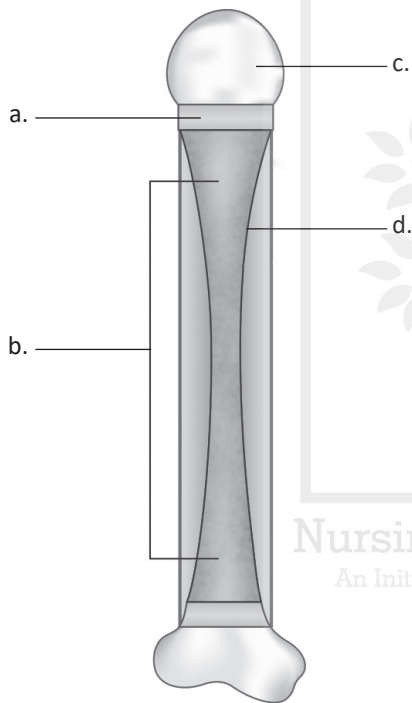


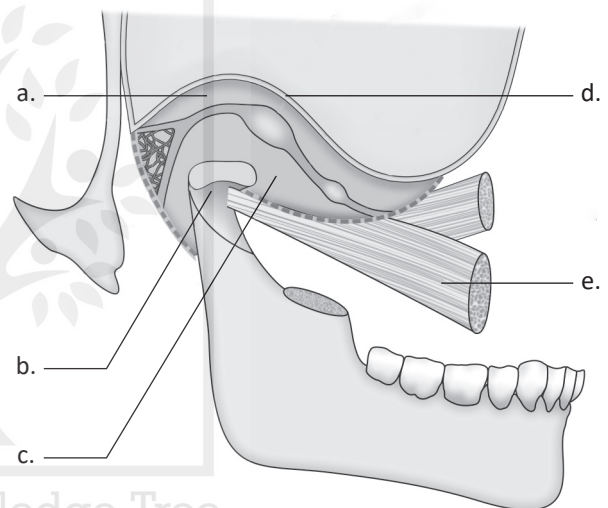
Question 1: Label the given figures:

i Name a-d in figure showing primary cartilaginous joint.



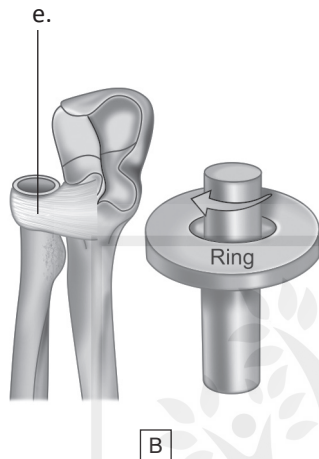
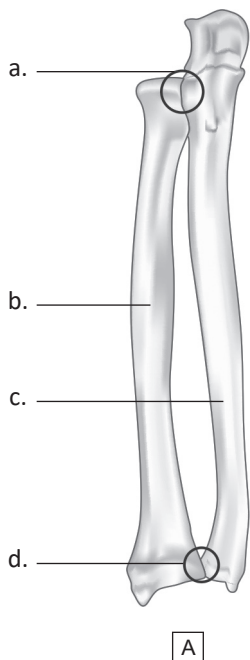
- a.
- b.
- c.
- d.

ii Name a-e in figure showing temporomandibular joint.



- a.
- b.
- c.
- d.
- e.

iii Name a-e in figure showing radioulnar joints—A. Superior and inferior; B. Pivot type of joint.



- a.
- b.
- c.
- d.
- e.

Question 2:

i. Differentiate between bone and cartilage.

Features	Bone	Cartilage
.....
.....
.....
.....
.....
.....

ii. Name paired and unpaired bones of skull and face.

