I THEORY
BRANCH : B.Pharma
Max Marks : 75
Time : 3 Hours
Q.CODE : HR152

Answer Question No.1 (Part-A) and 02 (Part-B) which are compulsory and any TWO from Part-C.

The figures in the right hand margin indicate marks.

Part- A

- Q1 Only Short Answer Type Questions (Answer All-10) (2 x 10)**
- a) State polymorphism and its significance.
 - b) How flow properties affect design of solid dosages form?
 - c) Write any two identification tests of emulsion.
 - d) Define tablet and give some examples of granulating agent.
 - e) Mention any two manufacturing defects of tablet.
 - f) In syrup preparation needs of preservative is essential or not. Justify.
 - g) Write any two evaluation parameters of suspension.
 - h) Give some examples of non-aqueous solvent used in parenteral formulations.
 - i) Define propellant. Give some examples of it.
 - j) Write any two differences between cold cream and vanishing cream.

Part- B

- Q2 Only Focused-Short Answer Type Questions- (Answer Any Eight out of Twelve) (5 x 7)**
- a) Write BCS classification of drugs and its significance?
 - b) State and explain solubility profile related to PH & PKa value.
 - c) Write about in general requirements of tablet formulation.
 - d) Differentiate between hard gelatin & soft gelatin capsule. Which capsule number is largest capacity for powder filling?
 - e) Write details about pyrogen and sterility test of parenteral formulation.
 - f) Define Lipsticks. Write about formulation of it.
 - g) State and write briefly different steps of ophthalmic preparation.
 - h) Differentiate between flocculated and de-flocculated suspension
 - i) Why tablet requires coating? Explain details about sugar coating.

Part-C

- Only Long Answer Type Questions (Answer Any Two out of Four)**
- Q3 What is a pre-formulation study? Discuss in details about pre-formulation goal, objectives and physico-chemical properties of drug substance. (10)**
- Q4 Define compression of powders. Write different methods of preparation of tablets (10)**
- Q5 Explain details about formulation of parenteral preparation. (10)**
- Q6 What is Aerosol? Discuss details about formulation, manufacture and any two evaluations. (10)**

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Total Number of Pages : 02

B.Pharm
15PH502

5th Semester Back Examination 2019-20

MEDICINAL CHEMISTRY-I

BRANCH : B.Pharma

Max Marks : 100

Time : 3 Hours

Q.CODE : HB151

Answer Question No.1 (Part-1) which is compulsory, any EIGHT from Part-II and any TWO from Part-III.

The figures in the right hand margin indicate marks.

Part- I

Q1 Only Short Answer Type Questions (Answer All-10) : (2 x 10)

- Write down the synthesis of Paracetamol.
- What do you mean by partition coefficient?
- Write down any two anticholinesterase drugs and mention their uses.
- Write down the structure and uses of Clonidine.
- Write down the structure and uses of Salbutamol and Propranolol.
- Mention the uses and structure of Chlorocyclizine and Ranitidine.
- Write down the structure and uses of Dicyclomine.
- What is Free Wilson model?
- Give one example of H₂-receptor antihistamine. Write its structure and uses.
- What is loop diuretic? Mention its chemical name with structure.

Part- II

Q2 Only Focused-Short Answer Type Questions- (Answer Any Eight out of Twelve) (6 x 8)

- What is the causative agent for amoebic dysentery? Outline the synthesis of Metronidazole and Diloxanide furoate.
- Discuss the effects of optical isomerism on biological activity. Justify with suitable examples.
- Write a note on anthelmintic.
- Define adrenergic drugs, classify it. Write down the synthesis and uses of Adrenaline.
- Outline the synthesis of Carbachol and Neostigmine.
- Discuss briefly on Hansch analysis and the different parameters involved in quantitative description of drug action.
- What are eicosanoids? Write down their occurrences and medicinal application.
- Write down a note on diagnostic agents.
- Classify the cardio vascular drugs with examples and outline the synthesis of Methyldopa.
- Define cholinergic drugs. Classify it with suitable examples. Write down the SAR of Acetylcholine.
- Mention the causative agents of TB and Leprosy. Outline the synthesis of INH and Ethambutol.
- Write down a note on neuromuscular blocking agents.

