







- **Human Anatomy & Physiology**
 - **Pharmacology**
 - **Pharmacotherapeutics**







PLAY STORE 社 PHARMACY MOBILE APP डाउनलोड करें



Paper 2 Subjects: Human Anatomy & Physiology, Pharmacology, Pharmacotherapeutics

Instructions:

- 1. **Total Questions:** 150
- 2. Total Marks: 150
- 3. **Duration:** [3 Hours]
- 4. This paper is divided into the following sections:
 - Section A: Human Anatomy & Physiology (50 Marks)
 - Section B: Pharmacology (50 Marks)
 - Section C: Pharmacotherapeutics (50 Marks)
- 5. Answer all questions in each section.

Section A: Human Anatomy & Physiology (50 Questions, 50 Marks)

- 1. What is the primary function of the skeletal system?
- a) To regulate body temperature
- b) To support and protect body organs
- c) To facilitate digestion
- d) To produce hormones

Answer: b) To support and protect body organs

Explanation: The skeletal system provides structural support and protection for vital organs.

- 2. Which part of the brain is responsible for higher cognitive functions such as reasoning and planning?
- a) Medulla oblongata
- b) Cerebellum
- c) Cerebrum
- d) Pons

Answer: c) Cerebrum

Explanation: The cerebrum is involved in higher cognitive functions including reasoning, planning, and sensory processing.

3. What type of joint is found in the knee?

- a) Hinge joint
- b) Ball-and-socket joint
- c) Pivot joint
- d) Gliding joint

Answer: a) Hinge joint

Explanation: The knee is a hinge joint, allowing for flexion and extension.

4. Which organ is responsible for the production of insulin?

- a) Liver
- b) Pancreas
- c) Kidney
- d) Stomach

Answer: b) Pancreas

Explanation: The pancreas produces insulin, which regulates blood glucose levels.

5. What is the function of red blood cells?

- a) To fight infections
- b) To carry oxygen to tissues
- c) To aid in blood clotting
- d) To transport nutrients

Answer: b) To carry oxygen to tissues

Explanation: Red blood cells are primarily responsible for transporting oxygen from the lungs to tissues throughout the body.

6. The term 'homeostasis' refers to:

- a) The process of cell division
- b) The maintenance of a stable internal environment
- c) The breakdown of food in the digestive tract
- d) The synthesis of proteins

Answer: b) The maintenance of a stable internal environment

Explanation: Homeostasis is the process of maintaining a stable internal environment despite external changes.

7. What is the main role of the respiratory system?

- a) To digest nutrients
- b) To exchange gases between the body and the environment
- c) To regulate hormone levels
- d) To produce red blood cells

Answer: b) To exchange gases between the body and the environment

Explanation: The respiratory system facilitates the exchange of oxygen and carbon dioxide.

8. Which muscle is primarily responsible for the movement of the arm?

- a) Deltoid
- b) Biceps brachii
- c) Triceps brachii
- d) Pectoralis major

Answer: b) Biceps brachii

Explanation: The biceps brachii is responsible for flexing the arm at the elbow.

9. What type of tissue is responsible for transmitting electrical impulses in the body?

- a) Epithelial tissue
- b) Connective tissue
- c) Nervous tissue
- d) Muscular tissue

Answer: c) Nervous tissue

Explanation: Nervous tissue is responsible for transmitting electrical impulses throughout the body.

10. The 'afferent' pathway in the nervous system is responsible for:

- a) Sending signals from the central nervous system to muscles
- b) Sending sensory information to the central nervous system
- c) Processing and interpreting sensory information
- d) Coordinating voluntary movements

DPEE Solved Sample Paper-2

D.Pharma Exit Exam 2024

Answer: b) Sending sensory information to the central nervous system

Explanation: Afferent pathways carry sensory information to the central nervous system.



11. Which hormone regulates metabolism and is produced by the thyroid gland?

- a) Insulin
- b) Adrenaline
- c) Thyroxine
- d) Cortisol

Answer: c) Thyroxine

Explanation: Thyroxine, produced by the thyroid gland, regulates metabolism.

12. The 'dorsal' side of the human body refers to the:

- a) Front
- b) Back
- c) Side
- d) Top

Answer: b) Back

Explanation: The dorsal side is the back or posterior side of the body.

13. Which of the following is NOT a function of the liver?

- a) Producing bile
- b) Detoxifying harmful substances
- c) Regulating blood sugar levels
- d) Absorbing nutrients from the intestines

Answer: d) Absorbing nutrients from the intestines

Explanation: The liver does not absorb nutrients; this function is performed by the intestines.

14. What type of circulation carries oxygen-rich blood from the heart to the rest of the body?

- a) Pulmonary circulation
- b) Systemic circulation
- c) Coronary circulation
- d) Lymphatic circulation

Answer: b) Systemic circulation

Explanation: Systemic circulation carries oxygen-rich blood from the heart to the rest of the body.

15. Which structure in the cell is responsible for producing energy in the form of ATP?

- a) Nucleus
- b) Mitochondria
- c) Ribosomes
- d) Endoplasmic reticulum

Answer: b) Mitochondria

Explanation: Mitochondria are known as the powerhouses of the cell, producing ATP through cellular respiration.

16. What is the primary function of the small intestine?

- a) To absorb nutrients from food
- b) To store waste products
- c) To produce digestive enzymes
- d) To break down food into chyme

Answer: a) To absorb nutrients from food

Explanation: The small intestine is primarily responsible for nutrient absorption.

17. The term 'systole' refers to:

- a) The relaxation phase of the heart
- b) The contraction phase of the heart
- c) The phase when the heart fills with blood
- d) The phase when blood pressure is lowest

Answer: b) The contraction phase of the heart

Explanation: Systole is the phase of the cardiac cycle when the heart muscle contracts and pumps blood.

18. What is the primary role of the integumentary system?

- a) To produce hormones
- b) To protect the body from external damage
- c) To regulate body temperature
- d) To store minerals

Answer: b) To protect the body from external damage

Explanation: The integumentary system, including the skin, protects the body from external damage and pathogens.

19. What is the function of the lymphatic system?

- a) To transport oxygen to the tissues
- b) To filter and return excess fluid to the bloodstream
- c) To digest food
- d) To produce hormones

Answer: b) To filter and return excess fluid to the bloodstream

Explanation: The lymphatic system helps in filtering and returning excess interstitial fluid to the bloodstream.

20. The 'proximal' term in anatomy refers to:

- a) The part of the body further from the center
- b) The part of the body closer to the center
- c) The top part of the body
- d) The lower part of the body

Answer: b) The part of the body closer to the center

Explanation: Proximal refers to a position closer to the center of the body or point of attachment.

DPEE Solved Sample Paper-2

D.Pharma Exit Exam 2024



21. Which part of the body contains the greatest number of sweat glands?

- a) Back
- b) Palms of the hands
- c) Soles of the feet
- d) Abdomen

Answer: b) Palms of the hands

Explanation: The palms of the hands and soles of the feet have the highest concentration of sweat glands.

22. The 'axial skeleton' includes:

- a) The limbs and their attachments
- b) The skull, vertebral column, and rib cage
- c) The pelvis and shoulder girdle
- d) The arm and leg bones

Answer: b) The skull, vertebral column, and rib cage

Explanation: The axial skeleton comprises the skull, vertebral column, and rib cage.

23. What type of connective tissue stores fat in the body?

- a) Adipose tissue
- b) Cartilage
- c) Bone
- d) Blood

Answer: a) Adipose tissue

Explanation: Adipose tissue stores fat and provides insulation and cushioning.

24. The 'sacral' region of the vertebral column is located:

- a) In the neck
- b) In the upper back
- c) In the lower back
- d) At the base of the spine

Answer: d) At the base of the spine

Explanation: The sacral region is located at the base of the spine, between the lumbar and coccygeal regions.

25. Which organ system is responsible for producing and releasing hormones into the bloodstream?

- a) Digestive system
- b) Endocrine system
- c) Respiratory system
- d) Muscular system

Answer: b) Endocrine system

Explanation: The endocrine system produces and releases hormones that regulate various bodily functions.

26. What is the primary function of the 'pharynx'?

- a) To absorb nutrients
- b) To filter air and conduct it to the larynx
- c) To produce digestive enzymes
- d) To pump blood through the body

Answer: b) To filter air and conduct it to the larynx

Explanation: The pharynx filters and conducts air from the nasal cavity to the larynx and food to the esophagus.

27. What type of blood vessel carries oxygen-rich blood away from the heart?

- a) Veins
- b) Arteries
- c) Capillaries
- d) Venules

Answer: b) Arteries

Explanation: Arteries carry oxygen-rich blood from the heart to the rest of the body.

28. Which component of blood is primarily responsible for clotting?

- a) Red blood cells
- b) White blood cells
- c) Platelets
- d) Plasma

Answer: c) Platelets

Explanation: Platelets play a key role in blood clotting and preventing bleeding.

29. The 'stratum corneum' is a layer found in which part of the body?

- a) Dermis
- b) **Epidermis**
- c) Hypodermis
- d) Subcutaneous tissue

Answer: b) Epidermis

Explanation: The stratum corneum is the outermost layer of the epidermis, consisting of dead skin cells.

30. What is the role of the 'alveoli' in the lungs?

- a) To produce mucus
- b) To exchange gases between air and blood
- c) To regulate airflow
- d) To warm the air entering the lungs

Answer: b) To exchange gases between air and blood

Explanation: Alveoli are tiny air sacs in the lungs where gas exchange occurs between air and blood.

DPEE Solved Sample Paper-2

D.Pharma Exit Exam 2024



31. Which type of muscle tissue is involuntary and found in the walls of internal organs?

- a) Skeletal muscle
- b) Cardiac muscle
- c) Smooth muscle
- d) Striated muscle

Answer: c) Smooth muscle

Explanation: Smooth muscle tissue is involuntary and found in the walls of internal organs like the intestines and blood vessels.

32. What is the main function of the 'large intestine'?

- a) To absorb nutrients from food
- b) To produce digestive enzymes
- c) To absorb water and form feces
- d) To digest proteins

Answer: c) To absorb water and form feces

Explanation: The large intestine absorbs water from the remaining indigestible food matter and forms feces.

33. What is the primary function of the 'hypothalamus'?

- a) To regulate heartbeat
- b) To control body temperature and hunger
- c) To process visual information
- d) To coordinate muscle movements

Answer: b) To control body temperature and hunger

Explanation: The hypothalamus regulates vital functions including body temperature, hunger, and thirst.

34. Which gland produces adrenaline?

- a) Thyroid gland
- b) Adrenal gland
- c) Pituitary gland
- d) Pancreas

Answer: b) Adrenal gland

Explanation: The adrenal glands produce adrenaline, which helps the body respond to stress.

35. Which structure in the cell is responsible for protein synthesis?

- a) Mitochondria
- b) Ribosomes
- c) Nucleus
- d) Golgi apparatus

Answer: b) Ribosomes

Explanation: Ribosomes are responsible for synthesizing proteins in the cell.

36. What is the function of the 'trachea'?

- a) To filter and warm air
- b) To conduct air to the lungs
- c) To exchange gases
- d) To produce mucus

Answer: b) To conduct air to the lungs

Explanation: The trachea is a tube that conducts air from the larynx to the bronchi of the lungs.

37. Which part of the brain controls balance and coordination?

- a) Cerebrum
- b) Medulla oblongata
- c) Cerebellum
- d) Hypothalamus

Answer: c) Cerebellum

Explanation: The cerebellum is responsible for maintaining balance and coordinating movement.

38. What is the primary role of 'osteoblasts' in bone tissue?

- a) To break down bone
- b) To produce new bone matrix
- c) To store calcium
- d) To support bone structure

Answer: b) To produce new bone matrix

Explanation: Osteoblasts are cells that produce new bone matrix and are involved in bone formation.

39. Which type of connective tissue is responsible for providing support and cushioning around joints?

- a) Adipose tissue
- b) Cartilage
- c) Bone
- d) Blood

Answer: b) Cartilage

Explanation: Cartilage provides support and cushioning around joints and in various other parts of the body.

40. What does the term 'anatomical position' refer to?

- a) The position of the body lying on its back
- b) The position of the body standing upright with arms at the sides and palms facing forward
- c) The position of the body sitting with knees bent
- d) The position of the body lying on its stomach

Answer: b) The position of the body standing upright with arms at the sides and palms facing forward

Explanation: The anatomical position is a standardized posture used for anatomical reference.