Region	Paired bones	Unpaired bones
a. Skull cap and bone
b. Ossicles
c. Face

Question 3: Define:

- i. **Flexion of elbow joint:**
- ii. **Abduction of shoulder joint:**
- iii. **Pronation of forearm:**
- iv. **Opposition of thumb:**
- v. **Extension of knee joint:**
- vi. **Dorsiflexion of ankle joint:**

Question 4: Write briefly about:

- i. **Classification of joints according to regions with an example for each:**
- ii. **Various types of synovial joints:**
- iii. **Movements of shoulder joint with 1–2 muscles performing these movements:**

Movements	Muscles
.....
.....
.....
.....

Contd...

Movements	Muscles
.....
.....
.....
.....

iv. **Movements of knee joint and the muscles responsible for the movements:**

Movements	Muscles
.....
.....
.....
.....

v. **Movements at temporomandibular joint:**

Movements	Muscles responsible
.....
.....
.....
.....
.....

Question 5: Write short notes on following clinical conditions:

- i. **Dislocation and subluxation of a joint:**
-
-
-
- ii. **Rheumatoid arthritis:**
-
-
-

- iii. **Prolapsed intervertebral disc:**
-
-
- iv. **Gout:**
-
-

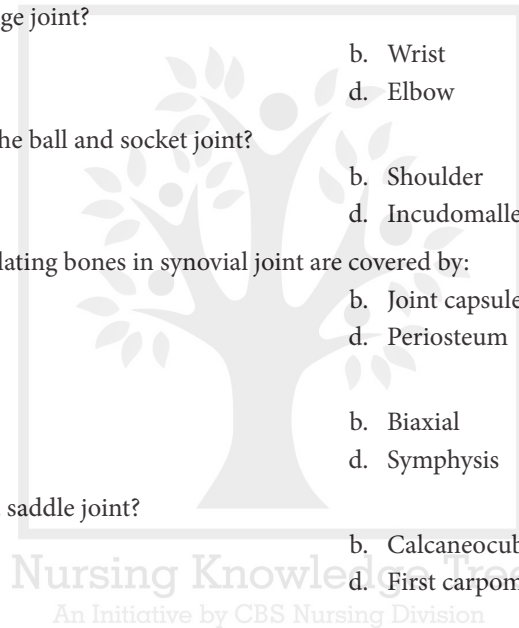
Question 6: Fill in the blanks:

- i. Articulation of two or more bones or cartilage form a _____. It is a device to permit movements, to provide protection and to help in speech and in respiration.
- ii. Cartilages are found _____ and _____
- iii. **Synovial:** These joints permit movement as there is synovial fluid between the ends of the articulating bones. These are of various types, e.g.,
- Plane synovial, e.g., _____
 - Hinge joint, e.g., _____
 - Ellipsoid type, e.g., _____
 - Saddle type, e.g., _____
 - Ball and socket type, e.g., _____
 - Condyloid, e.g., _____
 - Pivot joint, e.g., _____
- iv. In fingers, the axis of movements passes through middle of _____.
- v. Supination/pronation are special movements of bones of forearm. During supination, the two bones are _____ to each other and palm faces forwards.
- vi. In pronation, radius _____ over ulna and palm faces backwards/downwards.
- vii. In protraction of temporomandibular joint, the lower jaw comes more in front of _____ and in retraction lower jaw _____.
- viii. Joints are surrounded by the _____. The capsule is lined by _____ with synovial fluid.

Question 7: Multiple choice questions:

- i. Fall of a patient from a ladder gives pain in shoulder region. He is not able to abduct the shoulder. Which part is likely to be fractured?
- | | |
|-----------------------------|-------------------------------|
| a. Medial epicondyle | b. Shaft of humerus |
| c. Surgical neck of humerus | d. Anatomical neck of humerus |

