BRAINWARE UNIVERSITY

Term End Examination 2024-2025
Programme – B.Sc.(PA)-2023
Course Name – Basics of Orthopedics
Course Code - BPAC401
(Semester IV)

Full Marks : 60 **Time : 2:30 Hours**

[The figure in the margin indicates full marks. Candidates are required to give their answers in their own words as far as practicable.]

Group-A

(Multiple Choice Type Question) 1 x 15=15

1. *Choose the correct alternative from the following :*

(i) Identify the option for knee OA is not recommended .

a) Arthroplasty b) Arhtroscopy
c) Glucosamine and chondroitin d) None

(ii) Identify the reason for which normal basalis is called chondrocranium .

a) It is fixed and ossified bone b) It is ossified in cartilage
c) It is ossified in fibrous tissue d) All

(iii) Select the correct option as synonym for Paget's disease .

a) Osteitis fibrosa. b) Osteitis proliferans
c) Osteitis deformans d) None

(iv) Choose the true for clavicle fracture.

a) Non-union is rare b) Malunion is of no functional significance.
c) Reduction even if achieved is difficult to maintain. d) All are true

(v) Select the correct option for treatment of a severe comminuted fracture in the patella .

a) Physiotherapy alone b) Insertion of a figure-of-eight tension band
c) Patellectomy d) Inserting screws or wire

(vi) Select the primary site involved in rheumatoid arthritis.

a) Articular cartilage b) Subchondral bone
c) Synovial membrane d) Ligaments

(vii) Select the factor that is NOT required for reimplantation of a traumatically amputated limb.

a) Limb preservation b) Shortening of bone
c) Immediate arterial and venous repair d) Routine angiograms

(viii) Select the condition in which non-union is often seen.

a) Fractures of the fourth metatarsal b) Fractures of the neck of the femur

c) Fractures of the condyle of the mandible d) Colles' fractures

(ix) Choose the recognized late complication of fractures.

a) Dupuytrens's contracture b) Hypertrophic non-union
c) Sudeck's atrophy d) Myositis ossificans

(x) Choose the function of the meniscus in the knee joint.

a) It provides the anatomical structure b) It provides nutrients to the bones
c) It acts as a shock absorber, provides stability, and helps distribute weight evenly in the knee joint d) None of these

(xi) Select the nerve that is commonly at risk during total hip arthroplasty.

a) Tibial nerve b) Sciatic Nerve
c) Femoral nerve d) Ulnar nerve

(xii) Select the term for the process of bringing fractured bone ends back into alignment.

a) Reduction b) Fixation
c) Immobilization d) Healing

(xiii) Choose the primary advantage of using closed reduction techniques in fracture management.

a) Lower risk of infection b) Better visualization of fracture site
c) Minimized disruption of soft tissues d) Enhanced bone healing

(xiv) Choose the factor that contributes to delayed bone healing in some fractures.

a) Young age b) Stable fracture pattern
c) Adequate blood supply to the fracture site d) Poor nutrition

(xv) Select the common indication for open reduction and internal fixation (ORIF) of a fracture.

a) Stable, non-displaced fracture b) Greenstick fracture in a child
c) Comminuted fracture with minimal displacement d) Displaced intra-articular fracture

Group-B

(Short Answer Type Questions) 3 x 5=15

2. Write a short note on neuropathic syndrome. (3)
3. Describe the histological changes in bone tissue associated with osteoporosis. (3)
4. Illustrate the concept of osteophyte formation in osteoarthritis and its clinical implications. (3)
5. Describe the types and clinical features of supracondylar fractures of the humerus. (3)
6. Write a short note on pott's disease. (3)

OR

Explain the differential study of injury to tendons. (3)

Group-C

(Long Answer Type Questions) 5 x 6=30

7. Describe the clinical features and complication of tennis elbow? (5)
8. Explain the main causes of osteoporosis, and the process of affect bone density. (5)
9. Justify the role of calcium and vitamin D in bone health and osteoporosis prevention. (5)
10. Justify the role of hormonal changes, particularly estrogen deficiency, in the development of osteoporosis, and the implications for postmenopausal women. (5)
11. Summarize the process of bone healing occur following a fracture, and what factors can influence the speed and effectiveness of this process. (5)
12. Explain the pathogenesis of pathological condition, diagnosed by the Phalen's Test and prepare a management protocol (5)

OR

Explain different clinical tests used for the confirmation of dislocation (5)