Part-III

Only Long Answer Type Questions (Answer Any Two out of Four)

- Q3** Define the term analgesic, antipyretics and anti-inflammatory agents. Classify NSAID with suitable examples. Write down the synthesis, mode of action and uses of Ibuprofen and Diclofenac Sodium. **(16)**
- Q4** Define Diuretics. Classify it with suitable examples. Write down the SAR of thiazide groups and outline the synthesis of Chlorothiazide and Acetazolamide. **(16)**
- Q5** Define Antihistamine. Classify it with suitable examples. Write down the SAR of H₁-receptor blockers. Write down the synthesis and uses of Diphenhydramine and Promethazine. **(16)**
- Q6** What is bioisosterism? Classify it. Write down the importance of bioisosterism in medicinal chemistry. **(16)**

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Total Number of Pages : 02

B.Pharm
BP501T

5th Semester Regular Examination 2019-20

MEDICINAL CHEMISTRY II – THEORY

BRANCH : B.Pharma

Max Marks : 75

Time : 3 Hours

Q.CODE : HR061

Answer Question No.1 (Part-A) and 02 (Part-B) which are compulsory and any TWO from Part-C.

The figures in the right hand margin indicate marks.

Part- A

Q1 Only Short Answer Type Questions (Answer All-10) (2 x 10)

- a) Write down the structure, mechanism of action and uses of Nifedipine.
- b) Write down the structure and uses of Betamethasone.
- c) Name two plant products used in the treatment of cancer.
- d) Write down two thiazolidinedione derivative used in hyperglycemia.
- e) Write down the structure, mechanism action and uses of Lovastatin.
- f) What is loop diuretic? Mention its chemical name with structure.
- g) Name two drugs used in erectile dysfunction.
- h) What do you mean by PPI? Write down the structure, mechanism of action and uses of Pantoprazole.
- i) Write down the structure uses and nomenclature of Methimazole.
- j) Give the structure nomenclature and uses of 5-Fluorouracil.

Part- B

Q2 Only Focused-Short Answer Type Questions- (Answer Any Eight out of Twelve) (5 x 7)

- a) Write a note on Insulin and its preparation.
- b) Define and classify antihypertensive agents. Outline the synthesis, mechanism of action and uses of Methyldopa.
- c) Define Antihistamine. Write down the synthesis and uses of Cimetidine.
- d) What do you mean by congestive heart failure? Mention its treatment.
- e) Define antiarrhythmic agents. Write down the synthesis, mechanism of action and uses of Disopyramide phosphate.
- f) Write notes on oral contraceptives.
- g) Classify the alkylating agents with suitable examples. Write down the mechanism of action of it.
- h) Classify oral hypoglycemic agent with suitable examples. Outline the synthesis and mechanism of action of Tolbutamide.
- i) Define anticoagulants. Write down the synthesis, mechanism of action and uses of Warfarin.

Part-C

Only Long Answer Type Questions (Answer Any Two out of Four)

- Q3** Define Diuretics. Classify it with suitable examples. Write down the SAR of thiazide groups and outline the synthesis of Chlorothiazide and Acetazolamide. **(10)**
- Q4** Discuss the nomenclature and stereochemistry of steroids with suitable examples. **(10)**
- Q5** Classify antihistamine with suitable examples. Write down the SAR of H₁-receptor blockers. Write down the synthesis and uses of Diphenhydramine and Promethazine. **(10)**
- Q6** Define and classify local anaesthetics. Discuss the SAR of local anaesthetics. Outline the synthesis and uses Procaine and Dibucaine. **(10)**

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Total Number of Pages : 01

B.Pharm
PH.5.9

5th Semester Back Examination 2019-20

PHARM. ANALYSIS - II

BRANCH : B.Pharma

Time : 3 Hours

Max Marks : 70

Q.CODE : HB448

Answer Question No.1 which is compulsory and any FIVE from the rest.
The figures in the right hand margin indicate marks.