DPEE Solved Sample Paper-2

D.Pharma Exit Exam 2024



41. The 'epidermis' is the outermost layer of which organ?

- a) Liver
- b) Lung
- c) Skin
- d) Heart

Answer: c) Skin

Explanation: The epidermis is the outermost layer of the skin.

42. What is the primary function of the 'spleen'?

- a) To filter and remove old red blood cells
- b) To produce insulin
- c) To regulate blood pressure
- d) To digest proteins

Answer: a) To filter and remove old red blood cells

Explanation: The spleen filters and removes old or damaged red blood cells from the bloodstream.

43. Which type of muscle tissue is striated and found in the heart?

- a) Skeletal muscle
- b) Smooth muscle
- c) Cardiac muscle
- d) Epithelial muscle

Answer: c) Cardiac muscle

Explanation: Cardiac muscle tissue is striated and found in the heart, responsible for pumping blood.

44. The 'pericardium' is a membrane that surrounds which organ?

- a) Lungs
- b) Brain
- c) Heart
- d) Liver

Answer: c) Heart

Explanation: The pericardium is a double-walled membrane that surrounds and protects the heart.

45. What is the primary function of the 'renal pelvis'?

- a) To filter blood
- b) To store and transport urine from the kidneys to the bladder
- c) To produce urine
- d) To regulate blood pressure

Answer: b) To store and transport urine from the kidneys to the bladder

Explanation: The renal pelvis collects urine from the kidneys and channels it to the bladder.

46. Which layer of the skin contains blood vessels and nerves?

- a) Epidermis
- b) Dermis
- c) Hypodermis
- d) Subcutaneous layer

Answer: b) Dermis

Explanation: The dermis contains blood vessels, nerves, and connective tissue.

47. The 'sagittal plane' divides the body into:

- a) Left and right halves
- b) Upper and lower halves
- c) Front and back halves
- d) External and internal halves

Answer: a) Left and right halves

Explanation: The sagittal plane divides the body into left and right sections.

48. What is the function of the 'corpus callosum'?

- a) To control motor movements
- b) To connect the left and right cerebral hemispheres
- c) To regulate hormone levels
- d) To process sensory information

Answer: b) To connect the left and right cerebral hemispheres

Explanation: The corpus callosum is a bundle of nerve fibers that connects the two hemispheres of the brain.

49. Which type of joint allows for the widest range of movement?

- a) Hinge joint
- b) Ball-and-socket joint
- c) Pivot joint
- d) Gliding joint

Answer: b) Ball-and-socket joint

Explanation: Ball-and-socket joints, such as the shoulder and hip, allow for a wide range of movement.

50. The 'medullary cavity' is found in which type of bone?

- a) Flat bone
- b) Irregular bone
- c) Long bone
- d) Sesamoid bone

Answer: c) Long bone

Explanation: The medullary cavity is found in long bones and is where bone marrow is located.



Section B: Pharmacology (50 Questions, 50 Marks)

1. What is the primary action of beta-blockers?

- a) Increase heart rate
- b) Decrease heart rate and blood pressure
- c) Dilate blood vessels
- d) Increase blood sugar levels

Answer: b) Decrease heart rate and blood pressure

Explanation: Beta-blockers primarily work by decreasing heart rate and blood pressure, which helps in managing conditions like hypertension and angina.

2. Which class of drugs is commonly used to treat bacterial infections?

- a) Antihypertensives
- b) Anticoagulants
- c) Antibiotics
- d) Analgesics

Answer: c) Antibiotics

Explanation: Antibiotics are used to treat infections caused by bacteria.

3. What is the mechanism of action of ACE inhibitors?

- a) Blocking beta-adrenergic receptors
- b) Inhibiting the angiotensin-converting enzyme
- c) Enhancing insulin sensitivity
- d) Increasing blood clotting

Answer: b) Inhibiting the angiotensin-converting enzyme

Explanation: ACE inhibitors work by blocking the enzyme that converts angiotensin I to angiotensin II, leading to reduced blood pressure.

4. Which of the following is a common side effect of opioids?

- a) Constipation
- b) Diarrhea
- c) Insomnia
- d) Weight loss

Answer: a) Constipation

Explanation: Opioids frequently cause constipation due to their effect on the gastrointestinal tract.

5. What is the primary use of statins?

- a) To manage diabetes
- b) To lower cholesterol levels
- c) To treat hypertension
- d) To relieve pain

Answer: b) To lower cholesterol levels

Explanation: Statins are used to reduce cholesterol levels and lower the risk of cardiovascular disease.

6. Which drug class is used to treat acid reflux and ulcers?

- a) **Antihistamines**
- b) Proton pump inhibitors
- c) Anticoagulants
- d) Antifungals

Answer: b) Proton pump inhibitors

Explanation: Proton pump inhibitors reduce stomach acid production, helping to treat acid reflux and ulcers.

7. What is the primary action of diuretics?

- a) Increase blood pressure
- b) Reduce blood volume
- c) Increase blood sugar
- d) Improve liver function

Answer: b) Reduce blood volume

Explanation: Diuretics work by increasing urine output, which helps reduce blood volume and lower blood pressure.

8. Which of the following drugs is an example of a non-steroidal anti-inflammatory drug (NSAID)?

- a) Acetaminophen
- b) Ibuprofen
- c) Prednisone
- d) Metformin

Answer: b) Ibuprofen

Explanation: Ibuprofen is an NSAID used to reduce inflammation, pain, and fever.

9. What is the mechanism of action of beta-lactam antibiotics?

- a) Inhibition of bacterial cell wall synthesis
- b) Inhibition of protein synthesis
- c) Disruption of DNA replication
- d) Inhibition of folic acid synthesis

Answer: a) Inhibition of bacterial cell wall synthesis

Explanation: Beta-lactam antibiotics, such as penicillin, inhibit the synthesis of bacterial cell walls, leading to bacterial cell death.

10. Which drug class is used to manage Type 2 diabetes by increasing insulin sensitivity?

- a) Antihypertensives
- b) Sulfonylureas
- c) Biguanides
- d) Anticoagulants

Answer: c) Biguanides

Explanation: Biguanides, such as metformin, work by increasing insulin sensitivity and lowering blood sugar levels in Type 2 diabetes.



11. What is the primary use of antiplatelet drugs?

- a) To lower blood pressure
- b) To prevent blood clots
- c) To treat infections
- d) To manage cholesterol levels

Answer: b) To prevent blood clots

Explanation: Antiplatelet drugs prevent the formation of blood clots by inhibiting platelet aggregation.

