

**GOVERNMENT OF KARNATAKA
BOARD OF EXAMINING AUTHORITY
D. Pharm Part-I Examination (ER-2020) JULY 2025
PHARMACEUTICS (QP CODE 510)**

Time: 3 Hours

Maxmarks: 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=30M

1. Write the construction and working of freeze dryer.
2. What is novel drug delivery system? List out the challenges of NDDS.
3. Classify Plastic used in pharmaceutical packaging with examples.
4. Write a note on history of Indian pharmacopeia.
5. Explain the working of hand operated hard gelatin capsule machine with a neat diagram.
6. Define and classify tablets with examples.
7. Explain the construction and working of Ball mill.

SECTION-B

Short Essay (Answer any ten)

10X3=30M

8. Explain different career options available for pharmacy student.
9. What are primary, secondary and tertiary packaging materials?
10. What are ideal properties of pharmaceutical aids?
11. What are insufflations? Give examples.
12. Classify suspensions with examples.
13. List out essential requirements of parenteral products.
14. Write the principle and construction of cyclone separator.
15. Classify different extraction methods.
16. Explain the working of silverson homogenizer and give two applications.
17. Discuss in details basic structure of pharmaceutical manufacturing plant.
18. Define the terms a) Liposomes b) Nanoparticles c) Implants

SECTION-C

Objectivetype (Answer all questions)

20X1= 20M

19. Who is called father of medicine.
20. What is extra pharmacopeia?
21. Write the use of amber coloured glass container?
22. Name any two flavoring agents.
23. Mention any two disadvantages of rubber as closure material.
24. Define preservatives.
25. What is coarse powder?
26. Mention applications of triple roller mill
27. Define filtration.
28. Define elixir.
29. Give any two disadvantages of NDDS.
30. Define validation.
31. The processing converting large particles into small particles are called.....
32. GMP stands for....
33. Hammer mill works on principle of...
34. Stratum corneum an outer most layer of skin is also called as.....
35. Match the following

A

- 1) Live-attenuated vaccine
- 2) Enteric coated agents
- 3) Suppositories base
- 4) Filter aid

B

- a) Massa estarinum
- b) Bentonite
- c) Chicken pox
- d) Cellulose acetate phthalate
- e) Methylparaben
- f) EDTA



PHARMACEUTICAL CHEMISTRY (QPCODE 520)

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. Explain the principle and procedure involved in the limit test for Iron.
2. Define and classify antidepressants. Write the structure, chemical name and dose of Amitriptyline.
3. Give an account of complexometric titrations.
4. Explain general anesthetics with examples.
5. Define cholinergic drugs. Add a note on cholinesterase inhibitors.
6. a) Name the Pharmacological category of
 - (i) Quinidine (ii) Captopril (iii) Clonidine (iv) Verapamil (v) Lidocaine HCl
- b) Write the structure and chemical name of Phenytion and Captopril
7. a. Define and classify Urinary tract anti-infective agents with examples
- b. Classify antitubercular agents giving suitable examples

SECTION -B

Short Essay (Answer any ten)

10X3=30 M

8. What are Antacids? Give the ideal requirements of antacids.
9. Write a note on saline cathartics.
10. Write a short note on Antineoplastic agents.
11. Give the structure, chemical name uses and official preparations of Diazepam
12. What are cardiovascular drugs? Mention the different types with suitable examples.
13. Name any two loop diuretics. Give the structure, chemical name, brand name of any one of them.
14. Write a short note on Insulin and its preparation.
15. Define narcotic analgesics and classify them with examples. Write any one structure.
16. What are sulphonamides? Classify them based on their chemical structure and write the structure of any one drug
17. Write the chemistry of Penicillins.
18. Explain antifungal agents with examples.