- Q1** Answer the following questions : (2 x 10)
- a) Define internal indicator.
 - b) What is 100% current efficiency?
 - c) Define a digestion and distillation?
 - d) Give the composition of KF Reagent.
 - e) What is a stabilizing medium? Give examples.
 - f) What is oxidation number?
 - g) Define Ilkovic equation.
 - h) Give significance of Kjeldahl method.
 - i) Give examples of different electrodes used in potentiometry.
 - j) Enumerate the advantages conductometric titration.
- Q2** a) Draw a neat labeled diagram of Standard Hydrogen Electrode and explain its working principle. (5)
- b) Write about the different types of absorption liquids used in oxygen flask gasometry. (5)
- Q3** What is Nephelometry? Explain the construction, working and pharmaceutical applications of a Nepheloturbidimeter. (2+8)
- Q4** Describe the determination of two drugs using diazotization followed by coupling method. (10)
- Q5** Explain the principle and procedure involved in Karl Fishers titration. (10)
- Q6** a) Write about preparation and standardization of 0.1N KMnO₄ solution. (5)
- b) Write about the principle & procedure involved in assay of hydrogen peroxide. (5)
- Q7** a) What is iodometry? Enumerate the ideal conditions for an iodometric titration. (5)
- b) Draw a neat labeled diagram of Silver-Silver chloride Electrode and explain its working principle. (5)
- Q8** What is conductometry? Describe the different types of conductometry. Draw and explain the instrumentation and working of a conductometric cell. (2+4+4)

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Total Number of Pages : 01

B.Pharm
BP505T

5th Semester Regular Examination 2019-20
PHARMACEUTICAL JURISPRUDENCE – THEORY

BRANCH : B.Pharma

Max Marks : 75

Time : 3 Hours

Q.CODE : HR378

Answer Question No.1 (Part-A) and 02 (Part-B) which are compulsory and any TWO from Part-C.

The figures in the right hand margin indicate marks.

Part- A

- Q1 Only Short Answer Type Questions (Answer All-10) (2 x 10)**
- a) Write the function of Drug Consultative Committee?
 - b) What do you mean by MAPE?
 - c) Define Bonded and Non-bonded laboratory?
 - d) Differentiate drug store and Pharmacy?
 - e) Name the two government opium factory in India?
 - f) Write the objectives of DPCO?
 - g) Name four types of Psychotropic substances?
 - h) Write the warning statement written on the labeling of Ophthalmic product?
 - i) Give the legal definition of Spurious and Misbranded drugs?
 - j) Define schedule "P" and schedule "J" drugs?

Part- B

- Q2 Only Focused-Short Answer Type Questions- (Answer Any FIVE out of SEVEN) (5 x 7)**
- a) Calculation of retail price as per DPCO?
 - b) Write short note on DTAB?
 - c) Write the qualification and duties of Government analyst?
 - d) Write a short note on loan license?
 - e) Write short notes on experimentation on animal (as per prevention of Cruelty to animal act)?
 - f) Write in details about Licensing authority?
 - g) Write the qualification and duties of Drug inspector?
 - h) Define advertisement? List out the different types of prohibited type according to Drug and Magic remedies (Objectionable advertisement) Act and Rule?
 - i) What is Drug Inquiry Committee? What are the recommendation were given in that committee?

Part-C

- Q3 Only Long Answer Type Questions (Answer Any TWO out of FOUR) (10)**
- What is code of Pharmaceutical ethics? Discuss the detail about code of Pharmaceutical ethics of a Pharmacist in relation to his Job and Trade?
- Q4 (10)** Discuss the different features of Medical Termination of Pregnancy Act and the rules under the act?
- Q5 (10)** What are narcotic drugs? Discuss the NDPS act in brief. What are the penalties for committing an offence under the act?
- Q6 (10)** What are the significant features of Pharmacy act? Write the constitution and function of PCI? Give a short note about State Pharmacy Council?

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B.Pharm
15PH501

5th Semester Back Examination 2019-20
PHARMACEUTICS-II(PHARMACEUTICAL TECHNOLOGY - I)
BRANCH : B.Pharma
Max Marks : 100
Time : 3 Hours
Q.CODE : HB060

Answer Question No.1 (Part-1) which is compulsory, any EIGHT from Part-II and any TWO from Part-III.

The figures in the right hand margin indicate marks.

Part- I

- Q1 Only Short Answer Type Questions (Answer All-10) (2 x 10)**
- Define preformulation. Write its objectives?
 - What is intrinsic solubility? Write its importance in preformulation study.
 - Define common ion effect. Write its significance
 - What is creaming and cracking of emulsion?
 - Write down about displacement value.
 - Differentiate between paste and creams.
 - Differentiate between hard gelatin and soft gelatin capsules.
 - What is suspending agent? Write two examples of suspending agent.
 - Define superdisintegrants. Give two examples.
 - Differentiate between glidant and lubricant with suitable examples.