12. What is the mechanism of action of corticosteroids?

- a) Blockage of histamine receptors
- b) Inhibition of phospholipase A2
- c) Activation of beta-adrenergic receptors
- d) Inhibition of angiotensin II

Answer: b) Inhibition of phospholipase A2

Explanation: Corticosteroids inhibit phospholipase A2, reducing inflammation and immune responses.

13. Which of the following is a common side effect of antihistamines?

- a) Constipation
- b) Drowsiness
- c) Weight loss
- d) Insomnia

Answer: b) Drowsiness

Explanation: Antihistamines often cause drowsiness as a side effect due to their sedative properties.

14. What type of drug is used to treat anxiety disorders?

- a) Antidepressants
- b) Antihistamines
- c) Benzodiazepines
- d) Anticoagulants

Answer: c) Benzodiazepines

Explanation: Benzodiazepines are commonly prescribed for their anxiolytic (anti-anxiety) effects.

15. What is the primary action of antiepileptic drugs?

- a) Lowering blood sugar levels
- b) Preventing seizures
- c) Reducing blood pressure
- d) Treating bacterial infections

Answer: b) Preventing seizures

Explanation: Antiepileptic drugs are used to control and prevent seizures in patients with epilepsy.

16. Which of the following is a side effect associated with the use of statins?

- a) Liver damage
- b) Constipation
- c) Insomnia
- d) Weight gain

Answer: a) Liver damage

Explanation: Statins can cause liver damage, so liver function should be monitored regularly during treatment.

17. What is the mechanism of action of angiotensin receptor blockers (ARBs)?

- a) Inhibiting the angiotensin-converting enzyme
- b) Blocking angiotensin II receptors
- c) Increasing blood volume
- d) Reducing blood glucose levels

Answer: b) Blocking angiotensin II receptors

Explanation: ARBs work by blocking the receptors for angiotensin II, a hormone that increases blood pressure.

18. What is the use of bronchodilators?

- a) To reduce inflammation in the body
- b) To widen airways and ease breathing
- c) To lower cholesterol levels
- d) To prevent blood clots

Answer: b) To widen airways and ease breathing

Explanation: Bronchodilators relax and widen the airways, making it easier for patients with asthma or COPD to breathe.

19. Which of the following drugs is used to treat hypertension?

- a) Metformin
- b) Losartan
- c) Loratadine
- d) Diphenhydramine

Answer: b) Losartan

Explanation: Losartan is an angiotensin II receptor blocker used to treat high blood pressure.

20. What is the mechanism of action of diuretics?

- a) Increasing blood volume
- b) Reducing sodium and fluid retention
- c) Enhancing glucose metabolism
- d) Increasing platelet aggregation

Answer: b) Reducing sodium and fluid retention

Explanation: Diuretics help to reduce blood pressure and fluid retention by promoting the excretion of sodium and water.



21. Which of the following medications is a common anticoagulant?

- a) Warfarin
- b) Metformin
- c) Ibuprofen
- d) Omeprazole

Answer: a) Warfarin

Explanation: Warfarin is a commonly used anticoagulant that helps prevent blood clots.

22. What is the main action of antihypertensive drugs?

- a) Increase heart rate
- b) Reduce blood pressure
- c) Enhance blood clotting
- d) Increase blood glucose

Answer: b) Reduce blood pressure

Explanation: Antihypertensive drugs are used to lower high blood pressure and reduce the risk of cardiovascular events.

23. What is the primary use of laxatives?

- a) To manage diabetes
- b) To alleviate constipation
- c) To treat bacterial infections
- d) To reduce fever

Answer: b) To alleviate constipation

Explanation: Laxatives are used to relieve constipation by promoting bowel movements.

24. Which class of drugs is used to treat heart failure?

- a) Diuretics
- b) Antihistamines
- c) Antivirals
- d) Antifungals

Answer: a) Diuretics

Explanation: Diuretics are commonly used to manage heart failure by reducing fluid buildup and easing symptoms.

25. What is the mechanism of action of selective serotonin reuptake inhibitors (SSRIs)?

- a) Blocking dopamine receptors
- b) Inhibiting serotonin reuptake in the brain

- c) Enhancing norepinephrine release
- d) Inhibiting acetylcholine breakdown

Answer: b) Inhibiting serotonin reuptake in the brain

Explanation: SSRIs work by increasing serotonin levels in the brain by preventing its reuptake.

26. Which of the following is a commonly used medication for the treatment of Type 1 diabetes?

- a) Insulin
- b) Metformin
- c) Glipizide
- d) Acarbose

Answer: a) Insulin

Explanation: Insulin is the primary medication used to manage Type 1 diabetes, as these patients do not produce insulin naturally.

27. What is the primary action of antipsychotic medications?

- a) To enhance cognitive function
- b) To alleviate symptoms of psychosis and schizophrenia
- c) To reduce blood pressure
- d) To manage pain

Answer: b) To alleviate symptoms of psychosis and schizophrenia

Explanation: Antipsychotic medications are used to treat symptoms of psychosis and schizophrenia by altering neurotransmitter activity.

28. What is the mechanism of action of antihistamines?

- a) Blocking histamine receptors
- b) Increasing histamine release
- c) Enhancing serotonin levels
- d) Inhibiting acetylcholine

Answer: a) Blocking histamine receptors

Explanation: Antihistamines work by blocking histamine receptors, reducing allergy symptoms like itching and sneezing.

29. Which of the following is a common side effect of corticosteroids?

- a) Hyperglycemia
- b) Hypotension
- c) Constipation
- d) Insomnia

Answer: a) Hyperglycemia

Explanation: Corticosteroids can increase blood sugar levels, leading to hyperglycemia as a side effect.

30. What type of drug is used to manage chronic obstructive pulmonary disease (COPD)?

- a) Diuretics
- b) Anticoagulants
- c) Bronchodilators
- d) Antifungals

Answer: c) Bronchodilators

Ex<mark>planation:</mark> Bronchodilators are used to relax and open the airways, which is beneficial in managing COPD.



31. Which class of drugs is commonly used to treat anxiety disorders?

- a) Antidepressants
- b) Benzodiazepines
- c) Antihistamines
- d) Antidiarrheals

Answer: b) Benzodiazepines

Explanation: Benzodiazepines are commonly used for their anxiolytic properties to manage anxiety disorders.

