



ER20-PH-11T

8001

BOARD DIPLOMA EXAMINATION, (ER-20)

JULY/AUGUST-2024

DPH - FIRST YEAR EXAMINATION

PHARMACEUTICS

Time : 3 Hours ]

[ Total Marks : 80

**PART—A**

5×6=30

**Instructions :** (1) Answer any six questions.

(2) Each question carries five marks.

(3) Answers should be brief and straight to the point and shall not exceed five simple sentences.

1. Discuss the various additives used in the formulation of tablets. 5
2. Classify emulsifying agents and explain them in brief. 5
3. Define Ointment. Classify ointment bases with examples. 1+4=5
4. Write a brief note on Effervescent Granules. 5
5. Write the method of preparation of smallpox vaccine. 5
6. Write the construction and working of fluidised bed dryer.  $2\frac{1}{2}+2\frac{1}{2}=5$
7. Write in detail about plastic as packaging material. 5

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**PART-B**

3×10=30

**Instructions :** (1) Answer *any ten* questions.

(2) Each question carries **three** marks.

(3) Answers should be brief and straight to the point and shall not exceed five simple sentences.

8. Define Capsules. What are the different sizes of hard gelatine capsules?  
1½+1½=3
9. Write a note on enteric coating. 3
10. Discuss the film coating of the tablets. 3
11. Differentiate the flocculated and deflocculated suspension. 3
12. Write the differences between Liniments and Lotions. 3
13. What are the general requirements of Parenteral dosage forms? 3
14. Write a brief note on Quality Control in Pharmaceuticals. 3
15. What are the advantages of novel drug delivery systems? 3
16. Classify powders according to I.P. 3
17. Write the theory of filtration. 3
18. Define Pharmacopoeia. Write a note on Indian Pharmacopoeia. 3

**PART—C****Instructions :** (1) Answer **all** questions.(2) The question carries **one** mark.

(3) Answer should be in single word or single sentence.

19. Which one of the following polymer is used for enteric coating of tablet?
- (a) Cellulose acetate Phthalate ✓
  - (b) Carbowax
  - (c) Polyvinyl Chloride
  - (d) Cellulose
20. Unequal distribution of colour on the surface of coloured tablets is
- (a) Capping
  - (b) Picking ✓
  - (c) Mottling
  - (d) Chipping
21. The concept of displacement value is associated with
- (a) Ointment
  - (b) Suppository ✓
  - (c) Gel
  - (d) Paste
22. Which of the following is used as bactericide and fungicide in eye drops?
- (a) Benzalkonium Chloride ✓
  - (b) Phenol
  - (c) Mercuric Chloride
  - (d) Sodium Meta bisulphite
23. GMP ensures which of the following parameter?
- (a) Quality ✓
  - (b) Safety
  - (c) Efficacy
  - (d) All of the above

24. Targeted drug delivery can be achieved in Cancer Chemotherapy through
- (a) Nanoparticles
  - (b) Prodrug
  - (c) Buccal strips
  - (d) Implants
25. In sugar coating of tablets, sealing is done by
- (a) Shellac
  - (b) Bees wax
  - (c) Gelatin
  - (d) Acacia
26. Soft gelatin capsules shell is made elastic by the addition of
- (a) Sorbitol
  - (b) Povidone
  - (c) PEG
  - (d) Lactose
27. Creams are basically
- (a) Solids
  - (b) Emulsions
  - (c) Ointment like preparations
  - (d) None of the above
28. The lack of ability to resist infection is called
- (a) Immunity
  - (b) Resistance
  - (c) Susceptibility
  - (d) Toxicity
29. The Chairman of the first edition of I.P was
- (a) Dr. B. N. Ghosh
  - (b) Dr. B. Mukherjee
  - (c) Dr. Nitinand
  - (d) Mr. Prasana Totta