SECTION -C

Objective type (Answer all questions)

20X1= 20M

19. What is the use of citric acid in iron limit test?
20. Mention the types of errors.
21. Define Dentifrices.
22. Write the structure and use of Gabapentin.
23. Name the heterocyclic ring present in Carbamazepine.
24. Write the names of Antiviral agent.
25. The composition of co-trimoxazole is -----and-----.
26. -----and ----- are examples of antipsychotic drugs.
27. Define alpha adrenergic blockers.
28. -----is a calcium channel blocker used as antihypertensive.
29. Name one example of hypoglycemic agent.
30. Write a antiviral drug used in the treatment of Herpes simplex.
31. Write the structure of Dapsone.
32. Crystallurea is the side effect of -----.
33. Write any two brands of Furosemide.
34. Name two examples of antimalarial drugs.
35. Match the following

A

- 1) Stannous Fluoride
- 2) Carbonic anhydrase inhibitor
- 3) Oxicam derivative
- 4) Non systemic Antacid

B

- a) Aluminum hydroxide gel
- b) Piroxicam
- c) Dentifrices
- d) Acetazolamide.
- e) PAS
- f) Ibuprofen

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Time: 3 Hours

Max marks: 80 M

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- 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 glycosides. Write the extraction and isolation of glycosides.
2. Write the therapeutic applications of Antioxidants, Carotenoids and Dietary fibres.
3. Write the historical development and present status of Pharmacognosy.
4. Explain the basic principle involved in Homeopathic System of Medicine.
5. Write the chemical classification of crude drugs with examples.
6. Define Drug Adultration. Explain different types of Adultration with examples.
7. Define laxatives. Write the biological source, chemical constituents and uses of any two laxatives.

SECTION B

Short Essay (Answer any ten)

10x3=30M

8. Define carminatives. Write the biological source, Chemical constituents and uses of Nutmeg and Asafoetida.
9. Define Herbal cosmetics. Classify them with examples.
10. Explain the method of preparation of Bhasma and Gutika.
11. Explain the role of medicinal and aromatic plants in National economy.
12. Write the Nutraceutical significance of Spirulina.
13. What are Phytosomes? Give its preparation.
14. Write the chemical constituents of Ashwagandha and squill.
15. Write two antimalarial drugs and give it Biological source and active constituents.
16. Define evaluation of crude drugs. Explain morphological evaluation with examples.
17. Define Resins. Write the identification tests for Resins.
18. Write the Biological source, chemical constituents and cosmetic uses of Almond oil and sandalwood oil.

SECTION C

Objective type (Answer all questions)

20x1=20M

19. Define Terpenoids.
20. Name a drug used as antidiabetic.
21. Give an example for organized and unorganized crude drug.
22. Define stomata.
23. What are enzymes?
24. Write the synonym for Rauwolfia and Ipecacuanha.
25. Mention the chemical constituents of coffee seeds.
26. Give two examples for emulsifying agents.
27. Name any two crude drugs acting on CNS.
28. Write the botanical name for Lavender oil.
29. Write two adultrants for cinnamon bark.
30. Define essential oils.
31. ----- is an example for oxytocic.
32. ----- is an example for antitumour activity.
33. In the preparation of absorbent cotton, the short length fibers are called as -----
34. ----- is an example of liquid Ayurvedic formulation.
35. Match the following

A

1. Disc shaped
2. Quills
3. Sub globular
4. Ribbon like flakes

B

- a. Coriander
- b. Ipecac
- c. Tragacanth
- d. Cinnamon
- e. Nuxvomica
- f. Antileprotic drug.