32. What is the primary use of antihypertensive medications?

- a) To reduce cholesterol levels
- b) To lower blood pressure
- c) To treat infections
- d) To manage blood sugar levels

Answer: b) To lower blood pressure

Explanation: Antihypertensive medications are used to lower blood pressure in patients with hypertension.

33. Which of the following is a common side effect of beta-blockers?

- a) Bradycardia
- b) Hyperglycemia
- c) Insomnia
- d) Constipation

Answer: a) Bradycardia

Explanation: Beta-blockers can cause bradycardia (slow heart rate) as a side effect.

34. What is the mechanism of action of proton pump inhibitors (PPIs)?

- a) Blocking histamine receptors
- b) Inhibiting proton pumps in the stomach
- c) Enhancing mucosal protection
- d) Reducing gastric acid secretion by blocking H2 receptors

Answer: b) Inhibiting proton pumps in the stomach

Explanation: PPIs work by inhibiting proton pumps in the stomach, reducing gastric acid secretion.

35. Which drug class is used to treat fungal infections?

- a) Antivirals
- b) Antibiotics
- c) Antifungals
- d) Analgesics

Answer: c) Antifungals

Explanation: Antifungal medications are specifically used to treat infections caused by fungi.

36. What is the primary action of anticoagulants?

- a) Preventing blood clots
- b) Treating bacterial infections
- c) Managing high cholesterol
- d) Reducing pain

Answer: a) Preventing blood clots

Explanation: Anticoagulants help prevent the formation of blood clots and are used in various thromboembolic disorders.

37. Which medication is commonly used to treat hyperthyroidism?

- a) Levothyroxine
- b) Methimazole
- c) Prednisone
- d) Metformin

Answer: b) Methimazole

Explanation: Methimazole is used to manage hyperthyroidism by inhibiting thyroid hormone production.

38. What is the mechanism of action of NSAIDs?

- a) Blocking histamine receptors
- b) Inhibiting prostaglandin synthesis
- c) Enhancing blood clotting
- d) Reducing blood pressure

Answer: b) Inhibiting prostaglandin synthesis

Explanation: NSAIDs work by inhibiting the synthesis of prostaglandins, which reduces inflammation and pain.

39. Which of the following is a common side effect of antibiotics?

- a) Nausea
- b) Hypertension
- c) Weight gain
- d) Insomnia

Answer: a) Nausea

Explanation: Nausea is a common side effect of antibiotics due to their effect on the gastrointestinal tract.

40. What is the primary action of muscle relaxants?

- a) Enhancing cognitive function
- b) Reducing muscle spasticity
- c) Lowering blood sugar levels
- d) Treating infections

Answer: b) Reducing muscle spasticity

Explanation: Muscle relaxants are used to reduce muscle spasticity and relieve muscle tension.



41. Which of the following drugs is commonly used for pain management?

- a) Prednisone
- b) Acetaminophen
- c) Metformin
- d) Losartan

Answer: b) Acetaminophen

Explanation: Acetaminophen is widely used for its analgesic (pain-relieving) and antipyretic (fever-reducing) effects.

42. What is the mechanism of action of insulin?

- a) Increasing glucose production in the liver
- b) Enhancing glucose uptake by cells
- c) Reducing glycogen synthesis
- d) Inhibiting insulin receptors

Answer: b) Enhancing glucose uptake by cells

Explanation: Insulin facilitates the uptake of glucose into cells, lowering blood sugar levels.

43. Which medication class is used to treat high cholesterol levels?

- a) Statins
- b) Antihistamines
- c) Antivirals
- d) Diuretics

Answer: a) Statins

Explanation: Statins are used to lower high cholesterol levels by inhibiting cholesterol synthesis in the liver.

44. What is the mechanism of action of calcium channel blockers?

- a) Blocking calcium entry into cells
- b) Enhancing calcium absorption
- c) Increasing calcium release from bones
- d) Decreasing calcium levels in the blood

Answer: a) Blocking calcium entry into cells

Explanation: Calcium channel blockers work by inhibiting calcium entry into cells, leading to vasodilation and reduced blood pressure.

45. Which medication is used to manage acute asthma attacks?

- a) Long-acting beta agonists
- b) Inhaled corticosteroids
- c) Short-acting beta agonists
- d) Anticholinergics

Answer: c) Short-acting beta agonists

Explanation: Short-acting beta agonists provide quick relief by relaxing airway muscles during acute asthma attacks.

46. What is the primary use of antidiabetic drugs?

- a) To treat infections
- b) To manage blood sugar levels
- c) To reduce blood pressure
- d) To alleviate pain

Answer: b) To manage blood sugar levels

Explanation: Antidiabetic drugs are used to control blood sugar levels in individuals with diabetes.

47. Which of the following medications is used to treat hypertension?

- a) Prednisone
- b) Amoxicillin
- c) Hydrochlorothiazide
- d) Ciprofloxacin

Answer: c) Hydrochlorothiazide

Explanation: Hydrochlorothiazide is a diuretic used to treat high blood pressure by reducing fluid retention.

48. What is the mechanism of action of antiarrhythmic drugs?

- a) Blocking potassium channels
- b) Enhancing calcium entry into cells
- c) Reducing heart rate
- d) Inhibiting norepinephrine reuptake

Answer: a) Blocking potassium channels

Explanation: Antiarrhythmic drugs often work by blocking potassium channels, which helps to stabilize abnormal heart rhythms.

49. Which class of drugs is used to treat erectile dysfunction?

- a) Antihypertensives
- b) Phosphodiesterase-5 inhibitors
- c) Anticoagulants
- d) Antifungals

Answer: b) Phosphodiesterase-5 inhibitors

Explanation: Phosphodiesterase-5 inhibitors, such as sildenafil, are used to treat erectile dysfunction by increasing blood flow to the penis.

50. What is the primary action of anticoagulants?

- a) To prevent blood clot formation
- b) To enhance platelet aggregation
- c) To treat bacterial infections
- d) To increase blood glucose levels

Answer: a) To prevent blood clot formation

Explanation: Anticoagulants prevent the formation of blood clots, reducing the risk of thromboembolic events.