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30. Which one of the following ingredient acts as flavouring agent?
- (a) Sorbitol
  - (b) Menthol
  - (c) Benzoic Acid
  - (d) Magnesium Stearate
31. The following mill working on the principle of impact
- (a) Cutter Mill
  - (b) Hammer Mill
  - (c) Ball Mill
  - (d) Fluid Energy Mill
32. Which one of the following ingredient is used as Glidant in the formulation of tablets?
- (a) Cellulose Acetate Phthalate
  - (b) Carbowax
  - (c) Polyvinyl Chloride
  - (d) Magnesium Stearate
33. Which one of the plasticizer used in soft gelatin capsules?
- (a) Polyethylene Glycol
  - (b) Polypropylene Glycol
  - (c) Glycerol
  - (d) Sorbitol
34. Type-II glass is also known as \_\_\_\_\_.
35. Ascorbic acid and sodiummetabisulphite are used as \_\_\_\_\_.
36. \_\_\_\_\_ are inhaled into nostrils for their bronchodilator and decongestion action.
37. In dissolution test, dissolution media is maintained at \_\_\_\_\_ temperature.
38. The disintegration time of uncoated tablet is less than \_\_\_\_\_ mts.

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ER20-PH-12T

8002

BOARD DIPLOMA EXAMINATION, (ER-20)  
JULY/AUGUST—2024  
DPH - FIRST YEAR EXAMINATION  
PHARMACEUTICAL CHEMISTRY

Time : 3 hours ]

[ Total Marks : 80

**PART—A**

5×6=30

**Instructions :** (1) Answer *any six* questions.

(2) Each question carries **five** marks.

(3) Answers should be comprehensive and the criterion for valuation is the content but not the length of the answer.

1. What are impurities? Write about various sources of impurities.
2. Discuss about various complexometric titrations.
3. What are Antacids? Write the molecular formula, pharmaceutical formulations, storage and uses of Sodium bicarbonate.
4. Define Anti-convulsants and classify with examples. Write the chemical name, structures and uses of Phenytoin.
5. Define Anticholinergic drugs and write the classification, chemical name, structure, uses and brand names of Atropine Sulphate.
6. What are anti-tubercular drugs? Classify with examples. Give the structure, chemical name and formulations of Isoniazid.
7. Define and classify antibiotics. Write the structures, chemical name and uses of Chloramphenicol.

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**PART—B**

3×10=30

**Instructions :** (1) Answer **any ten** questions.

(2) Each question carries **three** marks.

(3) Answers should be brief and straight to the point and shall not exceed five simple sentences.

8. Write the principle involved in the limit test for Chlorides.
9. Define the following terms :
  - (a) Titrant
  - (b) Titrant
  - (c) Indicator
10. Write the molecular formula, pharmaceutical formulations, storage and uses of Silver nitrate.
11. Write the structure, chemical name and uses of Phenobarbital.
12. Define Sympathomimetic agents. Write any two sympathomimetic drugs and mention their uses.
13. Write the structure, chemical name, uses and formulations of Captopril.
14. What is Insulin? Mention its various preparations.
15. Give storage conditions, uses and brand names of Diclofenac and Aceclofenac.
16. Write the uses, formulations and brand names of ketokonazole and Fluconazole.
17. State the uses, stability, storage and formulations of Doxycycline.
18. Define anti-neoplastic agents. Give any four examples.



32. Identify the aminoglycoside antibiotic in the below

- (a) streptomycin
- (b) chloramphenicol
- (c) penicillin
- (d) tetracycline

33. Platinum containing anticancer drug is

- (a) pyridine
- (b) cisplatin
- (c) flurouracil
- (d) vinblastin

34. Apparatus used in the limit test for Arsenic is called as \_\_\_\_\_.

35. Methyl orange changes its colour in basic medium from yellow to \_\_\_\_\_.

36. Write the structure of Pyrimidine \_\_\_\_\_.

37. The diuretic drug acts as Aldosterone antagonist is \_\_\_\_\_.

38. The expansion of INH which is used in the treatment of Tuberculosis is \_\_\_\_\_.

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### PART—C

1×20=20

Instructions : (1) Answer all questions.

