

ADICHUNCHANAGIRI UNIVERSITY

D.Pharm Annual Examination – December 2021

TIME: 3 HOURS

MAX.MARKS: 80 MARKS

Sub: Pharmaceutics I

Q P Code: -12121

- INSTRUCTIONS:**
1. Your answer should be specific to the questions asked.
 2. Write legibly.
 3. Write the same question numbers as they appear in this question paper.
 4. Draw neat labelled diagrams wherever necessary.

Section A

Short essay (answer **any ten**)

10X4=40

- 1 Classify Liquid dosage forms with examples.
- 2 Give in brief, the history of the Pharmacopoeia of India.
- 3 How will you prepare 300ml of 45%v/v alcohol from 90%v/v alcohol?
- 4 Classify official grades of powders.
- 5 What are the qualities of good container?
- 6 Write factors affecting Size reduction.
- 7 Write the qualities of ideal filter aids.
- 8 Write in brief about common Ayurvedic dosage forms.
- 9 Differentiate between purified water and water for injection.
- 10 Write advantages and disadvantages of evaporating pan.
- 11 Discuss the theory of freeze drying process.
- 12 Define Tablet. Write the advantages and disadvantages of tablets.
- 13 How will you differentiate between a hard gelatin capsule and soft gelatin capsule?

Section B

Long essay (answer **any four**)

4X10=40

- 14 a) Explain in brief various types of excipients which are generally used in the formulation of tablets.
b) Discuss in brief, the various quality control tests of tablets.
- 15 a) Define and classify the types of Immunity.
b) Explain the method of preparation of Small Pox Vaccine.
- 16 a) Explain continuous hot percolation process with a neat diagram.
b) Write in brief about Meta filter.
- 17 a) Define the term Sterilization. Classify the different methods of sterilization.
b) Explain in detail about ethylene oxide which is used in gaseous sterilization.
- 18 a) Define Homogenisation. Write a note on Silverson mixer homogenizer.
b) Explain with the help of diagram the construction and working of hammer mill
19. Explain construction and working of following:
a) Cyclone Separator
b) Autoclave

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MAX.MARKS: 80 MARKS

Sub: Pharmaceutical Chemistry

Q P Code: -12122

- INSTRUCTIONS:**
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Section A

Short essay (answer **any ten**)

10X4=40

- 1 Define the theories of acids and bases with example.
- 2 Write the chemical formula and uses of the following.
a) Epsom salt b) Blue vitriol c) green vitriol d) precipitated chalk.
- 3 Add a note on types of dental products.
- 4 Discuss inhalants with the storage condition for oxygen and carbon dioxide.
- 5 Write a short note on respiratory stimulants with example.
- 6 What are astringents give example with one preparation.
- 7 Write the types of antidotes with example.
- 8 Write a note on protectives.
- 9 Define intracellular and extracellular electrolytes with example.
- 10 List some inorganic official compounds with formula and uses.
- 11 Discuss the properties of alpha, beta and gama radiations.
- 12 Name the reagents of iron limit test and write their role.
- 13 Write the meaning of the following.
a) Nascent hydrogen b) Parts per million (PPM) c) Turbidity
d) Heavy metals.

Section B

Long essay (answer **any four**)

4X10=40

- 14 Explain the mechanism of Antimicrobial action with example. Write the method of preparation, uses and assay of hydrogen peroxide.
- 15 Explain the principle, reaction and Procedure involved in the limit test for arsenic by giving a neat labeled diagram of apparatus used for the test.
- 16 Write about physiological acid base balance in the body. Give the different combinations of electrolytes used as oral rehydration salt.
- 17 Classify gastrointestinal agents. Write the preparation of aluminium hydroxide gel and list the combination of different antacid preparations.
- 18 Explain Geiger-Muller counter with neat labeled diagram, Add a note on handling of radioisotopes.
19. Define expectorants. Write the synthesis and uses of Ammonium chloride and potassium iodide.

