



Subject : Pharmaceutics

Course : D. Pharmacy

Full Marks : 80

Roll No:

Time : 3 Hours.

PART - C

Answer any TEN out of ELEVEN

[10x3=30]

1. Write short note on fast dissolving tablet, enteric coated tablet, sustained action tablet.
2. Write a note on working of freeze dryer.
3. Write three factors which affect size reduction of drugs?
4. Explain the mechanism of size separation.
5. What are different mechanisms involved in size reduction method?
6. Write down the ideal characteristic of excipients.
7. Write the advantage and disadvantage of plastic container.
8. Write principle of fluidized bed dryer with labelled diagram.
9. Write short note on preservative.
10. Define extraction. Write short note on infusion and decoction.
11. Write common steps involved in extraction process of crude drug.

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PART - A

Multiple Choice Questions

[20x1=20]

1. which of the following is the largest size of capsule?
a. 00
b. 2
c. 000
d. 3
2. The package which comes in contact directly with the formulation is called
a. Primary package
b. Secondary package
c. Tertiary package
d. All of the above
3. what does QA and QC stand for?
a. Quality adjustment and Quality counting
b. Quality assurance and Quality control
c. Quality adjustment and Quality control
d. Quality assurance and Quality counting

4. The word 'Pharmacy' is derived from the Greek word

a. Pharmaces

b. Pharmacia

c. Pharma

d. Pharmakon

5. Which of the following is a sterile formulation?
 - a. Injectables
 - b. Eye ointment
 - c. Eye drop
 - d. All of the above
6. Which of the following is a biphasic dosage form?
 - a. Capsule
 - b. Granules
 - c. Powder
 - d. Emulsion
7. Which of the following is a unit dosage form?
 - a. Dentifrice
 - b. Tablet
 - c. Dusting powder
 - d. Elixir
8. Who is the Father of Pharmacy Education in India?
 - a. R.N. Chopra
 - b. Dr. Nityanand
 - c. Dr. Pk Pradhan
 - d. Mahadeva Lal Schroff
9. Which of the following is an advantage of Novel drug delivery systems?
 - a. Reduced side effects
 - b. Decrease dosing frequency
 - c. Enhanced bioavailability
 - d. All of the above
10. According to IP, coarse powders can pass through sieve no.
 - a. sieve No. 10
 - b. sieve No. 85
 - c. sieve No. 60
 - d. sieve No. 120
11. In Cyclone separator, different size particles are separated by
 - a. Brushing method
 - b. Agitation method
 - c. Centrifugation method
 - d. All of the above
12. Clarification is the term used when the solid content of the product
 - a. Doesn't exceed 1%
 - b. Doesn't exceed 5%
 - c. Doesn't exceed 10%
 - d. All are true
13. Which of the following step is involved in Percolation procedure?
 - a. Imbibition
 - b. packing of percolator
 - c. Size Reduction
 - d. All of the above
14. Which of the following is the first step in sugar coating?

- a. Syrup coating
- b. Polishing
- c. Sealing
- d. sub coating

15. Freeze drying works on the principle of

- a. Sublimation of water from ice phase to gas phase
- b. Liqefaction of ice to water
- c. Evaporation of water
- d. All of the above

16. The power of the body to resist the effects of the invasion of microorganisms is called

- a. Immunity
- b. Antibody formation
- c. Antigen
- d. Phagocytosis

17. The second edition of IP was published in

- a. 1955
- b. 1966
- c. 1985
- d. 1990

18. The hammer mill operates on the principle of

- a. Attrition
- b. Impact
- c. Both a & b
- d. None of the above

19. The first international pharmacopoeia was published by

- a. India
- b. World Health Organization
- c. Japan
- d. Britain

20. Elixirs are

- a. Liquid dosage form
- b. Semi solids dosage form
- c. solid dosage form
- d. None of the above

PART - B

Answer any SIX out of SEVEN

[6x5=30]

1. Write a note on principle, working of triple roll mill with labelled diagram.
2. Write a note on construction, working of silverson emulsifier mixer with labelled diagram.
3. Write a note on principle, working of ball mill with labelled diagram.
4. What is tablet coating? Write short note on sugar coating tablet?
5. Write in detail the various grades of powder official in the pharmacopoeia.

6. What are the different types of pollution? Explain their cause and management.
7. Mention different types of vitamins and diseases associated with their deficiency.