(2) The question carries one mark.

19.



Identify the above heterocyclic compound

- (a) pyridine
- (b) pyrrole
- (c) pyrimidine
- (d) indole

20. Which of the following is used as General Anaesthetic?

- (a) Propofol
- (b) Thiopental sodium
- (c) Ketamine hydrochloride
- (d) All of the above

21. Which of the following is tricyclic compound?

- (a) Acridine
- (b) Isoquinoline
- (c) Piperazine
- (d) Bezofuran

22. Haloperidol belongs to chemical class

- (a) barbiturate
- (b) butyriphenones
- (c) benzodiazepines
- (d) None of the above

23. Which of the following is also known as Albuterol?

- (a) Naphazoline
- (b) Salbutamol
- (c) Propranolol
- (d) Prali Carvedilol

24. Which of the following is alpha adrenergic blocker?

- (a) Propranolol
- (b) Salbutamol
- (c) Prazosin
- (d) Neostigmines

25. Ferrous sulphate is

- (a) haematinic
- (b) antacid
- (c) acidifying agent
- (d) cathartic

26. Which of the following is beta blocker used in the treatment of hypertension?

- (a) Doxazosin
- (b) Nifedipine
- (c) Captopril
- (d) Propranolol

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27. Which of the following drugs has furfural moiety?

- (a) Acetazolamide
- (b) Frusemide
- (c) Bumetanide
- (d) Spironolactone

28. Which of the following is thiazide diuretic?

- (a) Acetazolamide
- (b) Frusemide
- (c) Bumetanide
- (d) Benzthiazide

29. Metformin is

- (a) anticoagulant
- (b) anti-hyperlipidemic
- (c) anti-hyperglycaemic
- (d) anti-arrhythmic

30. Aspirin is a derivative of

- (a) salicylic acid
- (b) sulphuric acid
- (c) hydrochloric acid
- (d) lactic acid

31. Which of the following is a natural penicillin?

- (a) Penicillin-G
- (b) Cloxacillin
- (c) Methicillin
- (d) Dicloxacillin

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ER20-PH-13T

8003

BOARD DIPLOMA EXAMINATION, (ER-20)

JULY/AUGUST—2024

DPH - FIRST YEAR EXAMINATION

PHARMACOGNOSY THEORY

Time : 3 hours ]

[ Total Marks : 80

**PART—A**

5×6=30

**Instructions :** (1) Answer *any six* questions.

(2) Each question carries **five** marks.

(3) Answers should be comprehensive and the criterion for valuation is the content but not the length of the answer.

1. Mention different systems of classification of crude drugs. Write the merits and demerits of Alphabetical classification. 3+1+1
2. Define Drug Evaluation and explain organoleptic evaluation. 2+3
3. Define Glycosides with examples. Describe about steroidal glycosides. 2+3
4. Define Cardiotonic. Give the biological source, chemical constituents and uses of Digitalis. 2+3
5. Define Carminative. Give the biological source, chemical constituents and uses of Fennel. 2+3
6. Define Diuretics. Give the biological source, chemical constituents and uses of Gokhru. 2+3
7. Give note on (a) Unani and (b) Siddha. 2½+2½

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**PART—B**

3×10=30

**Instructions :** (1) Answer *any ten* questions.

(2) Each question carries **three** marks.

(3) Answers should be brief and straight to the point and shall not exceed five simple sentences.