ADICHUNCHANAGIRI UNIVERSITY

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TIME: 3 HOURS

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Sub: Pharmacognosy

Q P Code: -12123

- INSTRUCTIONS:**
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Section A

Short essay (answer **any ten**)

10X4=40

- 1 Write a note on Ayurveda.
- 2 Explain chemical and Pharmacological classification of Natural drugs.
- 3 What are Terpenoids? Write the complete classification of Terpenoids.
- 4 What are Laxatives? Write the morphological character of Rhubarb.
- 5 Write the biological source, chemical constituents and uses of Ginger and Cinnamon.
- 6 Give example of drugs each used as
 - a) Vitamins
 - b) Ointment base
 - c) Perfumes
 - d) Anti-septic
- 7 Write the morphology of Ginger.
- 8 Explain any two chemical tests for glycosides.
- 9 Define adulteration, write various methods of Adulteration.
- 10 Write any two Identification tests for Acacia and Starch.
- 11 Write Biological source, family, chemical constituents and uses of :
 - a) Shatavari
 - b) Pyrethrum.
- 12 Give biological source, Chemical constituents and uses of Vinca and Ephedra.
- 13 Write any two Identification tests for Cotton and Wool.

Section B

Long essay (answer **any four**)

4X10=40

- 14 Write note on
 - a) Diuretics
 - b) Anti-diabetics
- 15 What is drug Evaluation; explain Physical and Microscopical Evaluation of crude drug.
- 16
 - a) Explain the Morphological character of Nux-vomica
 - b) Write note on Anti-dysenterics
- 17
 - a) What are Alkaloids. Classify them with suitable example.
 - b) Explain the procedure involved in Extraction of Alkaloids.
- 18 State the Botanical source, chemical constituents, chemical tests and uses of:
 - a) Aloes
 - b) Catechu.
19.
 - a) Write Morphological and histological characteristics of senna
 - b) What are Cardiotonics give example.

ADICHUNCHANAGIRI UNIVERSITY

D.Pharm Annual Examination – December 2021

TIME: 3 HOURS

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Sub: Biochemistry and Clinical Pathology

Q P Code: -12124

- INSTRUCTIONS:**
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Section A

Short essay (answer **any ten**)

10X4=40

- 1 Write the principle and procedure for Molish's test and Benedict's test.
- 2 Write the Pathway of gluconeogenesis.
- 3 Write a note on obesity and fatty liver.
- 4 Give the biological role of proteins and amino acids.
- 5 Define proteins and classify with example.
- 6 Describe the factors affecting enzyme catalyzed reaction.
- 7 Write the principle involved in estimation blood glucose level.
- 8 Write the structure and function of Vitamin E.
- 9 Write the normal and abnormal constituents of urine.
- 10 Define the following i. Acid value, ii) Iodine value.
- 11 Write a note on Pharmaceutical applications of enzymes with suitable examples.
- 12 Write the Pathway of HMP.
- 13 Explain Ketogenesis and Ketolysis.

Section B

Long essay (answer **any four**)

4X10=40

- 14 Define and classify carbohydrates with examples and write the procedure involved in Osazone test.
- 15 Write in detail about β - oxidation of fatty acid.
- 16 Explain in detail about general reactions of amino acids.
- 17 Describe the source, structure, daily requirement, biological role and deficiency diseases in Vitamin-B1.
- 18 Explain the different types of enzyme inhibition with suitable example and give two pharmaceutical applications of enzymes.
- 19 Explain in detail about Krebs's citric acid cycle.

Sub: Human Anatomy and Physiology

Q P Code: -12125

- INSTRUCTIONS:**
1. Your answer should be specific to the questions asked.
 2. Write legibly.
 3. Write the same question numbers as they appear in this question paper.
 4. Draw neat labelled diagrams wherever necessary.

Section A

Short essay (answer any ten)

10X4=40

- 1 Discuss on active and passive transport.
- 2 Explain histology areolar connective tissue and hyaline cartilage.
- 3 Mention bones of the face with its supporting points.
- 4 Discuss anatomy and physiology of Cerebellum.
- 5 Define anemia and list out its types.
- 6 What is clotting time and give its significance.
- 7 Discuss functions of platelets with its disorder.
- 8 Enlist difference between sympathetic and parasympathetic nervous system.
- 9 Describe the physiological process of respiration.
- 10 Discuss anatomy and physiology of stomach.
- 11 Describe the process of urine formation.
- 12 What is insulin? Explain its role in the regulation of blood sugar level.
- 13 Write the function of hormone of male and female reproductive system.

