BR - VII - CBSGS - BM - Dec 2017

B.P.O.

05/12/2017

Q.P. Code : 23876

(3 Hours) **[Total Marks : 80**

N.B. : (1) **Question No.1** is **compulsory.**
(2) Attempt **any three** questions from the **remaining** questions.
(3) **Draw** suitable **diagrams** wherever **necessary.**
(4) **Figures** to **right** indicate **full marks.**

1. (1) Biomechanics of bone. **5**
   (2) Typical stress-strain curve; short explanation and diagram. **5**
   (3) Classification of synovial joints and diagram of anyone synovial joint. **5**
   (4) Classification of force system. **5**

2. (a) Define lever and mechanical advantage. Classify levers and give one anatomical example for each type. **10**
   (b) Explain the biomechanical behaviour of bone under different loading modes. **10**

3. Explain the human gait cycle with neat stick diagrams and joint motion graphs. **20**

4. (a) Different parts of PTB prosthesis and fabrication of PTB socket. **10**
   (b) Explain the principle of three-point pressure. Also state two applications of the principle. **10**

5. (a) Explain any two instrumentation devices used for gait analysis. **10**
   (b) Classify the vertebre and explain SOMI in detail with a neat diagram. **10**

6. Write short notes on **any FOUR** : **20**
   (1) SACH Foot
   (2) CTEV Shoe
   (3) Milwakee Brace
   (4) Quadrilateral socket
   (5) Terminal devices