

Course: B. Pharmacy

Sem: I

Subject Name: Human anatomy and physiology - I

Subject Code: BP101T

Max Marks: 75

Date:25/08/2022

Duration: 3.45 Hrs.

Instructions –

1. All questions are compulsory
2. Answers to MCQs should be written in full sentences
3. Draw diagrams / figures wherever necessary
4. Figures to right indicate full marks

Q. No. 1 Select the correct answer from multiple choice questions. (20 x 1) 20 M

1. The type of organelle is primarily involved in the synthesis of oils, phospholipids, and Steroidal hormone?

- | | |
|---------------------------------|------------------|
| A. Ribosome | B. Lysosome |
| C. Smooth endoplasmic reticulum | D. Mitochondrion |

2. The muscle tissue is multinucleate, voluntary, and bears striations.

- | | |
|----------------------------|-------------------|
| A. Skeletal muscle | B. Smooth muscle |
| C. Multiunit smooth muscle | D. Cardiac muscle |

3. The layer is only found in the epidermis of the lips, palms, and soles.

- | | |
|---------------------|-----------------------|
| A. Stratum lucidum | B. Stratum corneum |
| C. Stratum spinosum | D. Stratum granulosum |

4. Detoxification is a characteristic function of type of organelle in cell.

- | | |
|-----------------|--------------------|
| A. Mitochondria | B. Golgi apparatus |
| C. Nucleus | D. Peroxisome |

5. _____ detects touch stimuli and transmits these signals to sensory nerves.

- | | |
|------------------|---------------------|
| A. Melanocytes | B. Merkel cells |
| C. Keratinocytes | D. Langerhans cells |

6. The following substance is not responsible for skin color

- | | |
|-------------|---------------|
| A. Carotene | B. Melanin |
| C. Keratin | D. Hemoglobin |

7. Platelets are created from type of cell.

- | | |
|----------------|-------------------|
| A. Melanocytes | B. Astrocytes |
| C. Macrophages | D. Megakaryocytes |

8. Albumin, globulins, and fibrinogen are examples of

- | | |
|---------------------|-----------------|
| A. Formed elements. | B. Platelets |
| C. Plasma proteins | D. Granulocytes |

9. The chemical is involved in the breakdown of a clot (fibrinolysis).

- A. Fibrinogen.
C. Heparin
10. Branches of lymph capillaries inside villi of intestine are termed as
A. Lymph nodes
C. Thoracic lymph duct
11. The function of lymphatic system
A. Immunity
C. Drains excess interstitial fluid
12. The functional unit of contraction in a skeletal muscle fiber is the _____
A. Myofibril
C. Sarcomere
13. The ribs, sternum and scapulae are all what type of bone?
A. Long
C. Short
14. The fibrous bands that connects two bones in a joint are
A. Cartilage
C. Ligaments
15. In the human eye, the photosensitive compound is composed of
A. Guanosine and retinol
C. Opsin and retinol
16. The term "gustation" explicitly refers to which sense?
A. Taste
C. Hearing
17. The following nerves cause the adrenal medulla to release epinephrine and norepinephrine.
A. Somatic
C. Parasympathetic
18. If individual has Heart rate of 60, Stroke rate of 150 ml Cardiac output is
A. 900 ml
C. 2.5 ml
19. The layer of the heart responsible for contraction is the
A. Myocardium.
C. Endocardium.
20. The second heart sound (dubb) is associated with the closure of
A. Tricuspid valve
C. Bicuspid valve
- B. Lymphocyte
D. Plasmin
- B. Lacteals
D. Lymph capillary
- B. Transports lipids from GIT to the blood
D. All of the above
- B. Myofilament
D. Sarcoplasmic reticulum
- B. Flat
D. Irregular
- B. Tendons
D. Strings
- B. Transducin and retinene
D. Opsin and retinal
- B. Smell
D. Touch
- B. Sympathetic
D. all of the above
- B. 9000 ml
D. 25 ml
- B. Pericardium
D. Epicardium.
- B. Semilunar valves
D. Tricuspid & bicuspid valves.

Q. No. 2 Long Answer questions (Any Two)

(10X2=20)

(20 M)

- A. Draw a neat and well labeled diagram of Cell and Discuss in detail Protein synthesis in cell.

- B. Discuss in feature structure and function of Skin.
- C. Draw a neat and labeled diagram of showing conducting element of heart, give details conducting system of heart and cardiac cycle.

Q. No. 3 Short Answer Question (any seven) (7X5=35) (35)

- a) Write a note on epithelial tissue.
- b) Explain physiology of skeletal muscle contraction.
- c) Write a note on Cell Signaling.
- d) Summarize in short Renin angiotensin aldosterone system
- e) Describe ABO and Rh system of Blood Group
- f) Explain in detail mechanism of blood coagulation.
- g) Draw neat labeled diagram of lymph node and discuss its structure and function
- h) Discuss Interior of eye ball
- i) Explain the physiology of smell.

The End