- ii. All statements about hip joint are true; except:
- | | |
|---|---|
| a. Supported strongly by ischiofemoral ligament | b. Supported strongly by iliofemoral ligament |
| c. Supplied by nerve to rectus femoris | d. Supplied by nerve to obturator internus |
- iii. Tender swelling in front of right knee of a housemaid may be:
- | | |
|-------------------------|---------------------------|
| a. Clergyman's knee | b. Suprapatellar bursitis |
| c. Prepatellar bursitis | d. Lateral meniscus tear |
- iv. Which statement about articular cartilage is correct?
- | | |
|---------------------------------------|------------------------------------|
| a. It is devoid of perichondrium | b. It is devoid of nerves |
| c. It is covered by synovial membrane | d. It contains lots of capillaries |
- v. All the statements about synovial membrane are correct; except:
- | | |
|-------------------------------|--------------------------------------|
| a. It is avascular | b. It is modification of deep fascia |
| c. It secretes synovial fluid | d. If damaged, it regenerates |
- vi. Which of the following is a hinge joint?
- | | |
|------------------------|----------|
| a. Superior radioulnar | b. Wrist |
| c. Metacarpophalangeal | d. Elbow |
- vii. Which of the following is not the ball and socket joint?
- | | |
|--------------------------|--------------------|
| a. Incudostapedial | b. Shoulder |
| c. Talocalcaneonavicular | d. Incudomalleolar |
- viii. The articular surfaces of articulating bones in synovial joint are covered by:
- | | |
|------------------------|------------------|
| a. Articular cartilage | b. Joint capsule |
| c. Synovial membrane | d. Periosteum |
- ix. Condylar joints are:
- | | |
|---------------|--------------|
| a. Uniaxial | b. Biaxial |
| c. Multiaxial | d. Symphysis |
- x. Which of the following is not a saddle joint?
- | | |
|---------------------|--------------------------|
| a. Sternoclavicular | b. Calcaneocuboid |
| c. Wrist joint | d. First carpometacarpal |
- xi. Which is not a fibrous joint?
- | | |
|-----------------|--------------------------|
| a. Sutures | b. Gomphosis |
| c. Xiphisternal | d. Inferior tibiofibular |
- xii. Following are the features of manubriosternal joint; except:
- | | |
|---|---|
| a. It is a secondary cartilaginous joint | b. It is a symphysis type of joint |
| c. It shows synovial cavity in 30% of cases | d. It moves slightly during respiration |
- xiii. Which of the following is a primary cartilaginous joint?
- | | |
|-----------------------|---------------------|
| a. Ist sternochondral | b. Xiphicostal |
| c. Intervertebral | d. Sternoclavicular |
- xiv. Name the joint present between epiphysis and diaphysis:
- | | |
|----------------------------|--------------------------|
| a. Fibrous | b. Primary cartilaginous |
| c. Secondary cartilaginous | d. Synovial |
- xv. First sternochondral joint is:
- | | |
|-------------------|------------------|
| a. Synchrondrosis | b. Syndesmosis |
| c. Symphysis | d. None of these |



Question 8: Match the following:

- | | |
|-------------------------------------|------------------------------------|
| i. Carpometacarpal of thumb | a. Secondary cartilaginous |
| ii. Sutures of skull | b. Saddle variety |
| iii. Intervertebral disc | c. Fibrous joints |
| iv. Between epiphysis and diaphysis | d. Pivot variety of synovial joint |
| v. Median atlantoaxial joint | e. Primary cartilaginous |

Question 9: Write True or False:

- i. Shoulder joint has tight capsule. _____
- ii. Types of joints based on the type of connective tissue are—fibrous, cartilaginous, synovial _____
- iii. Elevation in temporomandibular joint occurs by temporalis muscle. _____
- iv. Cruciate ligaments are within synovial cavity in a knee joint. _____
- v. Knee joint can only rotate when extended. _____

Question 10: Give one word answer for the following statements:

- i. The type of joint that is completely immovable, such as the sutures found in the skull.
- ii. The lubricating fluid found within the joint cavity that reduces friction between articular cartilages.
- iii. The crescent-shaped fibrocartilage pads found in the knee that help absorb shock and stabilize the joint.
- iv. A small, fluid-filled sac lined by a synovial membrane that provides a cushion between bones and tendons or muscles.
.....
- v. The movement of a limb away from the midline of the body.
- vi. The most mobile type of synovial joint, providing the greatest range of motion (e.g., the shoulder).