PART - C

Answer any **TEN** out of **ELEVEN**

[10x3=30]

1. Write a short note on management of air pollution.
2. write a short note on drug misuse and drug abuse.
3. Write down the differences between active and passive immunity.
4. Explain about the importance of epidemiology
5. What is the importance of mother and child health care system?
6. What is adulteration food? Write down the negative effect of food adulteration.
7. What is malnutrition? Write down the differences between micro and macro nutrients.
8. Write down the difference between gram positive and gram negative bacteria.
9. What do you mean by dietary supplement? Explain its importance with examples.
10. What is millennium development goal? Write down the different goals.
11. Briefly discuss about different modes of transmission of disease.



ARKAJAIN
University
Jharkhand

1ST Year Part-I End Term Examination: 2021-22.

Subject : Social Pharmacy

Course : D. Pharmacy

Full Marks : 80

Roll No:

Time : 3 Hours.

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PART - A

Multiple Choice Questions

[20x1=20]

1. Chicken pox is contaminated by:
 - a. Air
 - b. Direct contact
 - c. Both (a) & (b)
 - d. All
2. Active artificial immunity is acquired from:
 - a. Vaccine
 - b. Disease recovery
 - c. Illness
 - d. None of the above
3. The milk produced from mother in between 4-10 days is called as:
 - a. Colostrum
 - b. Transitional milk
 - c. Mature milk
 - d. None of the above
4. which is not a solid disposal method to reduce pollution:
 - a. Land fill
 - b. Combustion
 - c. Composting
 - d. Throw the solid wastes on the road

5. What is the percentage of water inside our body ?
 a. 60
 b. 90
 c. 70
 d. 500
6. Role of calcium inside our body ?
 a. To maintain bone health
 b. To maintain water balance
 c. To promote mental health
 d. None of these
7. Spermicides are used for which reason?
 a. To kill the sperm
 b. To protect the sperm
 c. To reduce the motility
 d. None of the above
8. Which is not a biodegradable substance?
 a. Pulses
 b. Fruit
 c. Iron
 d. All
9. Which is a bio medical waste?
 a. Tissue waste
 b. Dust particle
 c. Broken glass
 d. All
10. Which is an infectious waste?
 a. Tissues from surgery
 b. Broken vehicles
 c. Both
 d. None of these
11. When milk is adulterated with starch, this is called which type of adulteration?
 a. Yes
 b. No
 c. Both
 d. None of the above
12. Osteoporosis is caused due to deficiency of:
 a. Calcium
 b. Magnesium
 c. Iron
 d. None of the above
13. Anemia is caused due to deficiency of:
 a. Iron
 b. Water
 c. Calcium
 d. Fibers
14. What is not a occupational illness.
- a. Respiratory disease due to smoke
 b. Mumps
 c. Injury during weight lifting at work place
 d. Deafness due to sound of machines
15. What is an example of biological hazards:
 a. virus
 b. needle
 c. broken glass
 d. dust particle
16. Colostrum is released from mother is a rich source of :
 a. Antigen
 b. Antibody
 c. Vaccine
 d. none of the above
17. Colostrum produce from which day of child birth:
 a. 1st day
 b. 4-10 days
 c. 30 days
 d. none of the above
18. What is Osteoporosis?
 a. Pore formation due to degradation of bone
 b. Strong bone
 c. Calcium accumulation
 d. None of above
19. Which is a food borne disease?
 a. UTI infection
 b. dehydration
 c. Malaria
 d. Chicken pox
20. Which vitamin is also known as cyanocobalamin?
 a. Vit-B7
 b. Vit-B 6
 c. Vit- B 12
 d. Vit-A
- PART - B**
- Answer any SIX out of SEVEN** [6x5=30]
1. What is food adulteration? Explain about the types of adulteration with examples.
 2. What do you mean by demographic study? Explain various methods of family planning.
 3. Write a note on mumps. Briefly discuss about various roles and responsibility of a pharmacist.
 4. Briefly discuss about importance of microbiology in pharmacy field.
 5. Write down the differences between prokaryotes and eukaryotes.



Subject : Pharmacognosy

Course : D. Pharmacy

Full Marks : 80

Roll No:

Time : 3 Hours.

5. Explain briefly different forms of calcium oxalate crystals
6. Define Carminatives. Briefly describe the crude drug Fennel and Asafoetida.
7. Describe briefly any two systems of medicines related to pharmacognosy.

