

**GOVERNMENT OF KARNATAKA BOARD OF EXAMINING AUTHORITY**  
**D. Pharm Part-I Examination (ER-2020) - JANUARY- 2024**  
**PHARMACEUTICS**

Time: 3 Hours

Max marks: 80 M

- Note: i) Answer 6 questions from section A, 10 questions from section B and all questions from section C.  
 ii) Draw diagram wherever necessary.  
 iii) Answer to the point for objective type.

## SECTION –A

6X5=30 M

Long Essay (Answer any six)

1. Write the salient features of fourth edition of IP
2. Explain the principle, construction and working of ball mill with its applications
3. Write the different methods used for the preparation of ointments
4. Explain the theories of filtration
5. Describe the selection criteria for selection of packaging material
6. What are Injections? Add a note on additives used in injectable preparation.
7. Define NDDS. Classify various types of novel drug delivery system

## SECTION –B

10X3=30 M

Short Essay (Answer any ten)

8. Write a note on Oral Controlled drug delivery system
9. Enlist various quality control tests performed for capsules. Explain any one quality control test in detail
10. Write the difference between lotions and liniments.
11. Write a note on GMP
12. Write two examples each for preservatives, antioxidants and sweetening agents
13. Describe the principle and construction of Fluidized bed dryer
14. Classify different types of tablets
15. Describe the working of Turbine mixer with a neat labeled diagram
16. Write the working of cyclone separator with a neat labeled diagram
17. Write a note on career opportunities in Pharmacy profession
18. Mention the advantages and disadvantages of glass as material used in pharmaceutical packaging

## SECTION –C

20X1= 20M

Objective type (Answer all questions)

19. Define Ointment
20. What are pyrogens.
21. Define Extra pharmacopoeia
22. What is percolation
23. Give two examples of vaccines
24. Name any two Targeted drug delivery system
25. Define Quality control
26. Define Total quality management
27. What type of plastic is used in disposable syringes
28. Define the term "sieve"
29. What is the principle behind hammer mill
30. What are effervescent granules?
31. \_\_\_\_\_ is the Father of Pharmacy
32. The primary emulsion formula used for fixed oils is \_\_\_\_\_
33. The fifth edition of Indian Pharmacopoeia was published in \_\_\_\_\_ year
34. Extraction without the aid of heat is \_\_\_\_\_
35. Match the following.

A

- 1) Type I glass
- 2) Colouring agent
- 3) Menstruum
- 4) Sweetening agent

B

- a) Solvent used for extraction
- b) Borosilicate
- c) Soda lime
- d) Caramel
- e) Saccharine
- f) EDTA

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**GOVERNMENT OF KARNATAKA**  
**BOARD OF EXAMINING AUTHORITY**  
**D. Pharm Part-I Examination (ER-2020) JANUARY 2024**

**PHARMACEUTICAL CHEMISTRY**

**Time: 3 Hours**

**Max marks: 80 M**

**Note: i) Answer 6 questions from section A, 10 questions from section B and all questions from section C.**

**ii) Draw diagram wherever necessary.**

**iii) Answer to the point for objective type.**

**SECTION –A**

**Long Essay (Answer any six)**

**6X5=30 M**

1. Write the Principle and procedure involved in the limit test for Arsenic and draw a neat labeled sketch of Gutzeit apparatus ✓
2. Write the principle and various steps involved in the Gravimetric analysis. ✗
3. Define sedative and hypnotics. Classify them with examples. Write the structure, chemical name, use, stability and storage conditions and brand name of Alprazolam. ✓
4. What is Para sympatholytic agent . Classify them with examples Give the chemical structure, chemical name and uses of Dicyclomine hydrochloride. ✓
5. Define Antihypertensive agents. Classify them with examples. Write the structure and chemical name, uses and brand names of Captopril. ✗
6. a. What are sulfonamides? Classify them with examples write the structure and brand name of sulfacetamide.  
b. Classify Anti tubercular agents giving suitable examples.
7. Classify Antibiotics according to chemical structure with examples. Draw and explain the structure of basic nucleus of Pencillins. Also write structure of Amoxicillin with its chemical name.

**SECTION –B**

**Short Essay (Answer any ten)**

**10X3=30 M**

8. What are medicinal gases? Write the storage, labeling and uses of Nitrous oxide. ✗
9. Define Topical agents. Write the preparation, uses and pharmaceutical formulations of Silver nitrate. ✓
10. What are Neuroleptics? Classify with examples. Write the structure of Chlorpromazine Hydrochloride.
11. Classify adrenergic drugs with examples. Write the structure and pharmaceutical formulation of Norepinephrine ✓
12. Write a note on Antiarrhythmic agents. Write the structure of Phenytoin sodium with its brand names. ✓
13. What are diuretics. Draw the chemical structure of Frusemide. Give its chemical name and uses ✗
14. Explain Diabetes mellitus. Classify hypoglycemic agents with examples. ✗
15. Write the structure, properties, uses and brand names of Ibuprofen. ✗
16. What are antimalarial agents. Classify them with examples, write the structure of Chloroquine phosphate ✗
17. Write the structure, properties pharmaceutical formulations and brand name of Chloramphenicol ✗
18. Define antineoplastic agents? Write the structure, chemical name , pharmaceutical formulation and brand names of Cisplatin. ✗

**SECTION –C**

**Objective type (Answer all questions)**

**20X1= 20M**

19. Define Precision and Accuracy. ✓
20. Define Normality and Molarity ✓
21. Define Isomers ✓
22. Write example for Anticaries agents ✓
23. Phenytoin is an---- a. Antidepressant b. Stannous fluoride c. Calcium carbonate d. Zinc chloride ✓
24. Neostigmine is used as ✓
25. Give example non selective beta blocker ✓
26. Give the example of Loop diuretics ✓
27. Write the brand name of Glimepiride
28. Write the example for nonselective COX-2 Inhibitor. ✓
29. Write the antibiotic used in the treatment of multidrug resistant tuberculosis
30. Name the pencillin derivative which is used to treat infections produced by gram positive bacteria.
31. Write the example for an alkylating agent ✓
32. Write the chemical name of Chlorinated lime ✓
33. ---- suffix for -oate is a. -CN b. -OH c. -COOR d. -CHO ✓
34. ---- is a Beta Adrenoreceptor antagonist a. Atenolol b. Amlodipine c. Verapamil d. Bepridil ✓
35. Match the following ✓

**A**

**B**

- 1) Frusemide
- 2) Zinc chloride
- 3) Selective COX-2 Inhibitor
- 4) Ferrous fumarate

- a) Celecoxib
- b) To treat Iron deficiency
- c) Dentifrices
- d) Diuretics
- e) NSAID'S



**GOVERNMENT OF KARNATAKA  
BOARD OF EXAMINING AUTHORITY  
D, PHARM PART I EXAMINATION (ER – 2020) JANUARY 2024**

**PHARMACOGNOSY**

**TIME: 3 HOURS.**

**MAX MARKS: 80**

- Note:** i. Answer 6 from Section A, 10 from Section B and all questions from Section C.  
ii. Draw diagrams wherever necessary.  
iii. Answer to the point for objective type.

**SECTION A**

**LONG ESSAY (Answer any 6)**

**6X5=30M**

1. Define crude drugs. Briefly explain chemical classification with examples.
2. Write a note on history and Scope of Pharmacognosy.
3. Write the biological source, chemical constituents and therapeutic uses of each drug belonging to a) Myristicaceae b) Apocyanaceae
4. Define Volatile oils. Classify them with suitable examples. Enlist the isolation methods of volatile oils.
5. Explain the basic principle involved in the traditional system of Medicine practiced in India.
6. Briefly enumerate the different types of adulteration of crude drugs with examples.
7. Define antiseptics and disinfectants. Write the botanical source, family, Chemical constituents of any two drugs of this category.

