

GANPAT UNIVERSITY**B. TECH SEM- IV (Biomedical Engineering) REGULAR EXAMINATION- APRIL-JUNE 2017
2BM404: Human Anatomy & Physiology -II****TIME: 3 HRS****TOTAL MARKS: 60**

- Instructions:** (1) This Question paper has two sections. Attempt each section in separate answer book.
 (2) Figures on right indicate marks.
 (3) Be precise and to the point in answering the descriptive questions.

SECTION: I**Q.1****(10)**

- (a) Explain the process of nerve impulse conduction in neuron and discuss salutatory and complete conduction referred to neuron. **(4)**
 (b) Give the process how inhibitory synapse suppresses the action potential? **(4)**
 (c) Write brief about Parkinson disease of nervous system. **(2)**

OR**Q.1****(10)**

- (a) What is synapse? With diagram explain the synapse between pre and post synaptic neuron. **(4)**
 (b) Enlist the vital center of Medulla Oblongata and write their function. **(4)**
 (c) Write brief about Cerebral Hypoxia of nervous system. **(2)**

Q.2**(10)**

- (a) Write the different parts of structure of ear and explain the physiology of hearing. **(4)**
 (b) With diagram explain the structure, function and physiology of sense of taste. **(4)**
 (c) Write in brief the water balance by excretory (urinary) system. **(2)**

OR**Q.2****(10)**

- (a) Draw the structure of eye and explain the function of each part of eye structure. **(4)**
 (b) In detail explain structure, function and physiology of sense of smell. **(4)**
 (c) Write the function of Midbrain and Pons. **(2)**

Q.3**(10)**

- (a) Draw and explain the structure and function of urinary system. **(3)**
 (b) Write the structure and function of ureters. **(3)**
 (c) Enlist various processes involve in urine formation. Explain selective reabsorption process. **(4)**

SECTION: II

- Q.4 (10)
- (a) Explain types of bone cells. (5)
- (b) Write the difference between axial skeleton and appendicular skeleton? Enlist the functions of the bone. (5)

OR

- Q.4 (10)
- (a) Explain vertebral column with neat diagram. (5)
- (b) What is the function of the joint in skeletal system? Explain different types of joints in skeletal system. (5)

- Q.5 (10)
- (a) Explain structure of the tooth with neat diagram. (5)
- (b) Describe Anatomy and Physiology of Large intestine. (5)

OR

- Q.5 (10)
- (a) Where secretin produced and what is its function in the digestive process? (2)
- (b) What are the five human digestive secretions? Which of them is the only one that does not contain digestive enzymes? (3)
- (c) Describe Anatomy and Physiology of Liver. (5)

- Q.6 (10)
- (a) What are hormones? Which gland produces the hormone melatonin? What is the function of melatonin hormone? (3)
- (b) What are the parathyroids? Where are they located and what hormones are secreted by these glands? (3)
- (c) Explain Male reproductive system with neat diagram. (4)

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