Section C: Pharmacotherapeutics (50 Questions, 50 Marks)

1. What is the primary goal of pharmacotherapy?

- a) To eliminate all side effects
- b) To achieve therapeutic outcomes while minimizing adverse effects
- c) To provide medication at the lowest cost
- d) To increase the number of medications prescribed

Answer: b) To achieve the rapeutic outcomes while minimizing adverse effects

Explanation: The goal of pharmacotherapy is to effectively treat conditions while minimizing side effects and optimizing therapeutic outcomes.

2. Which class of drugs is commonly used to manage hypertension?

- a) Antihistamines
- b) Beta-blockers
- c) Antacids
- d) Antifungals

Answer: b) Beta-blockers

Explanation: Beta-blockers are often prescribed to manage hypertension by reducing heart rate and blood pressure.

3. The term 'bioavailability' refers to:

- a) The extent and rate at which the active ingredient or active moiety is absorbed and becomes available at the site of action
- b) The total amount of drug in the body
- c) The speed at which a drug is metabolized
- d) The ability of a drug to cross the blood-brain barrier

Answer: a) The extent and rate at which the active ingredient or active moiety is absorbed and becomes available at the site of action

Explanation: Bioavailability measures how effectively a drug reaches its target site of action after administration.

4. What is the purpose of using a loading dose of a medication?

- a) To achieve steady-state drug levels quickly
- b) To prevent drug interactions
- c) To reduce the duration of treatment
- d) To minimize side effects

Answer: a) To achieve steady-state drug levels quickly

Explanation: A loading dose is used to rapidly reach therapeutic drug levels and achieve the desired effect more quickly.

5. Which of the following is an example of a drug with a narrow therapeutic index?

- a) Aspirin
- b) Acetaminophen
- c) Warfarin
- d) Diphenhydramine

Answer: c) Warfarin

Explanation: Warfarin has a narrow therapeutic index, meaning the difference between its effective dose and toxic dose is small.

6. The term 'pharmacodynamics' refers to:

- a) The study of drug absorption, distribution, metabolism, and excretion
- b) The study of the biochemical and physiological effects of drugs and their mechanisms of action
- c) The process of drug formulation and development
- d) The study of drug interactions with food

Answer: b) The study of the biochemical and physiological effects of drugs and their mechanisms of action

Explanation: Pharmacodynamics focuses on how drugs affect the body and their mechanisms of action.

7. Which of the following is a common side effect of opioid analgesics?

- a) Drowsiness
- b) Constipation
- c) Insomnia
- d) Tachycardia

Answer: b) Constipation

Explanation: Opioids often cause constipation due to their effect on gastrointestinal motility.

8. Which medication class is primarily used to manage Type 2 Diabetes Mellitus?

- a) Antihypertensives
- b) Antacids
- c) Biguanides
- d) Antivirals

Answer: c) Biguanides

Explanation: Biguanides, such as metformin, are commonly used to manage Type 2 Diabetes Mellitus by improving insulin sensitivity.

9. What is the primary use of angiotensin-converting enzyme (ACE) inhibitors?

- a) To treat infections
- b) To reduce blood pressure
- c) To relieve pain
- d) To manage asthma

Answer: b) To reduce blood pressure

Explanation: ACE inhibitors are used to treat hypertension by preventing the conversion of angiotensin I to angiotensin II, leading to vasodilation.

10. Which of the following medications is used to treat hyperlipidemia?

- a) Statins
- b) Beta-blockers
- c) Antidepressants
- d) Anticoagulants

Answer: a) Statins

Explanation: Statins are used to lower cholesterol levels and manage hyperlipidemia.



11. What is the role of diuretics in the management of heart failure?

- a) To increase blood pressure
- b) To decrease fluid overload and reduce edema
- c) To improve insulin sensitivity
- d) To enhance the absorption of other medications

Answer: b) To decrease fluid overload and reduce edema

Explanation: Diuretics help manage heart failure by reducing excess fluid and alleviating edema.

12. The term 'pharmacokinetics' involves which of the following processes?

- a) Drug interactions with other drugs
- b) Drug absorption, distribution, metabolism, and excretion
- c) The study of drug efficacy
- d) The side effects of drugs

Answer: b) Drug absorption, distribution, metabolism, and excretion

Explanation: Pharmacokinetics covers how a drug is absorbed, distributed, metabolized, and excreted by the body.

13. Which medication is commonly used for the acute management of asthma attacks?

- a) Proton pump inhibitors
- b) Inhaled corticosteroids
- c) Short-acting beta-agonists
- d) Calcium channel blockers

Answer: c) Short-acting beta-agonists

Explanation: Short-acting beta-agonists provide quick relief from asthma symptoms by relaxing airway muscles.

14. The use of corticosteroids is primarily associated with which type of therapeutic effect?

- a) Pain relief
- b) Anti-inflammatory
- c) Antimicrobial
- d) Antihypertensive

Answer: b) Anti-inflammatory

Explanation: Corticosteroids are mainly used for their anti-inflammatory effects in various conditions.

15. What is the mechanism of action of proton pump inhibitors (PPIs)?

- a) Inhibition of histamine receptors
- b) Neutralization of stomach acid
- c) Inhibition of gastric acid secretion by blocking the proton pump
- d) Enhancement of gastric motility

Answer: c) Inhibition of gastric acid secretion by blocking the proton pump

Explanation: PPIs reduce stomach acid by inhibiting the proton pump in the stomach lining.

16. Which of the following medications is a common treatment for bacterial infections?

- a) Antihistamines
- b) Antifungals
- c) Antibiotics
- d) Antivirals

Answer: c) Antibiotics

Explanation: Antibiotics are used to treat bacterial infections by killing or inhibiting bacterial growth.

17. The term 'therapeutic index' describes:

- a) The cost-effectiveness of a drug
- b) The range between the minimum effective dose and the minimum toxic dose
- c) The time it takes for a drug to reach peak concentration
- d) The extent of drug metabolism

Answer: b) The range between the minimum effective dose and the minimum toxic dose Explanation: The therapeutic index indicates the safety margin of a drug by comparing effective and toxic doses.

18. What type of medication is commonly used to manage chronic pain?

- a) Antihistamines
- b) Opioids
- c) Anticoagulants
- d) Antidepressants

Answer: b) Opioids

Explanation: Opioids are frequently used for managing chronic pain due to their strong analgesic properties.