**SECTION B**

**Short essay (Answer any 10)**

**10X3=30M**

8. Write the Biological Source, family, chemical constituents and therapeutic uses of cotton.
9. Write in brief various physical evaluation of drugs in quality control.
10. Enumerate the various Ayurvedic formulations and write the preparation of Avaleha.
11. Write a note on Carotenoids and its therapeutic uses as health foods.
12. Write the chemical name and category of a) Guggul b) Ashwagandha c) Senna.
13. Give the chemical tests for Saponin glycosides.
14. Define Antitussives and Antirheumatics give examples for each.
15. Enumerate the various herbal cosmetic formulations with examples.
16. Write the morphological classification of crude drugs with merits and demerits.
17. Give the biological source, chemical constituents and uses of Papain and gelatin.
18. Explain the strategy to improve trade of medicinal plants and their products.

**SECTION C**

**Objective Type (Answer all question)**

**20X1=20M**

19. Define Stomatal index.
20. Define vitamins.
21. Name any two flavouring agents.
22. Name the biological source and family of Clove flower bud.
23. Define Suture and Ligature.
24. Write the Biological role of Soyabeans.
25. Give the chemical test for Quinine.
26. Mention the uses of Nuxvomica and Gymnema.
27. Define alkaloids.
28. What are astringents and give examples.
29. Give one example for Probiotics and Prebiotics.
30. Mention the chemical tests for tannins.
31. The chief chemical constituents present in coriander is -----
32. Rauwolfia is used as ----- agent
33. The family of Aloe vera is -----
34. The Azeotropic / toluene distillation is used to determine ----- content in drugs
35. Match the following

A

1. Arjuna
2. Clove oil
3. Polyunsaturated fatty acid
4. Pale catechu

B

- i) Gambier fluorescein test
- ii) Oxytocic
- iii) Cardiotonic
- iv) Dental analgesaic
- v) Haemolysis
- vi) Nutraceuticals

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**GOVERNMENT OF KARNATAKA  
BOARD OF EXAMINING AUTHORITY  
D. Pharm Part-I Examination (ER-2020) JANUARY 2024  
HUMAN ANATOMY AND PHYSIOLOGY**

Time: 3 Hours

Max marks: 80 M

Note: i) Answer 6 questions from section A, 10 questions from section B and all questions from section C.

ii) Draw diagram wherever necessary.

iii) Answer to the point for objective type.

## SECTION –A

Long Essay (Answer any six)

6X5=30 M

1. Classify Joints and explain the synovial joint with diagram.
2. Explain the physiology of the blood.
3. Explain in detail pulmonary and systemic circulation.
4. Describe the histology of small intestine with a diagram and its functions.
5. Define reflex action and explain reflex arc with a diagram.
6. Explain the physiology of the eye.
7. Name the secretions of pituitary gland and their functions.

## SECTION –B

Short Essay (Answer any ten)

10X3=30 M

8. Name different types of epithelial tissue with their location and functions.
9. Describe Erythropoiesis
10. Draw a neat labeled diagram of internal structure of the heart.
11. Explain the mechanism of external respiration.
12. Write the composition and functions of saliva.
13. Write the difference between sympathetic and parasympathetic nervous system.
14. Describe the physiology of the skin.
15. Describe the role of kidney in maintenance of blood pressure.
16. Explain the endocrine part of pancreas.
17. Explain the process of Spermatogenesis.
18. Write the structure and functions of spleen.

