

GANPAT UNIVERSITY
B. TECH SEM- IV (BM&I) REGULAR EXAMINATION- APRIL-JUNE 2016
2BM404 Human Anatomy and 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

- | | | |
|-----|---|------|
| (a) | Explain the sequence of Complete Digestion in detail. | (10) |
| (b) | Define following terms: | 4 |
| | 1. Peristalsis | 3 |
| | 2. Micturition | |
| | 3. Myopia | |
| (c) | Explain the Signaling of Smell Sensation. | 3 |

OR

Q. 1

- | | | |
|-----|---|------|
| (a) | Explain the complete process of formation of Urine with neat diagram. | (10) |
| (b) | Explain any 3 organs Associated with Female Reproductive system. | 5 |
| | | 5 |

Q.2

- | | | |
|-----|--|------|
| (a) | Explain the various layers of alimentary canal with neat diagram. | (10) |
| (b) | What is the composition of Bile Juice and saliva? | 3 |
| (c) | Mention the functions of organs associated with Urinary system and Draw the complete Urinary system. | 3 |
| | | 4 |

OR

Q.2

- | | | |
|-----|---|------|
| (a) | Explain the mechanism of hormone regulation. | (10) |
| (b) | Regulation of aldosterone secretion by Renin-angiotensin-Aldosterone (RAA) pathway. | 5 |
| (c) | Why kidney is known as retroperitoneal organ? | 4 |
| | | 1 |

Q.3 Write Short note on following:

- | | | |
|-----|--|------|
| (a) | Components of Olfactory Epithelium. | (10) |
| (b) | Parts of middle ear and inner ear with neat diagram. | 3 |
| (c) | Process of Photoreception. | 4 |
| | | 3 |

SECTION: II

- Q.4 (10)
(a) Explain in detail the formation of bone. 6
(b) Differentiate between 4
(i) Central nervous system v/s Peripheral nervous system.
(ii) Sympathetic nervous system v/s Parasympathetic nervous system.
- OR (10)
- Q.4 (10)
(a) Enlist the main types of joints of human body and explain various movements of the joints. 6
(b) Define Neurotransmitters. Enlist the importance of neurotransmitter in human body. Explain role of (i) Acetylcholine & (ii) Serotonin in nervous system. 4
- Q.5 (10)
(a) Explain in detail anatomical structure of neuron with neat labeled diagram. 5
(b) Compare between functions of Skeletal muscles, smooth muscles and cardiac muscles (No diagram necessary). 5
- OR (10)
- Q.5 (10)
(a) Explain the functions of following: 5
(i) Cerebrum
(ii) Cerebellum
(iii) Hypothalamus
(b) Explain physiology of Muscle contraction. 5
- Q.6 (10)
(a) How to measure the brain activity using noninvasive method? Explain EEG and its frequency components as a method to measure the activity. 5
(b) Write short note of Neuro Muscular junction. What are various diseases occurring in body which causes problem in muscles? 5

-----END OF PAPER-----