PART - C

Answer any TEN out of ELEVEN

[10x3=30]

1. Define Pharmaceutical Aids. Classify them briefly with examples
2. Describe shortly about morphological evaluation of crude drugs
3. Describe any three parameters of microscopical evaluation of crude drugs
4. Briefly mention biological source, chemical constituents, and uses and of the following crude drugs (Any 3)
 - a.) Clove
 - b.) Coriander
 - c.) Acacia
 - d.) Bees wax
5. Briefly explain the various chemical tests for identification of Aloes.
6. Describe briefly various chemical tests for identification of Alkaloids.
7. Briefly mention the chemical test of the following crude drug (Any 2)
 - a) Castor oil
 - b) Isapgol
 - c) Cinnamon
8. Briefly mention biological source, chemical constituents, of the following crude drugs (Any 2)
 - a.) Tragacanth
 - b.) Lanolin
 - c.) Gelatin
9. Define Cardio tonics. Briefly explain Digitalis.
10. Define the following terms: -
 - a) Astringent
 - b) Laxatives
 - c) Carminatives.
11. Briefly explain Ayurveda System of Medicine.

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PART - A

Multiple Choice Questions

[20x1=20]

1. In Egypt who had written 800 formulae and 700 drugs?
 - a. Papyrus Ebers
 - b. Astanga
 - c. Sushruta
 - d. None of the above
2. Evaluation of drugs by colour, odour, taste, size and shape refer to which type of evaluation?
 - a. Morphological
 - b. Microscopical
 - c. Analytical
 - d. Chemical
3. During which system of medicine Book of Healing was written?
 - a. Orient
 - b. Ayurveda
 - c. Unani
 - d. Western
4. Which of the following chemical tests considered for Aloes?
 - a. Bromine test
 - b. Borax Test
 - c. Nitrous Acid test
 - d. All of the above

5. Which term is used for orient system of medicine?
 a. Samhita
 b. Kampoh
 c. Both (a) & (b)
 d. All
6. Which of the following are Parameters of Physical Evaluation?
 a. Viscosity
 b. Solubility
 c. Melting Point
 d. All of the above
7. Which one of the following source dried opium is obtained?
 a. Latex
 b. Roots
 c. Flowers
 d. Fruits
8. Which of the following are the synonyms of Rauwolfia?
 a. Snake -root
 b. Sarpagandha
 c. Both (a) & (b)
 d. None
9. Which of the following solvents used to detect fixed oils?
 a. Benzene
 b. Petroleum ether
 c. Both (a) & (b)
 d. None
10. Which of the following categorized as Pharmaceutical Aids?
 a. Diluents
 b. Sweeteners
 c. Emulsifying Agents
 d. All of the above
11. The plant Black Catechu belongs to the family of
 a. Euphorbiaceae
 b. Leguminosae
 c. Loganiaceae
 d. None
12. Adulteration is classified as
 a. Intentional
 b. Unintentional
 c. Both (a) & (b)
 d. None
13. Which of the following reagent used for detection of alkaloids?
 a. Mayer's reagent
 b. Hager's reagent
 c. Both (a) & (b)
 d. None
14. Which one of following is not an organo-phosphorous compounds?
 a. DDT
 b. Malathione
 c. Carbamates
 d. None

15. Which one of the following is study of basic resources of medicine from nature?
 a. Pharmacology
 b. Pharmaceutics
 c. Social Pharmacy
 d. Pharmacognosy
16. How many types stomata are classified?
 a. 5
 b. 4
 c. 3
 d. 6
17. Which of the following used as adulterants for Senna?
 a. Dog Senna
 b. Palthé Senna
 c. Arabian Senna
 d. All
18. Which of the following chemical tests considered for Aloes?
 a. Bromine test
 b. Borax Test
 c. Nitrous Acid test
 d. All
19. Which of the following reagents used to detect presence of sugars?
 a. Fehling's
 b. Barfoed's
 c. Benedict's
 d. All
20. Which of the following solvents is used to detect fixed oils?
 a. Benzene
 b. Petroleum ether
 c. Both (a) & (b)
 d. None

PART - B

[6x5=30]

Answer any SIX out of SEVEN

1. Define Adulterants. Briefly explain classification of Adulterants.
2. Briefly explain about classification of stomata.
3. Define Crude Drug. Briefly elaborate classification of crude drugs.
4. Briefly mention biological source, chemical constituents, and uses and Adulterants of the following crude drugs (Any 2)
 a.) Isapgol b.) Rauwolfia c.) Cardamom

- Define and classify Hypoglycaemic agent. Write the chemistry of Metformin and Glibenclamide.
- Define antibiotics. Discuss the chemistry of Amoxicillin and Chloramphenicol.

PART - C

Answer any TEN out of ELEVEN

[10x3=30]

- Write down the principal and method of gravimetric analysis.
- Write short note on impurities in pharmaceuticals.
- Write short note on medicinal gases.
- Write Down the classification of Adrenergic Antagonist, chemical name, uses, storage condition, pharmaceutical formulation of Tolazoline and Phentolamine.
- Draw the two structures of each drug-containing furan, pyrrole and thiophene.
- Write down the chemical name, chemical structure, uses, stability and storage condition, pharmaceutical formulation and brand name of Dopamine.
- Define malaria and anti-malarial drug and discuss about the chemistry of Chloroquine Phosphate.
- Define TB and write down about the INH.
- Write down about the insulin and its preparation.
- Define Cholinergic blocking agent and write the chemistry of atropine sulphate.
- Write down the uses of Propofol, Penicillin, Para amino salicylic acid and Norfloxacin.

1st Year Part-I End Term Examination: 2021-22.

Subject : Pharmaceutical Chemistry **Roll No:**
Course : D. Pharmacy
Full Marks : 80 **Time : 3 Hours.**

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PART - A

Multiple Choice Questions

[20x1=20]

- Which one is a catecholamine neurotransmitter?
a. Amphetamine b. Terbutaline
c. Dopamine d. Naphazoline
- Myasthenia gravis is treated by which drug?
a. Acetylcholine b. Pralidoxime
c. Neostigmine d. Tacrine
- Which is a vasodilator
a. Tolazoline b. Phentolamine
c. Atenolol d. Carvedilol
- Which drug caused bronchodilation?
a. Ephedrine b. Metaraminol
c. Frusemide d. Xipamide

5. Nitrazepam is used to treat which disease?
 a. Insomnia
 b. Hypertension
 c. Hypotension
 d. Angina
6. Which drug is used in Polycystic ovary Syndrome?
 a. Glimpiride
 b. Metformin
 c. Insulin
 d. Digitalis purpurea
7. Which drug inhibit conversion of Angiotensin I to Angiotensin II?
 a. Propranolol
 b. Ramipril
 c. Verapamil
 d. None
8. Which one is non-selective beta-adrenergic antagonist?
 a. Propranolol
 b. Norfloxacin
 c. Ramipril
 d. Ofloxacin
9. Glimpiride can be used in combination with?
 a. Insulin
 b. None
 c. Metformin
 d. Both
10. Which drug is used to as prophylaxis in various types of seizures?
 a. Phenytoin Sodium
 b. Paracetamol
 c. Amoxicillin
 d. Quinidine
11. Carbon Dioxide is use for?
 a. Anoxia
 b. Hypoxia
 c. Cryotherapy
 d. Poisoning
12. Bleaching Powder is?
 a. Reducing Agent
 b. Oxidizing agent
 c. Both (a) & (b)
 d. All
13. Which drug is use in pulmonary multi-drug resistant tuberculosis?
 a. Bedaquiline
 b. None
 c. Delamanid
 d. Both
14. Brand name of Isoniazid?
 a. Nydrazid
 b. Amino-Pas
 c. Acutate
 d. Kemiron
15. Pharmaceutical Formulation of Griseofulvin is?
 a. Tablet
 b. Capsule
 c. Syrup
 d. Cream
16. Primaquine phosphate is used for treating malaria caused by?
 a. P. ovale
 b. P. vivax
 c. Both (a) & (b)
 d. All
17. Brand name of Haloperidol is?
 a. Risperdal
 b. Haldol
 c. ZyPREXA
 d. Latuda
18. What is the use of Calcium Carbonate?
 a. Abrasive
 b. Denture cleaner
 c. Adhesive
 d. Mouthwash
19. Method of minimizing errors
 a. Cross check
 b. Blank Determination
 c. Calibration
 d. All
20. Gold determination of oral iron therapy is?
 a. Ferrous fumarate
 b. Ferric ammonium citrate
 c. Ferrous Ascorbate
 d. Ferrous sulfate
- PART - B**
- Answer any SIX out of SEVEN** [6x5=30]
- Define Antacid. Write down the pharmaceutical formulation, market preparation, storage condition and uses of Aluminium Hydroxide gel, Magnesium Hydroxide, Sodium bicarbonate and calcium carbonate.
 - Explain the fundamental of Volumetric Analysis and discuss about different type of volumetric analysis.
 - Discuss the classification of Anaesthesia, chemical name, chemical structure, uses, stability and storage condition, pharmaceutical formulation, and brand name of Thiopental Sodium and Ketamine Hydrochloride.
 - Discuss classification of Cholinergic and Anticholinergic Drugs, chemical name, chemical structure, uses, stability and storage condition, pharmaceutical formulation, and brand name of Thiopental Sodium and Ketamine Hydrochloride.
 - Discuss Nomenclature of organic chemical system with particular reference to heterocyclic compounds containing up to three rings.