Part- II

- Q2 Only Focused-Short Answer Type Questions- (Answer Any Eight out of Twelve) (6 x 8)**
- Write briefly about coating defects of tablet.
 - Discuss sugar coating process.
 - Write the mechanism of drug permeation through skin.
 - Write down the formulation of suspension.
 - Explain briefly about different additives used in tablet formulation.
 - Explain pH solubility profile.
 - Describe stability tests of emulsion.
 - Discuss the manufacturing processes of soft gelatin capsules.
 - Enlist the preformulation study protocol.
 - Give a short note on evaluation tests of suppository.
 - Write notes on partition coefficient.
 - Discuss the process variables in film coating of tablet.

Part-III

- Q3 Only Long Answer Type Questions (Answer Any Two out of Four) (16)**
- Discuss the role of various additives in the formulation of monophasic liquid dosage forms.
- Q4 (16)** Describe various methods of preparation and evaluation of tablet.
- Q5 (16)** Discuss ointment bases. Describe the method of preparation and evaluation of ointment.
- Q6 (16)** Define capsule? Describe the production and quality control of hard gelatin capsule.

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B.Pharm
15PH505

5th Semester Back Examination 2019-20

PHARMACOGNOSY-III

BRANCH : B.Pharma

Max Marks : 100

Time : 3 Hours

Q.CODE : HB272

Answer Question No.1 (Part-1) which is compulsory, any EIGHT from Part-II and any TWO from Part-III.

The figures in the right hand margin indicate marks.

Part-I

- Q1** **Only Short Answer Type Questions (Answer All-10)** **(2 x 10)**
- a) Write the biological source of Papain.
 - b) Define Tissue culture.
 - c) State some examples of Proteolytic enzyme.
 - d) What is the biological source of Ginseng?
 - e) What are the vitamins used in the preparation of nutrient media?
 - f) What are the chemical constituents of Dioscorea?
 - g) Define Marine Pharmacognosy.
 - h) Write the Chemical constituents and uses of Chirata.
 - i) State the chemical constituents and uses of Rhubarb.
 - j) What is the biological source and uses of Squill?

Part-II

- Q2** **Only Focused-Short Answer Type Questions- (Answer Any Eight out of Twelve)** **(6 x 8)**
- a) Write the Biological source, Chemical constituents and Uses of Psoralea.
 - b) Explain the biogenesis of Steroidal glycoside.
 - c) Write about Basic metabolic pathway.
 - d) Describe details about Nutraceuticals with examples.
 - e) Illustrate the applications of Plant tissue culture.
 - f) Write the Biological source, Chemical constituents and Uses of Senna.
 - g) Describe the Biological source, Chemical constituents and Uses of Aloes.
 - h) Write notes on Poisonous plants of India.
 - i) Mention the Biological source, Chemical constituents and Uses of Liquorice.
 - j) Write Biological source, Preparation, Identification test and Uses of Pepsin.
 - k) Explain about the Biological source, Chemical constituents and Uses of Gentian.
 - l) Illustrate the biosynthetic study of Aromatic amino acid.

Part-III

- Q3** **Only Long Answer Type Questions (Answer Any Two out of Four)** **(8+8)**
- Describe the detail Pharmacognosy of Digitalis. Write about the general methods of isolation of Glycosides.
- Q4** Explain in details about historical development and different types of Plant tissue culture. **(16)**
- Q5** Write the biosynthetic study of Tropane alkaloid and Indole alkaloid. **(16)**
- Q6** Enumerate Biological source, Preparation, Identification test and Uses of Diastase and Trypsine. **(16)**

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Total Number of Pages : 01

B.Pharm
BP504T

5th Semester Regular Examination 2019-20
PHARMACOGNOSY AND PHYTOCHEMISTRY II- THEORY
BRANCH : B.Pharma

Max Marks: 75

Time : 3 Hours

Q.CODE : HR273

Answer Question No.1 (Part-A) and 02 (Part-B) which are compulsory and any TWO from Part-C.

The figures in the right hand margin indicate marks.