8. Give any three differences between volatile oils and fixed oils. 3
9. Define Oxytocic? Give the biological source of Ergot. 2+1
10. State the biological source, chemical constituents and uses of Coriander. 3
11. Give biological source and chemical constituents and uses of Senna. 3
12. Define Antiseptics and disinfectants. Give two examples. 2+1
13. Explain about sutures. 3
14. Describe the method of preparation of the following : 1½+1½  
(a) Gutika  
(b) Talla
15. Mention the importance of Essential oils. 3
16. List out the types and characters of dietary fibers. 3
17. Mention the botanical source, chemical constituents and uses of Almond oil. 3
18. Mention the chemical constituents and commercial preparations of Aloe vera gel. 1½+1½

32. Vatika is

- (a) pills
- (b) powder
- (c) syrup
- (d) injection

33. Mentha is also known as

- (a) peppermint
- (b) pectin
- (c) pepper
- (d) catechu

34. Agents which prevent formation of oxygen free radicals are \_\_\_\_\_.

35. Spirulina is obtained from \_\_\_\_\_.

36. Olive oil is expressed from \_\_\_\_\_.

37. Molisch's test is for \_\_\_\_\_.

38. HPLC abbreviation \_\_\_\_\_.

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**Instructions :** (1) Answer all questions.

(2) All questions carry one mark.

19. Drugs obtained from glandular secretions

- (a) insulin
- (b) penicillin
- (c) rice
- (d) digitalis

20. Isolation of streptomycin by

- (a) Alexander
- (b) Alexander Fleming
- (c) Waksman
- (d) Ariyan

21. Classification of crude drugs observed in USP is

- (a) alphabetical
- (b) biological
- (c) chemical
- (d) pharmacological

22. Substitution with manufacture materials

- (a) nutmeg with basswood
- (b) lime with stone
- (c) lead with lid
- (d) lilly with rose

23. Arrangement of cells and tissues evaluated
- (a) histological
  - (b) qualitative
  - (c) chemical
  - (d) biological
24. Which one of the following is volatile oil?
- (a) Rose oil
  - (b) Raspberry
  - (c) Sesame oil
  - (d) Groundnut oil
25. Which one of the following is cardiotonic?
- (a) Neem
  - (b) Turmeric
  - (c) Benzoin
  - (d) Digitalis
26. Castor oil containing important constituents
- (a) ricinoleic acid
  - (b) stearic acid
  - (c) Both (a) and (b)
  - (d) None of the above
27. Hyoscyamus belongs to the family
- (a) Liliaceae
  - (b) solanaceae
  - (c) Lamiaceae
  - (d) fabaceae
28. Acacia belongs to the family *botanical name*
- (a) astragalus gummifer
  - (b) amylopsin
  - (c) amaranth
  - (d) acacia senegal
29. Enzyme present in Papaya is
- (a) papain
  - (b) lopsin
  - (c) pectin
  - (d) resin
30. Common name for gossypium herbaceum is
- (a) cotton
  - (b) common
  - (c) carvone
  - (d) gum
31. Galls obtained from
- (a) uriginea indica
  - (b) tamarindus indica
  - (c) mangifera indica
  - (d) acacia arabica



8004

ER20-PH-14T

8004

BOARD DIPLOMA EXAMINATION, (ER-20)

JULY/AUGUST—2024

DPH — FIRST YEAR EXAMINATION

HUMAN ANATOMY AND PHYSIOLOGY

Time : 3 Hours ]

[ Total Marks : 80

**PART—A**

5×6=30

**Instructions :** (1) Answer *any six* questions.

(2) Each question carries **five** marks.

(3) Answers should be comprehensive and criterion for valuation is the content but not the length of the answer.

1. Write about the different types of epithelial tissues. 5
2. Write about the structure of Sternum. 5
3. Mention the composition of blood. Write the functions of blood. 3+2=5
4. Draw and label the structure of skeletal muscle. Write the properties of muscle. 3+2=5
5. Write about the events that occur in cardiac cycle. 5
6. Write about the exchange of gases in respiratory system. 5
7. Mention the parts of small intestine. Write the functions of small intestine. 2+3=5

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PART-B

3×10=30

Instructions : (1) Answer any ten questions.

(2) Each question carries three marks.

(3) Answers should be brief and straight to the point and shall not exceed five simple sentences.

