MEDICAL EDUCATION RESOURCE

Viva Voce – Joints of Upper Limb

? Viva Voce – Joints of Upper Limb

1. What type of joint is the sternoclavicular joint?

? Saddle-type synovial joint (functionally ball-and-socket).

2. Why is the sternoclavicular joint rarely dislocated?

Because it has **strong ligaments** (costoclavicular, interclavicular) and a **fibrocartilaginous disc** that divides the cavity and stabilizes movement.

3. What is the function of the costoclavicular ligament?

It is the **chief stabilizing ligament** of the sternoclavicular joint; limits elevation of clavicle.

4. What is the type of acromioclavicular joint?

Plane synovial joint with limited gliding movement.

5. Name the two parts of coracoclavicular ligament.

Conoid (medial) and **Trapezoid** (lateral).

6. What forms the coracoacromial arch?

Coracoid process + acromion + coracoacromial ligament.
? *Function:* Prevents superior dislocation of humeral head.

---

7. What type of joint is the shoulder (glenohumeral) joint?

Ball-and-socket synovial joint.

---

8. What are the bones forming the shoulder joint?

Head of humerus and glenoid cavity of scapula.

---

9. What deepens the glenoid cavity?

Fibrocartilaginous **glenoid labrum**.

---

10. Which muscles form the rotator cuff?

SITS: Supraspinatus, Infraspinatus, Teres minor, Subscapularis.

---

11. Which muscle initiates abduction of shoulder?

Supraspinatus – first 15°.

---

12. What muscle is the chief abductor of shoulder?

Deltoid (middle fibres).

---

13. What movement occurs at the shoulder joint during throwing?

Combination of **flexion, extension, abduction, rotation, and circumduction.**

---

14. Which nerve is injured in shoulder dislocation?

Axillary nerve. ? paralysis of deltoid, sensory loss over regimental badge area.

---

15. What are the factors maintaining stability of the shoulder joint?

- Rotator cuff muscles.
- Coracoacromial arch.
- Glenoid labrum.
- Long head of biceps tendon.

---

16. What is the type of elbow joint?

Complex hinge-type synovial joint.

---

17. What are the articulations forming the elbow joint?

- Humeroulnar (trochlea–trochlear notch)
- Humeroradial (capitulum–head of radius)

---

18. Name the main ligaments of elbow joint.

Ulnar collateral, radial collateral, annular ligament of radius.

---

19. What is the carrying angle?

Angle between long axis of humerus and forearm when elbow extended ? **10–15° (M)**, **15–20° (F)**.

---

20. What is the significance of carrying angle?

Keeps forearm clear of hips during walking; aids in bringing hand to mouth.

---

21. Name the muscles producing flexion and extension of elbow.

- **Flexion:** Biceps, Brachialis, Brachioradialis.
- **Extension:** Triceps, Anconeus.

---

22. What is the axis of supination and pronation?

Line through **head of radius (above)** and **head of ulna (below).**

---

23. What type of joint is the superior radioulnar joint?

Pivot-type synovial joint.

---

24. What ligament holds the head of radius in position?

Annular ligament of radius.

---

25. What is the direction of fibres of interosseous membrane?

Downward and medially from radius to ulna.

---

26. What is the function of interosseous membrane?

- Connects radius and ulna.
- Provides muscle attachment.
- Transmits forces from radius to ulna.

---

27. What type of joint is the wrist (radiocarpal) joint?

Ellipsoid (condyloid) synovial joint.

28. Which bones take part in the wrist joint?

Distal radius + articular disc (above), Scaphoid, Lunate, Triquetral (below).

---

29. What are the chief ligaments of the wrist joint?

Palmar radiocarpal, dorsal radiocarpal, radial and ulnar collaterals.

---

30. What movements occur at wrist joint?

Flexion, extension, abduction (radial deviation), adduction (ulnar deviation), and circumduction.

---

31. Which carpal bone is most commonly fractured?

Scaphoid ? tenderness in anatomical snuffbox.

---

32. What type of joint is the 1st carpometacarpal joint (thumb)?

Saddle-type synovial joint.

---

33. What movements are possible at the 1st CMC joint?

Flexion, extension, abduction, adduction, opposition, reposition.

---

34. What is the muscle responsible for opposition of thumb?

Opponens pollicis.

---

35. What is the functional importance of the thumb joint?

Allows **precision grip** and **fine manipulation.**

---

36. What type of joint is the MCP joint?

Condyloid (ellipsoid) synovial joint.

---

37. What movements are possible at MCP joint?

Flexion, extension, abduction, adduction, and limited circumduction.

---

38. What type of joint is the interphalangeal (IP) joint?

Hinge-type synovial joint ? flexion and extension only.

---

39. What prevents hyperextension at MCP and IP joints?

Palmar (volar) plate.

---

40. Which muscles flex and extend the fingers?

- **Flexors:** FDS (PIP), FDP (DIP).
- **Extensors:** EDC, lumbricals, interossei.

---

41. What is the middle finger’s role in hand movement?

Acts as **axis for abduction and adduction**; can abduct both sides but cannot adduct.

---

42. What is Mallet finger?

Avulsion or rupture of **extensor tendon** at DIP joint ? drooping of fingertip.

---

43. What is Boutonnière deformity?

Flexion of PIP + hyperextension of DIP due to rupture of **central slip of extensor tendon.**

---

44. What is Swan-neck deformity?

Hyperextension of PIP + flexion of DIP ? seen in **rheumatoid arthritis.**

---

45. What is Dupuytren’s contracture?

Fibrosis of **palmar fascia** ? flexion deformity of ring and little fingers.

---

46. What is “trigger finger”?

Thickening of flexor tendon sheath ? finger locks during flexion and releases with a snap.

---

47. What is a “pulled elbow”?

Subluxation of **radial head** from annular ligament (common in children).

---

48. What is “tennis elbow”?

Inflammation of **common extensor origin (ECRB)** at lateral epicondyle.

---

49. What is “golfer’s elbow”?

Inflammation of **common flexor origin** at medial epicondyle.

---

50. What are the clinical deformities seen in rheumatoid arthritis of hand?

- Swan-neck deformity
- Boutonnière deformity
- Ulnar deviation at MCP joints

? **Summary Insight**

> The joints of the upper limb are designed for **maximum movement and functional precision** — each stabilized by unique ligament–muscle systems.
> In viva, emphasize **joint type, bones involved, movements, and key ligaments**

along with **common clinical correlations**.