

**VINAYAKA MISSION'S RESEARCH FOUNDATION**  
**(DEEMED TO BE UNIVERSITY), SALEM**  
**M.S. DEGREE EXAMINATION - October 2018**

**ORTHOPAEDICS**

**PART –I PAPER I: APPLIED BASIC SCIENCE IN ORTHOPAEDICS**

Time: Three hours

Maximum: 100 marks

(Answer **ALL** questions)

Draw suitable diagrams wherever necessary

- 1. ANATOMY :** **(4 x 5 = 20)**
- a. Anatomy of shoulder joint
  - b. Blood supply of femoral head
  - c. Thenar space
  - d. Bohlers angle
- 2. PHYSIOLOGY :** **(4 x 4 = 16)**
- a. Gait cycle
  - b. Wolf S.Law
  - c. Knee reflex
  - d. Physiology of osteoprogenitor cells
- 3. BIOCHEMISTRY :** **(4 x 4 = 16)**
- a. Biomarkers in osteoarthritis
  - b. Calcitonin
  - c. Bence Jones proteins
  - d. Antinuclear antibodies
- 4. PHARMACOLOGY :** **(4 x 4 = 16)**
- a. Antibiotic prophylaxis
  - b. DMRADS
  - c. Neoadjuvant chemotherapy of bone tumors
  - d. Bactericidal drugs in tuberculosis
- 5. PATHOLOGY :** **(4 x 4 = 16)**
- a. Giant cell tumor
  - b. Pathogenesis of rheumatoid arthritis
  - c. Osteoporosis
  - d. Etiopathology of rickets
- 6. MICROBIOLOGY :** **(4 x 4 = 16)**
- a. Post operative infections
  - b. Bacteriology of open fractures
  - c. Musculoskeletal sepsis
  - d. Gram negative organisms causing osteomyelitis

