

## Gr 10 Animal support systems

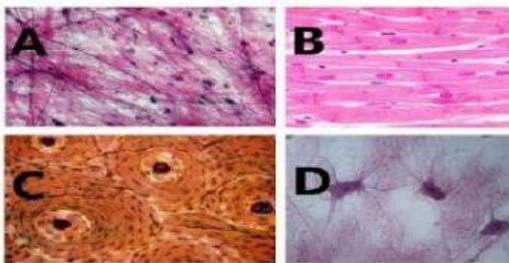
1. Advantages of an exoskeleton include... \*

- provision of support and attachment for muscles
- they are thin and flexible at the joints for rapid movement
- chiton can grow and stretch as the animal grows
- options 1 and 2
- All of the above

2. A disadvantage of an endoskeleton is that... \*

- the body is flexible due to joints
- it protects internal organs
- repair takes extended timeframes
- there are more positions for muscle attachment, improving muscle power

3. Which of the animal tissues depicted below, represents bone? \*



- A
- B
- C
- D

4. Which one of the following does NOT form part of the appendicular skeleton? \*

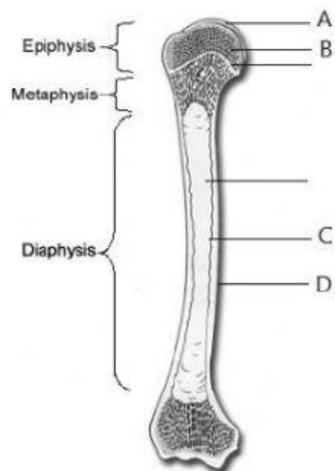
- tibia
- ulna
- clavicle
- sternum

5. Study the x-rays below, showing frontal and side view of the injury. The patient fell, landing on his hands and knees. Which bone is fractured? \*



- Radius
- Ulna
- Tibia
- Fibula

6. Study the diagram of a long bone below and provide the correct labels for the parts labelled A, B, C and D respectively. \*



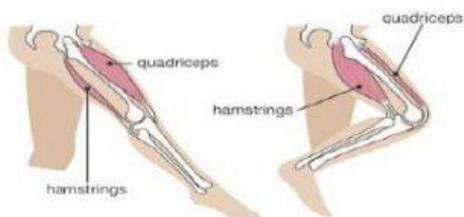
- Head, Compact bone, