

SECTION A: MULTIPLE CHOICE QUESTION

1. The cytoplasm of erythrocytes that contains an oxygen binding protein is: -
 - A. Haemoglobin
 - B. Bilirubin
 - C. Haptoglobin
 - D. Albumin
2. Baroreceptors are present in: -
 - A. Aortic arch
 - B. Carotid sinus
 - C. Root of the right subclavian artery
 - D. All of the above
3. The swelling or dilation of blood vessels where part of the wall of artery inflated like balloon is: -
 - A. Aneurysm
 - B. Atheroma
 - C. Buerger's disease
 - D. Intussusception
4. The following processes is NOT part of mechanical digestion: -
 - A. Hydrolysis
 - B. Peristalsis
 - C. Segmentation
 - D. Mastication
5. _____ cell produces hydrochloric acid: -
 - A. Zymogenic cells
 - B. Parietal cells
 - C. Chief cells
 - D. Enteroendocrine cells
6. The following is an accessory organ in the gastrointestinal system: -
 - A. adrenal glands
 - B. pancreatic islets
 - C. gastric glands
 - D. salivary glands
7. The role of gastrin in the gastrointestinal system is to: -
 - A. stimulate release of bile and pancreatic juice
 - B. stimulate gastric secretion of hydrochloric acid
 - C. activate pepsinogen
 - D. Hydrolyse proteins to polypeptides

8. Erythropoietin is synthesized in the: -
- A. kidneys
 - B. adrenal glands
 - C. anterior pituitary
 - D. pancreas
9. Parathyroid hormone: -
- A. Increases plasma Ca^{2+} concentration
 - B. Decreases plasma Ca^{2+} concentration
 - C. Increases the rate of ATP formation
 - D. Stimulates the thyroid gland to produce thyroxine
10. The following is not part of the endocrine system: -
- A. Islets of Langerhans (pancreatic islets)
 - B. Thyroid gland
 - C. Acini cells of the pancreas
 - D. Parathyroid glands
11. In facilitated diffusion: -
- A. Carrier proteins are used to transport essential nutrients
 - B. Solutes move spontaneously from a region of high concentration to that of low concentration
 - C. Water molecules move from a region of high to that of low concentration
 - D. Molecules move from region of high osmolality to that of low osmolality
12. The following is a fibrous joint: -
- A. Sutures joint
 - B. Acromioclavicular joint
 - C. Intercarpal joint
 - D. Symphysis Pubis joint

13. Circumduction movement involves: -
- A. A body structure moving towards the axis
 - B. The sagittal plane moving towards the coronal plane
 - C. A structure twisting about an axis
 - D. A combination of flexion, extension, adduction & abduction
14. Synovial Joints includes: -
- A. Sutures, Symphysis pubis and hip joints
 - B. Hip joint, Wrist and acromio-clavicular joints
 - C. Humeral-ulnar, intercarpal and suture joints
 - D. Gomphosis, Hip and metacarpal joints
15. Actual body cavities includes: -
- A. Cranial and pelvic cavities
 - B. Peritoneal and pleural cavities
 - C. Pericardial and thoracic cavities
 - D. Pelvic and pleural cavities
16. The cutaneous membrane of the skin has: -
- A. Simple squamous epithelium
 - B. Transitional epithelium
 - C. Pseudo-stratified columnar epithelium
 - D. Stratified squamous epithelium
17. Sympathetic branch of the autonomic nervous system: -
- A. Mostly depends on acetylcholine
 - B. It is thoracolumbar
 - C. Is craniosacral
 - D. Mostly depends on dopamine
18. The first step in the series of respiration activities entails: -
- A. Transport of gases in blood
 - B. Gaseous exchange between blood and cells
 - C. Transport of gases in blood
 - D. Ventilation

19. Anterior chamber of the eyeball has: -

- A. Aqueous humor
- B. Vitreous humor
- C. Uveal tract
- D. Rhodopsin

20. Muscle contraction involves: -

- A. Interlocking of myosin and actin
- B. Sliding movement between myosin and actin fibers
- C. Release of myoglobin into myofibrils
- D. Breakdown of hemoglobin and ATP

SECTION B: Short Answer Questions (30 marks)

1. Explain the physiological mechanism of breathing (5 marks)
2. Outline two (2) major differences between internal respiration and external respiration (2 marks)
3. State four (4) cells located in the gastric mucosa (4 marks)
4. Highlight the three (3) layers of the stomach muscles (3 marks)
5. State three (3) function of Saliva (3 marks)
6. Identify six (6) hormones produced in anterior pituitary gland (6 marks)
7. Explain two (2) functions of the adrenal glands. (4 marks)
8. State three (3) phases of gastric secretion (3 marks)

SECTION C: LONG ANSWER QUESTION- 20 marks

1. Mr. X is brought in to the accident and emergency area with a penetrating chest injury.
 - a) Explain the four (4) phases of hemostasis (8 marks)
 - b) Explain six (6) factors that delay wound healing (12 marks)