19. Which of the following drugs is used to manage symptoms of depression?

- a) Antihistamines
- b) Antidepressants
- c) Antidiabetics
- d) Antihypertensives

Answer: b) Antidepressants

Explanation: Antidepressants are used to treat depressive disorders by modifying neurotransmitter levels in the brain.

20. The term 'pharmacovigilance' refers to:

- a) The study of drug formulations
- b) The detection, assessment, understanding, and prevention of adverse effects or any other drug-related problems
- c) The measurement of drug efficacy
- d) The management of drug budgets

Answer: b) The detection, assessment, understanding, and prevention of adverse effects or any other drug-related problems

Explanation: Pharmacovigilance aims to ensure drug safety by monitoring and managing adverse effects.



21. Which class of drugs is used to manage anxiety disorders?

- a) Antihypertensives
- b) Antipsychotics
- c) Anxiolytics
- d) Antidiabetics

Answer: c) Anxiolytics

Explanation: Anxiolytics are used to relieve symptoms of anxiety by affecting neurotransmitter levels in the brain.

22. What is the primary use of antihistamines?

- a) To manage hypertension
- b) To relieve allergy symptoms
- c) To treat bacterial infections
- d) To reduce pain

Answer: b) To relieve allergy symptoms

Explanation: Antihistamines are used to alleviate symptoms of allergic reactions by blocking histamine receptors.

23. Which medication class is typically used to lower blood cholesterol levels?

- a) Statins
- b) Beta-blockers
- c) Diuretics
- d) Antidiabetics

Answer: a) Statins

Explanation: Statins are used to manage high cholesterol levels and reduce the risk of cardiovascular diseases.

24. The term 'side effect' refers to:

- a) The primary intended effect of a medication
- b) Any effect of a drug that is unintended and occurs in addition to the desired therapeutic effect
- c) The cost of a medication
- d) The effectiveness of a drug

Answer: b) Any effect of a drug that is unintended and occurs in addition to the desired therapeutic effect

Explanation: Side effects are unintended consequences that occur alongside the primary therapeutic effects of a drug.

25. What type of medication is commonly prescribed for the management of chronic obstructive pulmonary disease (COPD)?

- a) Inhaled corticosteroids
- b) Anticoagulants
- c) Proton pump inhibitors
- d) Antifungals

Answer: a) Inhaled corticosteroids

Explanation: Inhaled corticosteroids help manage COPD by reducing inflammation and improving lung function.

26. What is the primary role of anticoagulants in therapy?

- a) To relieve pain
- b) To reduce blood clotting
- c) To manage blood pressure
- d) To treat infections

Answer: b) To reduce blood clotting

Explanation: Anticoagulants are used to prevent or treat blood clots by inhibiting clotting factors.

27. Which of the following is an example of a non-steroidal anti-inflammatory drug (NSAID)?

- a) Prednisone
- b) Ibuprofen
- c) Methotrexate
- d) Metformin

Answer: b) Ibuprofen

Explanation: Ibuprofen is an NSAID used to reduce inflammation, pain, and fever.

28. What is the primary use of insulin in diabetes management?

- a) To increase blood sugar levels
- b) To lower blood sugar levels
- c) To improve insulin sensitivity
- d) To treat hypertension

Answer: b) To lower blood sugar levels

Explanation: Insulin is used to lower blood sugar levels in patients with diabetes by facilitating glucose uptake into cells.

29. Which class of drugs is commonly used to treat erectile dysfunction?

- a) Antihistamines
- b) Phosphodiesterase type 5 inhibitors
- c) Antidepressants
- d) Antidiabetics

Answer: b) Phosphodiesterase type 5 inhibitors

Explanation: Phosphodiesterase type 5 inhibitors, such as sildenafil, are used to treat erectile dysfunction by increasing blood flow to the penis.

30. The term 'drug interaction' refers to:

- a) The effect of a drug on the body
- b) The effect of a drug on a disease
- c) The modification of the effect of a drug when administered with another drug or substance
- d) The absorption of a drug into the bloodstream

Answer: c) The modification of the effect of a drug when administered with another drug or substance

Explanation: Drug interactions occur when one drug affects the activity or metabolism of another drug.



31. Which medication class is used to manage asthma symptoms by reducing inflammation?

- a) Beta-agonists
- b) Corticosteroids
- c) Diuretics
- d) Antihistamines

Answer: b) Corticosteroids

Explanation: Corticosteroids reduce inflammation and help control asthma symptoms.

32. What is the mechanism of action of beta-blockers?

- a) They block beta-adrenergic receptors, reducing heart rate and blood pressure
- b) They inhibit the production of gastric acid

- c) They increase blood glucose levels
- d) They enhance renal function

Answer: a) They block beta-adrenergic receptors, reducing heart rate and blood pressure

Explanation: Beta-blockers work by blocking beta-adrenergic receptors, leading to a decrease in heart rate and blood pressure.

33. The term 'adverse drug reaction' (ADR) refers to:

- a) The primary effect of a medication
- b) A negative effect experienced by the patient due to a drug
- c) The desired therapeutic effect of a drug
- d) The interaction between two drugs

Answer: b) A negative effect experienced by the patient due to a drug

Explanation: ADRs are unintended and harmful effects that occur due to medication use.

34. Which medication is often used to manage nausea and vomiting associated with chemotherapy?

- a) Antihistamines
- b) Antacids
- c) Antiemetics
- d) Laxatives

Answer: c) Antiemetics

Explanation: Antiemetics are used to prevent and treat nausea and vomiting, particularly in patients undergoing chemotherapy.

35. What is the primary role of immunosuppressants?

- a) To enhance the immune system
- b) To suppress the immune system's response
- c) To increase white blood cell count
- d) To treat bacterial infections

Answer: b) To suppress the immune system's response

Explanation: Immunosuppressants are used to reduce immune system activity, often to prevent organ rejection or treat autoimmune diseases.

36. Which class of drugs is commonly used to manage chronic pain in osteoarthritis?

- a) Opioids
- b) Non-steroidal anti-inflammatory drugs (NSAIDs)
- c) Antihistamines
- d) Anticoagulants

Answer: b) Non-steroidal anti-inflammatory drugs (NSAIDs)

Explanation: NSAIDs are commonly used to manage chronic pain and inflammation in osteoarthritis.

37. What is the mechanism of action of statins?

- a) They reduce cholesterol synthesis in the liver
- b) They block beta-adrenergic receptors
- c) They increase insulin secretion
- d) They inhibit gastric acid secretion

Answer: a) They reduce cholesterol synthesis in the liver

Explanation: Statins lower cholesterol levels by inhibiting the enzyme HMG-CoA reductase in the liver.

