

**Madhya Pradesh Medical Science University, Jabalpur**  
**B.P.Th. 1st Year Main Examination January – 2019**  
**Paper Code : 19AP000016721**  
**Human Physiology**

Time : 3 Hours      Maximum Marks : 100

**Note :**

- (a) All questions are compulsory to answer.
- (b) Draw diagrams wherever necessary.
- (c) Answer of question and sub question must be written strictly according to the serial order of question paper.

**Q.1 Very short answer the question (50–60 words)     $02 \times 10 = 20$**

- a. Phagocytosis
- b. B-lymphocytes
- c. Name different waves of ECG write normal duration of J wave & QRS complex
- d. Respiratory membrane
- e. Enumerate muscle proteins
- f. Growth hormone
- g. Bilirubin
- h. Antidiuretic hormone
- i. Stroke volume & ejection fraction
- j. Define withdrawal reflex and stretch reflex, give example of each

**Q.2 Short Answer the question (250–300 words)     $05 \times 10 = 50$**

- a. Degenerative & regenerative changes after nerve injury
- b. Explain Frank Starling law in regulation of cardiac output
- c. Myoglobin
- d. Thyroid hormone
- e. Haemoglobin and its functions

**Q.3 Describe in details (450–500 words)     $02 \times 15 = 30$**

- a. Describe the mechanism of skeletal muscle contraction
- b. Describe the mechanism of blood coagulation