Section B

Long essay (answer any four)

4X10=40

- 14 Describe anatomy and physiology of heart with its conducting system and define the terms Cardiac arrhythmias and Angina pectoris. (6+4)
- 15 Draw neat labelled diagram of skin. Describe physiology of pain and mention its functions. (4+6)
- 16 Explain Structure of brain with neat labelled diagram and write two functions of Each part of the brain. (5+5)
- 17 Mention the hormones of anterior pituitary gland. Discuss functions of it. (6+4)
- 18 With the help of neat labelled diagram explain female reproductive system and its functions. (6+4)
- 19 Explain structural, functional classification and types of joints movements and its articulation. (5+5)

Sub: Health Education and Community Pharmacy

Q P Code: -12126

- INSTRUCTIONS:** 1. Your answer should be specific to the questions asked.
2. Write legibly.
3. Write the same question numbers as they appear in this question paper.
4. Draw neat labelled diagrams wherever necessary.

Section A

Short essay (answer **any ten**)

10X4=40

- 1 Define Health. Explain briefly physical dimension of health. (1+3)
- 2 Write the function and sources of proteins.
- 3 Explain different stages in demographic cycle.
- 4 Write a note on water-soluble vitamins.
- 5 Write a note on slow sand filters.
- 6 Describe different methods of solid waste disposal.
- 7 Describe the elements used for minor surgery and dressings.
- 8 Mention the causative organisms for the following diseases:
a. Diptheria b. AIDS c. Malaria d. Gonorrhoea
e. Plague f. Rabies g. Leprosy h. Typhoid
- 9 Define entomology. Classify the types of arthropod borne diseases. (1+3)
- 10 Discuss the prevention and control of Cancer.
- 11 Write the procedure for cardiac pulmonary resuscitation.
- 12 Define epidemiology. Write its scope and uses. (1+2+1)
- 13 Discuss the principle involved in disease control.

Section B

Long essay (answer **any four**)

4X10=40

- 14 Define Poison. Write the first aid and treatment of poisoning. (2+4+4)
- 15 Define communicable diseases. Write the mode of transmission, causative agent and prevention and control of Hepatitis. (2+2+1+5)
- 16 Define family planning. Explain in detail the various family planning methods. (2+8)
- 17 Classify bacteria with examples. Explain different staining techniques of bacteria. (4+6)
- 18 Explain types, causes, prevention and control of diabetes mellitus in detail. (2+2+6)
- 19 Define Immunity. Explain different types of immunity. Write a note on immunization schedule. (2+4+4)

Sub: Pharmaceutics I

Q P Code: - 12121

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4. Draw neat labelled diagrams wherever necessary.

Section A

Short essay (answer **any ten**)

10X4=40

- 1 Differentiate between elixirs and syrups.
- 2 How do you prepare 500 ml of 50% alcohol from 90% alcohol by allegation method?
- 3 What are the features of Indian Pharmacopoeia 2014?
- 4 Write in brief about physical properties which affect the perfect mixing of powders.
- 5 Discuss the merits and demerits of glass as a packaging material.
- 6 Explain with the help of a diagram the construction and working of a ball mill.
- 7 Explain fractional distillation with example.
- 8 Differentiate between infusion and decoction process.
- 9 Elaborate the concept of multiple effect evaporation. What specific advantages does it offer?
- 10 Describe the construction and working of rotary machine for the manufacturing of soft gelatin capsules with a neat labelled diagram.
- 11 Explain the principle of freeze drying? What are its applications in pharmacy?
- 12 Write a note on Sterilization indicators.
- 13 List out the various defects commonly occurred during compression of granules into tablets and explain any two in detail.

Section B

Long essay (answer **any four**)

4X10=40

- 14 What are ointments? Classify different ointment bases used in the preparation of ointments. Describe briefly each base.
- 15 Explain the construction and working of filter press. What are the advantages and disadvantages of filter press?
- 16 Define homogenization. Write the principle of homogenization. Write in detail about colloidal mill.
- 17 Define sterilization. Describe moist heat sterilization in detail.
- 18 Explain in detail maceration process.
- 19 Explain in brief the various types of excipients used in the formulation of tablets.