Part-A

- Q1 Only Short Answer Type Questions (Answer All-10) (2 x 10)**
- a) Write the biological source and uses of Liquorice.
 - b) Define Glycoside.
 - c) Write the therapeutic uses of Aloes.
 - d) State about basic metabolic pathway?
 - e) What are the biosources and chemical constituents of Ginger?
 - f) Write the general properties of resins.
 - g) Write the biological source and therapeutic uses of Mentha.
 - h) Define isolation.
 - i) What are the biological source and uses of Rauwolfia?
 - j) State about secondary metabolites.

Part-B

- Q2 Only Focused-Short Answer Type Questions- (Answer Any FIVE out of SEVEN) (5 x 7)**
- a) Write the biosynthetic study of amino acid pathway.
 - b) Explain the isolation and identification of Rutin.
 - c) Write the chemical classification of tannin with examples.
 - d) Write the therapeutic applications of Fennel and Gentian.
 - e) Illustrate the identification and analysis of Podophyllotoxin.
 - f) Explain the biosources, chemistry and commercial applications of Tea.
 - g) Illustrate the principle of electrophoresis in the isolation of crude drugs.
 - h) What are the applications of Spectroscopy?
 - i) Explain the utilization of radioactive isotopes in the investigation of biogenesis.

Part-C

- Q3 Only Long Answer Type Questions (Answer Any TWO out of FOUR) (10)**
Describe industrial production, estimation and utilization of Caffeine.
- Q4 (10)**
Discuss in detail about the isolation, identification and utilization of Atropine.
- Q5 (10)**
Write the general introduction of alkaloids. Discuss the biological sources, Chemical composition, therapeutic uses and commercial applications of Belladonna.
- Q6 (10)**
Describe the general properties of volatile oil. Write the detailed Pharmacognostic study of Clove.

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Total Number of Pages : 01

B.Pharm
PH.5.7

5th Semester Back Examination 2019-20

PHARMACOLOGY - I

BRANCH : B.Pharma

Time : 3 Hours

Max Marks : 70

Q.CODE : HB379

Answer Question No.1 which is compulsory and any FIVE from the rest.
The figures in the right hand margin indicate marks.

- Q1 Answer the following questions :** **(2 x 10)**
- a) What is prodrug? Give two examples of it.
 - b) Write the mechanism of action of Phenytoin sodium.
 - c) Give any two examples of Skeletal muscle relaxants.
 - d) Define bioavailability and mention its significance.
 - e) Write the advantages of oral route of administration.
 - f) Define placebo. Mention its significance.
 - g) Give any two examples of Antidepressants.
 - h) What is sedative? Write two examples of it.
 - i) Define the mechanism of action of Local anaesthesia
 - j) Write the uses of aspirin.
- Q2 a) Write the Classification of drugs used in Parkinsonism.** **(5)**
- b) Describe the process of Neurohumoral transmission.** **(5)**
- Q3 a) Write the Pharmacological actions of acetylcholine.** **(5)**
- b) What is sedative? Write the classification of drugs with examples.** **(5)**
- Q4 a) Write various types of cholinergic receptor with their location** **(5)**
- b) Give a short note on cholinesterase inhibitors.** **(5)**
- Q5 a) Describe about various types of routes of administration of drug.** **(5)**
- b) Write the pharmacological actions of morphine.** **(5)**
- Q6 Define and classify receptors. Describe Ion channel receptor mediated** **(10)**
- mechanism of action of drugs with examples.**
- Q7 Define and classify NSAIDs. Write the pharmacological action and uses of** **(10)**
- aspirin.**
- Q8 Write short Notes on any TWO :** **(5 x 2)**
- a) Classification of Adrenergic agonist according to uses.
 - b) Classification of Anticholinergic drugs.
 - c) Factors affecting absorption of drugs

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Total Number of Pages : 01

B.Pharm
BP503T

5th Semester Regular Examination 2019-20

PHARMACOLOGY II – THEORY

BRANCH : B.Pharma

Max Marks : 75

Time : 3 Hours

Q.CODE : HR214

Answer Question No.1 (Part-A) and 02 (Part-B) which are compulsory and any TWO from Part-C.

The figures in the right hand margin indicate marks.