8. Write about the structure of a neuron. 3
9. Mention the classification of synovial joints. 3
10. What is plasma? Mention different types of plasma proteins. 1+2=3
11. Briefly explain the structure of a lymph node. 3
12. Briefly explain the structure of a lymph node. *Qoing for today* 3
13. Write a short note on ECG. *A1 Anatomy B1 Physiology* 3
14. Define micturition. Write the composition of urine. 1+2=3
15. What is cerebrospinal fluid? Write its functions. 3
16. Write the functions of skin. 3
17. Write the importance of pancreas. 3
18. Name the female sex hormones and write their functions. 1+2=3



~~33.~~ The joint which exhibits all types of movements that are possible is

- (a) wrist joint
- (b) elbow joint
- (c) knee joint
- (d) shoulder joint

34. The structure that is known as the pacemaker of the heart is \_\_\_\_\_.

35. The longest bone in the human skeleton is \_\_\_\_\_.

36. The gland that is called as master gland is \_\_\_\_\_.

37. The  $\text{pH}$  of blood is \_\_\_\_\_.

38. The enzyme that is present in saliva is \_\_\_\_\_.

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**PART—C**

1×20=20

**Instructions :** (1) Answer all questions.

(2) Each question carries **one** mark.

(3) Answer should be single word or single sentence.

~~19.~~ The organelles which are responsible for the synthesis of proteins in the cell are

- (a) lysosomes
- (b) golgi apparatus
- (c) ribosomes
- (d) None of the above

~~20.~~ The inorganic ions which are required for blood clotting are

- (a) calcium
- (b) potassium
- (c) sodium
- (d) magnesium

~~21.~~ The number of cervical vertebrae is

- (a) 12
- (b) 5
- (c) 33
- (d) 7

~~22.~~ Which blood group is known as universal donor?

- (a) O
- (b) A
- (c) AB
- (d) B

23. Purkinje fibres are the structures that are present in
- (a) kidneys
  - (b) liver
  - (c) lungs
  - (d) heart
24. The normal lifespan of Red Blood Cells is
- (a) 90 days
  - (b) 120 days
  - (c) 150 days
  - (d) 180 days
25. The bicuspid valve connects
- (a) left atrium and left ventricle
  - (b) right atrium and right ventricle
  - (c) left atrium and right ventricle
  - (d) left ventricle and right atrium
26. The islets of Langerhans are present in
- (a) kidneys
  - (b) liver
  - (c) lungs
  - (d) pancreas
27. The gastric enzyme pepsin is active in
- (a) Acidic pH
  - (b) Basic pH
  - (c) Neutral pH
  - (d) None of the above

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28. The number of chromosomes in humans is
- (a) 21 pairs
  - (b) 22 pairs
  - (c) 23 pairs
  - (d) 24 pairs
29. The structure that connects a bone with a muscle is called
- (a) neuron
  - (b) tendon
  - (c) ligament
  - (d) axon
30. The location of visual area in the cerebrum is
- (a) anterior
  - (b) posterior
  - (c) right lateral
  - (d) left lateral
31. The appendix is connected to
- (a) oesophagus
  - (b) stomach
  - (c) small intestine
  - (d) large intestine
32. Which gland or glands control(s) the basal metabolic rate?
- (a) Thyroid gland
  - (b) Thyimus gland
  - (c) Adrenal glands
  - (d) Parathyroid glands

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ER20-PH-15T

8005

BOARD DIPLOMA EXAMINATION, (ER-20)

JULY/AUGUST—2024

DPH — FIRST YEAR EXAMINATION

SOCIAL PHARMACY

Time : 3 Hours ]

[ Total Marks : 80

**PART—A**

5×6=30

**Instructions :** (1) Answer any six questions.

(2) Each question carries five marks.

(3) Answers should be comprehensive and criterion for valuation is the content but not the length of the answer.