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D.Pharm Annual Examination – August 2021

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Sub: Health Education and Community Pharmacy

Q P Code: - 12126

- INSTRUCTIONS:**
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Section A

Short essay (answer **any ten**)

10X4=40

- 1 Describe important factors that determines the health status of an individual.
- 2 Define proteins. Mention sources and functions of proteins.
- 3 What are essential and nonessential amino acids, classify with example.
- 4 Explain general treatment involved in case of snake bite.
- 5 What is water pollution, mention its sources and control.
- 6 Give the causes, preventive measures and control of cardiovascular diseases.
- 7 Define isolation, describe the methods of isolation of microorganisms.
- 8 Define epidemiology and add a note on epidemiological methods.
- 9 Define diabetes mellitus and mention their types with preventive measures.
- 10 Explain about food poisoning.
- 11 Describe the methods used for purification of water on large scale.
- 12 Explain about Indicators of Health
- 13 Define the following terms A) Vitamins B) Proteins C) Obesity D) Night blindness.

Section B

Long essay (answer **any four**)

4X10=40

- 14 Mention the requirement, sources, deficiency disorders and functions of iron and sodium. Add a note on oral rehydration solution.
- 15 Define shock. Classify different types of shock and explain first aid treatment.
- 16 Describe the cause, mode of transmission and preventive measures for AIDS and Syphilis.
- 17 Define respiratory infections with example. Explain in detail about tuberculosis and poliomyelitis.
- 18 Enlist the different types of cancers. Give the causes, prevention and control of hypertension. Add a note on malignant tumour.
- 19 Define and classify immunity. What are hospital acquired infections, add a note on prevention and control of nosocomial infections.

ADICHUNCHANAGIRI UNIVERSITY

D.Pharm Annual Examination – August 2021

TIME: 3 HOURS

MAX.MARKS: 80 MARKS

Sub: Human Anatomy and Physiology

Q P Code: - 12125

- INSTRUCTIONS:**
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 4. Draw neat labelled diagrams wherever necessary.

Section A

Short essay (answer any ten)

10X4=40

- 1 Mention functions of Ribosomes and Golgi apparatus.
- 2 Discuss location and functions of connective tissue.
- 3 Explain structure and function of spleen.
- 4 Explain the regulation of respiration.
- 5 Mention the bones of upper limb with 2 supporting points.
- 6 Discuss anatomy of midbrain with its functions.
- 7 Write the composition and functions of lymph.
- 8 Explain Renin Angiotensin Aldosterone pathway.
- 9 Explain the structure and function of Tongue.
- 10 Explain adrenal gland and its functions.
- 11 Discuss functions of liver along with its disorder.
- 12 Explain the Physiology of Neuro Muscular Junction
- 13 Mention the phases of Menstrual cycle.

Section B

Long essay (answer any four)

4X10=40

- 14 Classify human skeleton system. Write its functions.
- 15 What is cardiac cycle? Describe various events of cardiac cycle with pressure and volume changes. (4+6)
- 16 Mention the clotting factors and discuss mechanism of coagulation with its functions. (4+6)
- 17 Mention cranial nerves and write one function of each. (5+5)
- 18 Discuss anatomy of Nephron and explain physiology of urine formation. (5+5)
- 19 Explain the internal structure of ear with a neat labelled diagram and write its functions. (5+5)

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Sub: Biochemistry and Clinical Pathology
Q P Code: - 12124

- INSTRUCTIONS:**
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Section A

Short essay (answer any ten)

10X4=40

- 1 Define Polysaccharides. Classify with functions.
- 2 Write the principle of Fehling's test and osazone test.
- 3 What are lipids? Write their functions.
- 4 Explain the functions of proteins
- 5 Explain Protein deficiency diseases
- 6 Describe the structure , functions and deficiency disorder of niacin
- 7 Explain the role of sodium and potassium in the body.
- 8 Write the pharmaceutical applications of enzymes.
- 9 What are lymphocytes? Write the role of lymphocytes in the body.
- 10 What are water soluble vitamins? Name them with their Co-enzymes.
- 11 Write a note on water balance in the body.
- 12 Write a note on scope of Biochemistry
- 13 Explain Megaloblastic anemia

Section B

Long essay (answer any four)

4X10=40

- 14 Explain H M P Shunt pathway.
- 15 Explain in detail about general reactions of amino acid.
- 16 Describe in detail B-oxidation of fatty acids with its energetics.
- 17 Explain the functions and deficiency diseases of fat soluble vitamins.
- 18 Explain the effect of enzyme concentration ,substrate concentration, temperature, ph on the rate of enzyme reaction
19. Write notes on diagnostic enzymes and therapeutic enzymes.