38. The term 'titration' in pharmacotherapy refers to:

- a) The adjustment of drug dosage to achieve the desired therapeutic effect
- b) The measurement of drug bioavailability
- c) The study of drug interactions
- d) The calculation of drug cost

Answer: a) The adjustment of drug dosage to achieve the desired therapeutic effect Explanation: Titration involves adjusting medication dosage to find the optimal dose for therapeutic effect and minimizing side effects.

39. Which medication class is used to treat allergic reactions and hay fever?

- a) Antihistamines
- b) Antihypertensives
- c) Antifungals
- d) Antivirals

Answer: a) Antihistamines

Explanation: Antihistamines are effective in treating allergic reactions and hay fever by blocking histamine receptors.

40. What is the primary use of angiotensin II receptor blockers (ARBs)?

- a) To reduce blood pressure
- b) To treat infections
- c) To manage pain
- d) To control blood glucose levels

Answer: a) To reduce blood pressure

Explanation: ARBs help lower blood pressure by blocking the effects of angiotensin II, which causes vasoconstriction.



41. Which of the following is a commonly used anticoagulant medication?

- a) Metformin
- b) Warfarin
- c) Ibuprofen
- d) Diphenhydramine

Answer: b) Warfarin

Explanation: Warfarin is used to prevent and treat blood clots by inhibiting vitamin K-dependent clotting factors.

42. The term 'pharmacogenomics' involves:

- a) The study of how genetic differences influence drug response
- b) The interaction between drugs and foods
- c) The development of new drug formulations
- d) The cost-effectiveness of medications

Answer: a) The study of how genetic differences influence drug response

Explanation: Pharmacogenomics focuses on how genetic variations affect individual responses to medications.

43. Which medication is commonly used to manage acute myocardial infarction (heart attack)?

- a) Antacids
- b) Thrombolytics
- c) Antihistamines
- d) Corticosteroids

Answer: b) Thrombolytics

Explanation: Thrombolytics are used to dissolve blood clots and restore blood flow during an acute myocardial infarction.

44. The term 'pharmacoeconomics' refers to:

- a) The study of drug costs and economic impact of drug therapy
- b) The process of drug metabolism
- c) The assessment of drug interactions
- d) The formulation of new drugs

Answer: a) The study of drug costs and economic impact of drug therapy

Explanation: Pharmacoeconomics evaluates the cost-effectiveness and economic impact of drug therapies.

45. Which of the following medications is used to manage hyperthyroidism?

- a) Levothyroxine
- b) Methimazole
- c) Metformin
- d) Amoxicillin

Answer: b) Methimazole

Explanation: Methimazole is used to manage hyperthyroidism by inhibiting thyroid hormone production.

46. What is the primary mechanism of action of diuretics?

- a) To reduce blood clotting
- b) To increase urine production and reduce fluid overload
- c) To decrease blood glucose levels
- d) To relieve pain

Answer: b) To increase urine production and reduce fluid overload

Explanation: Diuretics help manage fluid overload by increasing urine output.

47. The term 'pharmacokinetics' includes the study of:

- a) Drug interactions
- b) Drug absorption, distribution, metabolism, and excretion
- c) Drug efficacy
- d) Patient adherence

Answer: b) Drug absorption, distribution, metabolism, and excretion

Explanation: Pharmacokinetics examines how the body processes a drug through absorption, distribution, metabolism, and excretion.

48. Which class of drugs is used to manage chronic pain in neuropathic conditions?

- a) Antidepressants
- b) Opioids
- c) Antihypertensives
- d) Anticoagulants

Answer: a) Antidepressants

Explanation: Certain antidepressants are effective in managing neuropathic pain by modulating neurotransmitter levels.

49. What is the primary use of antidiabetic medications?

- a) To treat high blood pressure
- b) To manage and control blood glucose levels
- c) To alleviate allergy symptoms
- d) To reduce cholesterol levels

Answer: b) To manage and control blood glucose levels

Explanation: Antidiabetic medications are used to regulate blood glucose levels in patients with diabetes.

D.Pharma Exit Exam 2024

50. Which of the following medications is commonly used to treat peptic ulcer disease?

- a) Antihistamines
- b) Proton pump inhibitors
- c) Antihypertensives
- d) Anticoagulants

Answer: b) Proton pump inhibitors

Explanation: Proton pump inhibitors reduce stomach acid production and help treat peptic ulcer disease.

Visit: dpee.org to Download Solved Sample Paper-2 & Paper-3 for D Pharma Exit Exam

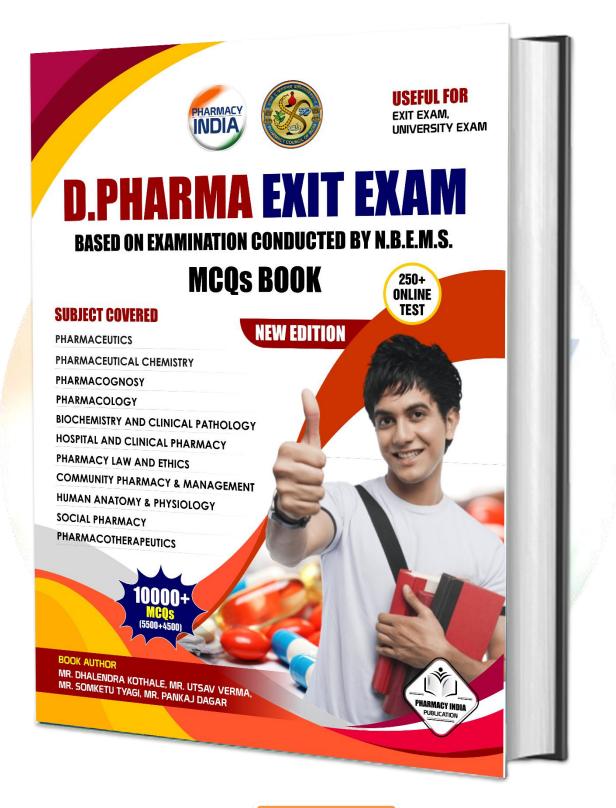


D.Pharma Exit Exam 2024





D.Pharma Exit Exam 2024













D.Pharma Exit Exam 2024