1. List out the Sustainable Development Goals. 5
2. Discuss the beneficial effects of breast feeding for both the mother and baby. 5
3. Write the advantages and disadvantages of Condom and Diaphragm. 5
4. Write about the causative agent, epidemiology, symptoms and preventive measures of the measles. 5
5. Write about the causative agent, epidemiology, symptoms and preventive measures of COVID-19. 5
6. Define the following terms : 1½+1½+2=5
  - (a) Epidemic
  - (b) Pandemic
  - (c) Quarantine
7. Write the objectives and functions of the National TB control programme. 5

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**PART—B**

3×10=30

**Instructions :** (1) Answer *any ten* questions.

(2) Each question carries **three** marks.

(3) Answers should be brief and straight to the point and shall not exceed five simple sentences.

8. Write the causative agents of any three water borne diseases.
9. Write the objectives of Family Planning.
10. Explain the health effects of Noise exposure.
11. Define Vitamins and classify them.
12. Define Fortification of foods with examples.
13. Write the ill effects of junk food.
14. Define adulteration of food and list out the common adulterants used in food.
15. Define microbiology and classify different types of microorganisms.
16. Define the following terms :
  - (a) Communicable diseases
  - (b) Isolation
17. Write the causative agents of the following :
  - (a) Diphtheria
  - (b) Whooping cough
  - (c) Ebola
18. Define health care system and classify them.

33. The components of Pharmacoeconomics are

- (a) economic
- (b) humanistic
- (c) Both (a) and (b)
- (d) None of the above

34. The name of first-generation IUD is \_\_\_\_\_.

35. The BCG vaccine is administered as a preventive medicine for \_\_\_\_\_.

36. The surface infection 'Trachoma' is caused by \_\_\_\_\_.

37. Morbidity is defined as \_\_\_\_\_.

38. The causative agent for the disease 'Tetanus' is \_\_\_\_\_.

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**PART—C**

1×20=20

**Instructions:** (1) Answer **all** questions.

(2) The question carries **one** mark.

(3) Answer should be single word or single sentence.

19. Social pharmacy deals with the role of medicines from

- (a) social perspective
- (b) scientific perspective
- (c) humanistic perspective
- (d) All of the above

20. If the person is free from internal conflicts, it is a sign of

- (a) physical health
- (b) mental health
- (c) social health
- (d) pathogenesis

21. Following are the indicators of health, **except**

- (a) morbidity indicator
- (b) socio-economic indicator
- (c) genetic indicator
- (d) disability indicator

22. Family planning refers to

- (a) determine the number of children in the family
- (b) avoid unwanted birth
- (c) Both (a) and (b)
- (d) to improve birth rate

23. A woman's reproductive period is roughly from \_\_\_\_ years.

- (a) 18-28
- (b) 20-50
- (c) 15-45
- (d) 21-30

24. In atmosphere, the composition of oxygen is

- (a) 70-12%
- (b) 68-31%
- (c) 50-93%
- (d) 20-93%

25. Which of the following is **not** a fat soluble vitamin?

- (a) Vitamin-A
- (b) Vitamin-B
- (c) Vitamin-D
- (d) Vitamin-E

26. Which among the following is **not** a macronutrient?

- (a) Carbohydrate
- (b) Protein
- (c) Vitamin
- (d) Fat

27. *Mycobacterium leprae* is the causative organism of

- (a) dengue
- (b) chikungunya
- (c) leprosy
- (d) filariasis

28. DOTS is the treatment strategy for

- (a) dengue
- (b) chikungunya
- (c) tuberculosis
- (d) filariasis

29. The disease filariasis is caused by

- (a) *Wuchereria bancrofti*
- (b) *Brugia malayi*
- (c) *Brugia timori*
- (d) All of the above

30. Varicella-zoster virus causes an infection called

- (a) measles
- (b) mumps
- (c) rubella
- (d) chicken pox

31. The triplet vaccine MMR gives protection against the disease

- (a) measles
- (b) mumps
- (c) rubella
- (d) All of the above

32. PHC stands for

- (a) Primary Hospital Centre
- (b) Primary Healthcare Centre
- (c) Public Health Centre
- (d) Prime Human Centre