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**GOVERNMENT OF KARNATAKA
BOARD OF EXAMINING AUTHORITY
D. Pharm Part-I Examination (ER-2020) JULY 2025
HUMAN ANATOMY AND PHYSIOLOGY
(QP CODE 540)**

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 Nervous system. Write the composition and functions of CSF.
2. Explain the various events of cardiac cycle.
3. Name the hormones secreted by pituitary gland with their functions.
4. List out the clotting factors. Explain the coagulation mechanism of blood.
5. Draw a neat labeled diagram of skin and write its functions.
6. Classify joints with examples and write a note on synovial joints
7. Explain the anatomy and functions of Liver

SECTION -B

Short Essay (Answer any ten)

10X3=30 M

8. Write short notes on conduction system of heart.
9. Names the hormones of adrenal gland and mention their functions.
10. Write the composition and functions of gastric juice.
11. Explain in brief internal and external respiration.
12. Define blood. List out the functions of blood.
13. Draw a neat labeled diagram of spleen and mention its functions.
14. Explain Renin-Angiotensin system in regulation of blood pressure.
15. List out the functions of medulla oblongata and pons.
16. Write a note on connective tissue.
17. Explain various family planning methods.
18. Explain the structure of eye with the help of diagram.

SECTION -C

Objective type (Answer all questions)

20X1= 20M

19. Write the main function of lysosomes.
20. ----- is the structural and functional unit of life.
21. Give an example of involuntary muscle.
22. Define muscular dystrophy.
23. Define Heart Rate.
24. Define Homeostasis.
25. ----- part of the brain regulates body temperature.
26. Mention the three main divisions of body planes.
27. Define vital capacity.
28. Name the contraction filaments of skeletal muscles.
29. The largest artery in body is -----
30. ----- is the longest bone in the body.
31. What is the life span of RBC?
32. Write the exocrine functions of pancreas.
33. Mention the largest organ of the lymphatic system.
34. Define Parturition.
35. Match the following

A

- 1) Renin
- 2) Hysterectomy
- 3) Urinary system
- 4) Neuron

B

- a) Filter the waste and excess fluid
- b) Structural and functional unit of brain
- c) Transport of blood and gases
- d) Growth hormone
- e) Juxtaglomerular apparatus
- f) Removal uterus.



TIME: 3 Hours

Max Marks. 80

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SECTION A

Long essay (Answer any Six)

6×5=30M

1. Discuss the various dimensions of health.
2. Define immunity. Write the difference between active and passive immunity.
3. Define the term demography. Explain the demographic cycle.
4. Write the classification of vitamins with suitable examples.
5. Describe the mode of transmission, clinical features and preventive measures of Dengue fever.
6. Write the clinical presentation, mode of transmission and preventive measures of HIV.
7. Write objectives and functions of national vector-borne diseases.

SECTION B

Short essay (Answer any Ten)

10×3=30M

8. Describe the determinants of health.
9. What is water pollution? Discuss its causes and ill effects.
10. Discuss the methods of solid waste disposal.
11. Write the sources and functions of vitamin A.
12. What are the ill effects of artificial ripening?
13. Write the clinical presentation and preventive measures for typhoid.
14. Write the clinical features and role of pharmacists in preventing diphtheria
15. Write the mode of transmission and clinical features of COVID-19 infection.
16. Discuss the epidemiology and clinical features of Ebola.
17. Write the applications of epidemiology.
18. Write a note on the national program for palliative care

SECTION C

Objective Type (Answer all questions)

20×1=20M

19. What is physical health?
20. Mention any two non-communicable diseases.
21. Define mortality.
22. Define the term vasectomy.
23. Mention any two ill effects of infant milk substitutes.
24. What is drug addiction?
25. What is the psychology of suicidal behaviour?
26. Mention any two examples of live attenuated vaccines.
27. Define the term pandemic.
28. Give two examples of indirect non-medical costs.
29. What is cost-effectiveness analysis?
30. The neurological complications of the DPT vaccine are due to ----- component.
31. Define the term isolation.
32. Scurvy is caused due to a deficiency of ----- vitamin.
33. NACP stands for -----.
34. The bacterium that causes meningitis is called as -----.
35. Match the Following

A

1. Amoebiasis
2. Tetanus
3. Tuberculosis
4. Trichoma

B

- a) Chlamydia trachomatis
- b) Mycobacterium tuberculosis
- c) Clostridium tetani
- d) Entamoeba histolytica
- e) Hepatitis B
- f) Corynebacterium diphtheriae.

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