

Community Health Level 5

Apply Human Anatomy and Physiology

July/August 2023

SECTION A: (20 MARKS)

1. **B. Epiglottis**
 2. **C. Vitamin K**
 3. **C. Infectious diseases**
 4. **A. Uncontrolled mitosis**
 5. **C. Communicable diseases**
 6. **D. Large intestine**
 7. **B. 206**
 8. **B. Liver**
 9. **C. Small intestine**
 10. **B. Homeostasis**
 11. **B. Pharyngotympanic tube**
 12. **A. Coronal plane**
 13. **B. Gallbladder**
 14. **D. Spleen**
 15. **A. Packaging of secretory cell products**
 16. **B. Liver**
 17. **C. DNA RNA Protein**
 18. **C. 60%**
 19. **D. Hypothalamus**
 20. **C. 7.35 – 7.45**
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SECTION B: (40 MARKS)

21. **Four characteristics of living organisms:**

- Growth
- Reproduction
- Metabolism
- Response to stimuli (4 Marks)

22. Three functions of hormone glucagon:

- Raises blood glucose levels by promoting glycogenolysis.
- Stimulates gluconeogenesis in the liver.
- Facilitates the conversion of fats into fatty acids for energy. (3 Marks)

23. Three functions of blood vessels:

- Transport blood throughout the body.
- Regulate blood pressure and flow.
- Exchange nutrients and waste products with tissues. (3 Marks)

24. Four categories of tissues:

- Epithelial tissue
- Connective tissue
- Muscle tissue
- Nervous tissue (4 Marks)

25. Four approaches to cancer treatment:

- Surgery
- Radiation therapy
- Chemotherapy
- Immunotherapy (4 Marks)

26. Difference between growth and development:

- **Growth:** Refers to an increase in size or mass of an organism.
- **Development:** Involves changes and maturation in the organism's structure and function over time. (2 Marks)

27. Four parts of the axial skeleton:

- Skull
- Vertebral column
- Rib cage
- Sternum (4 Marks)

28. Three stages involved in the blood clotting process:

- **Vascular spasm:** Constriction of blood vessels to reduce blood flow.
- **Platelet plug formation:** Platelets adhere to the site of injury and aggregate to form a plug.
- **Coagulation:** Formation of a fibrin mesh that stabilizes the platelet plug. (3 Marks)

29. Three functions of blood in the human body:

- Transports oxygen and nutrients to cells.
- Removes waste products from metabolism.
- Helps regulate body temperature and pH balance. (3 Marks)

30. Three bones of the appendicular skeleton:

- Humerus
- Femur
- Tibia (3 Marks)

31. Four functions of the nervous system:

- Controls and coordinates body activities.
- Processes sensory information.
- Facilitates communication between different body parts.
- Regulates reflex actions. (4 Marks)

32. Three accessory organs of the digestive system:

- Liver
- Pancreas
- Gallbladder (3 Marks)

SECTION C: (40 MARKS)

33. The digestive system plays a vital role in human beings:

a) Five functions of the digestive system:

- Breaks down food into nutrients.
- Absorbs nutrients into the bloodstream.
- Eliminates waste products from the body.
- Produces digestive enzymes and acids.
- Maintains fluid and electrolyte balance. (10 Marks)

b) Five diseases of the digestive system:

- Gastroesophageal reflux disease (GERD)
- Inflammatory bowel disease (IBD)
- Peptic ulcers
- Celiac disease
- Hepatitis (10 Marks)

34. Patients frequently visit the hospital to see a dermatologist:

a) Five functions of the integumentary system:

- Protects against environmental hazards.
- Regulates body temperature.
- Provides sensory information.
- Synthesizes vitamin D.
- Prevents water loss. (10 Marks)

b) Five structures of nails:

- Nail plate
- Nail bed
- Cuticle (eponychium)
- Lunula
- Nail matrix (5 Marks)

c) Five functions of the nail:

- Protects the distal phalanx.
- Enhances sensitivity of the fingertip.
- Aids in grasping and manipulating objects.
- Provides support to the surrounding skin.
- Serves as a tool for scratching. (5 Marks)

35. As a community health assistant, you have been tasked to educate your community unit about respiratory diseases:

a) Five functions of the respiratory system:

- Facilitates gas exchange (oxygen and carbon dioxide).
- Regulates blood pH through carbon dioxide levels.
- Protects against pathogens and particles through mucous and cilia.
- Produces sound for communication (phonation).
- Helps in olfaction (sense of smell). (10 Marks)

b) Five methods of controlling communicable diseases:

- Promoting vaccination and immunization.
- Improving sanitation and hygiene practices.
- Educating the community about disease transmission.
- Implementing quarantine measures for infected individuals.
- Ensuring access to clean water and nutritious food. (10 Marks)