

**PARUL UNIVERSITY**  
**FACULTY OF PHYSIOTHERAPY**  
**BPT, Supplementary Examination November 2017**

**Year: 1****Subject Code: 07101102****Subject Name: Human Physiology****Date: 28-11-2017****Time: 10.00am to 01.00 pm****Total Marks: 70****Instructions:**

1. All questions are mandatory.
2. Figures to the right indicate full marks.
3. Draw Diagram wherever necessary.
4. Write sections – A, sections – B on separate answer sheets.

**SECTION – A**

**Q.1 Describe in detail transport of oxygen (15)**

**OR**

**Q.1 Describe in detail mechanism of pulmonary ventilation (15)**

**Q.2 Write Short Notes (any three) (15)**

- (a) Erythropoiesis
- (b) Cardiac output
- (c) Myasthenia Gravis
- (d) Functions of Gastric Juice

**Q.3 Multiple Choice Question (each 1 Mark) (05)**

**1 Myelin sheath in peripheral nerve is formed by:**

- a. Astrocytes
- b. Mueller's cells
- c. Schwann cells
- d. Oligodendroglial cells

**2 The T-tubules of cardiac muscle are rich in:**

- a. Sodium
- b. Potassium
- c. Calcium
- d. Magnesium

**3. The longest neuron present in our body:**

- a. Corticospinal tract neuron
- b. Corticonuclear
- c. Reticulospinal
- d. Neurons of Cerebellum

**4 CSF is mainly produced by:**

- a. Ependymal
- b. Choroid plexus
- c. Arachnoid granulation
- d. Blood brain barrier

**5 Blood ejected into pulmonary and systemic circulation during rapid ejection phase is:**

- a. 50-55%
- b. 65-70%
- c. 85-90%
- d. 100%

SECTION – B

- Q.1 Describe briefly functions of Hypothalamus** (15)  
**OR**
- Q.1 Describe briefly functions of Basal ganglia** (15)
- Q.2 Write Short Notes (3 out of 4) (5 Marks each)** (15)
- (a) Functions of Growth hormone
  - (b) Micturition reflex
  - (c) Visceral Pain
  - (d) Menstrual Cycle
- Q.3 Multiple Choice Question (each 1 Mark)** (05)
- 1 Substance necessary for complete oxidation of pyruvic acid and lactic acid in a nerve:**
- a. Vitamin B<sub>1</sub>
  - b. Vitamin B<sub>6</sub>
  - c. Vitamin B<sub>12</sub>
  - d. Folic acid
- 2 Sarcomere refers to the portion of myofibril between:**
- a. A and Z band
  - b. Z line and A band
  - c. Two adjacent Z line
  - d. A and I band
- 3 Motor planning and programming is done by all of the following except:**
- a. Basal ganglia
  - b. Hippocampus
  - c. Supplementary motor area
  - d. Neocerebellum
- 4 Spinothalamic tract transmit all the following sensations except:**
- a. Proprioception
  - b. Pain
  - c. Temperature
  - d. Touch
- 5 Which of the following is normally not excreted in urine?**
- a. Uric acid
  - b. Chloride ion
  - c. Glucose
  - d. Creatinine