Reg. No:
Date:

ST. JOSEPH'S COLLEGE (AUTONOMOUS), BANGALORE-27
B.Sc. ZOOLOGY - III SEMESTER
SEMESTER EXAMINATION: OCTOBER 2019
ZO 318 - HUMAN ANATOMY AND PHYSIOLOGY – PART I

Time: $2^{1/2}$ Hours **Max. Marks: 70**

This paper contains two printed pages and four parts
Note: Draw neat labelled diagrams wherever necessary
Indicate the question numbers clearly.

PART A

I. Answer the following **7 X 1 = 7**

1. The anatomical snuff box is a small triangular depression seen at the base of the thumb formed from _____.
2. The sweat glands are derived from _____ layer of dermis of human skin.
3. During periods of inactivity in muscle contraction, phosphocreatine reacts with ADP to form ATP. **TRUE / FALSE**
4. The most common bacteria that has been found associated with ulcers is _____.
5. Ammonia is converted into Urea in _____of man.
6. The pulmonary artery arising from the right ventricle of the human heart carries _____blood to the lungs.
7. Bohr's effect is when the partial pressure of CO_2 is high, oxyhaemoglobin releases O_2. **TRUE / FALSE**

PART B

II. Answer any the following **4 X 2 = 8**

8. What is cauda equina and where is it found ?
9. With a neat labelled diagram, depict the structure of the skeletal muscle fibre.

10. Match the following:

A. Gastrin	1. Stimulates release of intestinal juice
B. Secretin	2. Contraction of gall bladder resulting in release of bile
C. Cholecystokinin	3. Stimulates secretion of pancreatic fluid and production of bile by liver
D. Enterokinase	4. Stimulates secretion of gastric juice

11. What are the main types of dialysis? Differentiate the basic principle involved.

PART C

III. Answer any FIVE of the following **5 X 5 = 25**

12. List out the differences between the 1st and 2nd Atypical cervical vertebrae.
13. With a neat labelled diagram, explain the patella.
14. Describe the structure and function of an alveolus.
15. With reference to a nephron, explain the steps involved in urine formation in man.
16. Give an account of the accessory glands in the male reproductive system.
17. Mention the mechanisms involved in conservation of water in camels.
18. Explain the role of hypothalamus in thermoregulation.

PART D

III. Answer any THREE of the following **10 X 3 = 30**

19. With a neat labelled diagram, explain the bones of the cranium along with their sutures.
20. Describe cellulose digestion in ruminants and termites.
21. Mention the arteries in the thoracic and abdominal aorta and the regions to which they supply blood.
22. Write short notes on:
    i. Role of haemoglobin as a respiratory pigment
    ii. Bronchial disorders on the effects of smoking