Sub: Pharmacognosy

Q P Code: - 12123

- INSTRUCTIONS:**
1. Your answer should be specific to the questions asked.
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 4. Draw neat labelled diagrams wherever necessary.

Section A

Short essay (answer any ten)

10X4=40

- 1 Explain the Ayurveda system of medicine.
- 2 Define Sutures? Write the types and uses of sutures.
- 3 Write note on any one Animal fiber.
- 4 Explain in detail about Resins.
- 5 Write the method of cultivation and collection of Rauwolfia.
- 6 Define the following
 - a) Adulteration
 - b) Stomatal number
 - c) Pharmacognosy
 - d) Un organised drug.
- 7 Write biological source, family and uses of a) Papaya, b) Diastase.
- 8 Explain the Morphological classification of crude drugs
- 9 Explain life cycle of Ergot.
- 10 Write biological source, chemical constituents and uses of drugs acting on Nervous system.
- 11 Name a drug which is used as the following along with their Biological source-
 - a) Carminatives
 - b) Anti-diabetic
 - c) Antirheumatics
 - d) Antidysentrics.
- 12 Write a note on scope of Pharmacognosy.
- 13 Name the drug, give its botanical source and uses for the following constituents:
 - a) Piperine
 - b) Zingerone
 - c) Quinine
 - d) Codeine

Section B

Long essay (answer any four)

4X10=40

- 14
 - a) Describe the official source, chemical constituents, morphology and method of cultivation and collection of Digitalis.
 - b) Write a note on terpenoids
- 15
 - a) Describe the morphological and anatomical characters of Cinnamon bark.
 - b) Write a short note on Surgical dressings.
- 16 What are Glycosides? Classify with examples, write chemical tests for Glycosides.
- 17 Define Evaluation and mention the different methods of evaluation, explain in detail Physical evaluation of crude drugs
- 18 What are Pharmaceutical aids? Explain any two drugs used as pharmaceutical aids.
- 19 Mention various types of classification of crude drugs explain Pharmacological and Chemical classification.

Sub: Pharmaceutical Chemistry I

Q P Code: - 12122

- INSTRUCTIONS:** 1. Your answer should be specific to the questions asked.
2. Write legibly.
3. Write the same question numbers as they appear in this question paper.
4. Draw neat labelled diagrams wherever necessary.

Section A

Short essay (answer **any ten**)

10X4=40

- 1 Give the reaction, principle and procedure involved in limit test of Iron.
- 2 Discuss handling and storage of radioactive materials.
- 3 Give the stability and storage condition for Ferrous Sulphate and Iodine.
- 4 Write the composition of ORS-A, mention its use and how it is to be used?
- 5 Write a note on antidotes.
- 6 With the suitable examples, define the terms 'Expectorants' and 'Emetics'.
- 7 Explain the assay of Ammonium chloride with suitable reactions.
- 8 Write a note on respiratory stimulants.
- 9 Write a note on inhalants. Give storage and labelling conditions of Oxygen.
- 10 Write a note on role of fluoride in dental products.
- 11 Give a note on preparation of Calcium gluconate.
- 12 What are Antioxidants? Discuss the mechanism of action of inorganic type of them with suitable examples.
- 13 Define a) Normality b) Molarity c) Molality d) w/w.

Section B

Long essay (answer **any four**)

4X10=40

- 14 Explain different sources Impurities in Pharmaceutical preparations.
- 15 What are Antacids? Classify with examples. Mention the ideal properties of an effective antacid. Write a note on preparation of Magnesium sulphate.
- 16 What are Radio isotopes? Elaborate upon the radiations emitted and their effects. Explain the precautions in their storage and handling.
- 17 With suitable reactions explain the principle involved in assay of a) Chlorinated lime b) Hydrogen peroxide.
- 18 Define and classify intracellular and extracellular electrolytes with examples. Write their importance.
- 19 What is respiratory stimulant? Add a note on Ammonium chloride.