PART - C

Answer any TEN out of ELEVEN

[10x3=30]

1. Briefly discuss about the synovial joints.
2. Briefly describe about the function of Neurons
3. What is mituration process explain it's functions
4. What is menstrual cycle?
5. What is function of kidney?
6. What is Joints ? Define the types of joints.
7. Discuss the various types of sense organs.
8. Define the process of fertilization.
9. Give short notes of Mitochondria.
10. Draw the neat labeled diagram of animal cell.
11. Discuss about the secondary sexual organ's development .



ARKAJAIN
University
Jharkhand

1ST Year Part-I End Term Examination: 2021-22.

Subject : Human Anatomy and Physiology

Course : D. Pharmacy

Full Marks : 80

Roll No:

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PART - A

Multiple Choice Questions

[20x1=20]

1. Adult human blood pressure level is
 - a. 100mm/Hg
 - b. 140mm/Hg
 - c. 120/80 mm/Hg
 - d. 180mm/Hg
2. Blood is a
 - a. Muscle tissue
 - b. Fluid connective tissue
 - c. Skeletal muscle
 - d. None of these
3. Sleep center area present at
 - a. Hypothalamus
 - b. Medulla oblongata
 - c. Cerebrum
 - d. Frontal brain
4. Inner lining of uterus known as
 - a. Myometrium
 - b. Skeletal muscle
 - c. Endometrium
 - d. None of these

5. Saliva secrete from which gland
 a. Thyroid
 c. Parotid
 b. Hypothalamus
 d. Adrenal gland
6. Which one is the power house of the cell
 a. Liposome
 c. Nucleolus
 b. Cell membrane
 d. Mitochondria
7. Which one is the female sex hormone
 a. Estrogen
 c. LH
 b. Insulin
 d. Androgen
8. Nature of animal cell membrane
 a. Restricted
 c. Semi permeable
 b. Not permeable
 d. Easily permeable
9. Major component of bone
 a. Talc
 c. magnesium
 b. Calcium
 d. Minerals
10. Which one is the example of fixed joint
 a. skull
 c. Ball-socket
 b. hinge
 d. synovial
11. Synovial cavity secrete what
 a. Androgen
 c. Progesterone
 b. synovial fluid
 d. Estrogen
12. Axon and dendrites are part of
 a. Visceral muscle
 c. Neuron
 b. Kidney
 d. Cardiac muscle
13. The total number of bones present in body is
 a. 201
 c. 209
 b. 206
 d. 333
14. Ovary releases egg once in
 a. Ten days
 c. Month
 b. 15 Days
 d. Week
15. In female ovulation take place in a regular menstrual cycle on
 a. 15 Days
 c. 20 Days
 b. 14 Days
 d. 28 Days
16. The light rays enter through
 a. Iris
 c. Retina
 b. Cornea
 d. None of these
17. Rhodopsin is a pigment concerned with
 a. Pupil
 c. Retina
 b. Cornea
 d. None of these
18. The basic unit of kidney is
 a. Loop of henle
 c. Nephron
 b. Glomerulus
 d. None of these
19. The tympanic membrane known as
 a. Auricle
 c. Ear drum
 b. Internal ear
 d. None of these
20. Synovial joint includes
 a. Mandible joint
 c. Hip joint
 b. Knee joint
 d. Joints of skull

PART - B

Answer any SIX out of SEVEN

[6x5=30]

1. What is cell ? Define the plant cell & Animal cell with neat labeled diagram
2. What is reproduction ? Discuss about the female reproductive organ with it's function
3. What is Digestion ? Write down the process of food
4. Define the mechanism of Respiration and function of Alveoli
5. Briefly explain about the Male reproductive system
6. Define sense organ & explain about the mechanism of vision
7. Define blood explain various functional aspects of blood