Part- A

- Q1** **Only Short Answer Type Questions (Answer All-10)** **(2 x 10)**
- a) Write any two 5HT receptor antagonist with their uses.
 - b) Name any two anti-platelet drugs and their uses.
 - c) Define haematinics. Write any two oral iron preparations with their uses.
 - d) Name any two antidiuretics. Mention their uses.
 - e) What are fibrinolytics? Write two examples.
 - f) Differentiate between the Quantal and Graded Bioassay methods with examples.
 - g) Quinidine should not be administered along with the digoxin- Justify.
 - h) State the mechanism and uses of nicorandil.
 - i) Name any four prominent adverse effects of thiazide diuretics.
 - j) Write any two plasma volume expanders and their uses.

Part- II

- Q2** **Only Focused-Short Answer Type Questions- (Answer Any FIVE out of EIGHT)** **(5 x 7)**
- a) Write the mechanism, adverse effects & uses of Glyceryl trinitrate.
 - b) Explain about any one official method of bioassay of Insulin.
 - c) Write about the pharmacology of ACE inhibitors.
 - d) Describe about the mechanism of action and uses of calcium channel blockers.
 - e) Give brief account on coagulants with their uses.
 - f) Write the mechanism, adverse effects and uses of spironolactone.
 - g) Write brief note about oral anticoagulants with special reference to mechanism of warfarin.
 - h) Write the mechanism, adverse effects & uses of quinidine.
 - i) Explain about the pharmacology of sulfonyl ureas used as oral hypoglycaemic drugs.

Part-III

- Only Long Answer Type Questions (Answer Any Two out of Four)**
- Q3** What are cardiac glycosides? Describe the M.O.A., adverse effects and uses of digoxin. **(10)**
- Q4** Classify NSAIDS. Explain about the various pharmacological actions of Aspirin. **(10)**
- Q5** Classify H₁ antihistaminic drugs. Briefly explain about the pharmacology of H₁ antihistaminic drugs. **(10)**
- Q6** Define Bioassay. Describe briefly about the various methods of bioassay. . **(10)**

Registration No :

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Total Number of Pages : 01

B.Pharm
15PH503

5th Semester Back Examination 2019-20

PHARM. ANALYSIS-II

BRANCH : B.Pharma

Max Marks : 100

Time : 3 Hours

Q.CODE : HB213

Answer Question No.1 (Part-1) which is compulsory, any EIGHT from Part-II and any TWO from Part-III.

The figures in the right hand margin indicate marks.

Part- I

- Q1** **Only Short Answer Type Questions (Answer All-10)** **(2 x 10)**
- a) What is diffusion current in polarography?
 - b) Define specific conductance and equivalent conductance.
 - c) What are advantage and disadvantage of DME?
 - d) Mention the factors that affect diazotization titration end point.
 - e) Mention application of PH meter.
 - f) Write the application of Gasometry.
 - g) What are advantage and disadvantage of RIA.
 - h) Define co-precipitation.
 - i) How will you measure electrode potential?
 - j) Write down Ilkovic equation.

Part- II

- Q2** **Only Focused-Short Answer Type Questions- (Answer Any Eight out of Twelve)** **(6 x 8)**
- a) Write down working principle of Nephelometry and Turbidimetry.
 - b) Write a short note on Thermo Gravimetric Curves and its significance.
 - c) Explain theory involved in conductometry.
 - d) Write short note on Biamperometry and Rotating microelectrode.
 - e) Mention the chemical reaction involved in Karl Fisher Titration.
 - f) Write a short note on Radio-immuno Assay.
 - g) What are the principle underlying Amperometric titrations?
 - h) Write a short note on gasometry.
 - i) What are different types of instruments used in potentiometry?
 - j) Explain how diazotization titration helps in assay of drugs.
 - k) Explain the principle involved in Zone Electrophoresis.
 - l) Explain ion selective electrode principle.

Part-III

- Q3** **Only Long Answer Type Questions (Answer Any Two out of Four)** **(16)**
- What is Electrophoresis? Explain the principle and the instrumentation of Gel and Capillary Electrophoresis.
- Q4** Describe about the principle and application of Potentiometric titrations? **(16)**
- Q5** Describe the steps involved in Gravimetric Analysis and explain the industrial application of Gravimetric analysis. **(16)**
- Q6** Explain the principle and procedure involved in Kjeldahl method for nitrogen estimation. **(16)**