## SECTION –C

Objective type (Answer all questions)

20X1= 20M

19. Define cell.
20. Name two female sex hormones.
21. Classify tissue.
22. Name the circulation that supplies blood to heart muscle.
23. Define internal respiration.
24. Name three pairs of salivary glands.
25. Write any two functions of mitochondria
26. What is Puberty?
27. List the cartilages present in the larynx.
28. Give any two functions of lymphatic system.
29. Write any two properties of RBC.
30. What is micturition?
31. Pleura is membrane around the .....
32. Palm is made of 5 metacarples and .....carples.
33. Tongue is an example of ..... muscle.
34. The artery which leaves the Bowmann's capsule is called ..... artery.
35. Match the following

A

B

- |                   |   |
|-------------------|---|
| 1) Ovum           | a) Vagus  |
| 2) Frontal Plane  | b) Liver  |
| 3) Cranial nerve  | c) Divides the body into anterior and posterior |
| 4) Adrenal cortex | d) Taste buds.                                  |
|                   | e) Oogenesis .                                  |
|                   | f) Aldosterone                                  |

**GOVERNMENT OF KARNATAKA BOARD OF EXAMINING AUTHORITY**  
**D. Pharm Part-1 Examination (ER-2020) - JANUARY- 2024**  
**SOCIAL PHARMACY**

Time: 3 Hours

Max marks: 80 M

Note: i) Answer 6 questions from section A, 10 questions from section B and all questions from section C.

ii) Draw diagram wherever necessary.

iii) Answer to the point for objective type.

## SECTION –A

Long Essay (Answer any six)

6X5=30 M

1. Define Public Health. Elaborate how pharmacists can contribute to public health
2. What are the environmental risk factors for Disease? Explain cause and effects of Pharmaceutical pollution
3. What is drug abuse? Describe adverse effects of alcohol on academic life
4. What are Essential fatty acids? Give two examples. Write the source and functions of Vitamin D & Vitamin C
5. Briefly write the causative organism, mode of transmission, diagnostic test, prevention and control of Diphtheria
6. Write the causative agents, symptoms, mode of transmission and prevention and control of chicken pox
7. Name four vector borne diseases. Explain the objectives of National Vector Control Programme

## SECTION –B

Short Essay (Answer any ten)

10X3=30 M

8. Define Health. Explain the four important dimensions of health
9. What are the disadvantages of feeding a baby with formula based bottle feeding
10. What are the types of vaccines? Give examples for each
11. What is Glycemic index of food? Give an example for high GI food and low GI food
12. What is DASH diet? Write a safe diet for Hypertension
13. Write the causative agents and clinical presentation involved in Filariasis
14. Define Epidemiology. What are the methods used in Epidemiology?
15. What is food poisoning? List methods adopted for prevention and control of food poisoning.
16. Explain the role of Pharmacist in education, prevention and control of Typhoid
17. Explain the mode of transmission of Cholera. What is ORS? List its composition.
18. Briefly write the lifecycle of malarial parasite

## SECTION –C

Objective type (Answer all questions)

20X1= 20M

19. Define GMF. Give two examples of GMF
20. Expand the abbreviation SARS
21. What is the causative organism of Whooping Cough?
22. What are the drugs used in the treatment of tuberculosis?
23. Write a note on Phagocytosis
24. Define a) Incubation period b) Quarantine
25. Write the causative agents involved in mumps
26. Expand the abbreviation MDGS.
27. What are narcotics? Give two examples
28. What is innate immunity? Give types of innate immunity
29. Give four benefits of Health insurance
30. What is cost utility analysis (CUA)?
31. The microorganism that is photosynthetic is \_\_\_\_\_
32. The adulterant used in pepper is \_\_\_\_\_
33. Rabies is also known as \_\_\_\_\_
34. Disease that spreads from one person to other is \_\_\_\_\_
35. Match the following.

A

- 1) Antiseptic
- 2) Niacin
- 3) Cretinism
- 4) Pesticide

B

- a) Iodine deficiency
- b) Urea and Phosphate
- c) DDT
- d) Betadiene
- e) Glycerine
- f) Pellegra

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