

PARUL UNIVERSITY
FACULTY OF ENGINEERING & TECHNOLOGY
B.Tech., Winter 2019 – 20 Examination

Semester: 3**Date: 25/11/2019****Subject Code: 203111201****Time: 2:00pm to 4:00pm****Subject Name: Human Anatomy & Physiology****Total Marks: 60****Instructions:**

1. All questions are compulsory.
2. Figures to the right indicate full marks.
3. Make suitable assumptions wherever necessary.
4. Start new question on new page.

Q.1 Objective Type Questions - (All are compulsory, Each Question carry one mark) (15)

1. Which organelle is described as the 'power house' of the cell?
(a) Nucleus (b) Mitochondria
(c) Endoplasmic Reticulum (d) Ribosomes
2. The life span of erythrocytes is about:
(a) 80 days (b) 90 days
(c) 110 days (d) 120 days
3. The system consisting of the heart and blood vessels is called _____.
(a) Endocrine system (b) Lymphatic system
(c) Circulatory system (d) Nervous system
4. Which of the following is NOT a function of skin?
(a) Respiration (b) Excretion
(c) Sensation (d) Thermoregulation
5. Response to light leading to vision is initiated in which of the following cells?
(a) retinal pigment epithelial cells (b) rod cells
(c) Cone cells (d) both rods and cones
6. _____ carries urine from the kidney to the bladder.
7. The chemical messengers of the endocrine system are known as _____.
8. The sequence of steps in which large food molecules are broken down to their building blocks by enzymes is called _____.
9. The expanded end of a Nephron is the _____.
10. The Organ of Corti is found in the _____ Ear.
11. Which area receives blood directly from the four pulmonary veins?
12. What is the function of Urinary/Excretory System?
13. Which Endocrine gland is known as the 'master gland'?
14. Which bone is found in the shoulder girdle?
15. Which bone contains the mastoid process?

Q.2 Answer the following questions. (Attempt any three) (15)

- (A) Write a short note on structure of cell with schematic diagram.
- (B) Enlist and explain the function of blood.
- (C) Write a brief note on structure and function of skin.
- (D) Explain the mechanism of respiration in detail.

Q.3 (A) Draw and explain the anatomy of heart with Proper labeling. **(07)**

(B) Explain anatomy of eye and physiology of vision with suitable diagram. **(08)**

OR

(B) Draw and Explain structure of hearing system with function of all its parts. **(08)**

Q.4 (A) Write a short note on Male Reproductive system with suitable diagram. **(07)**

OR

(A) Write a short note on Female Reproductive system with suitable diagram. **(07)**

Q.4 (B) Explain physiology of urine formation using necessary schematic diagram. **(08)**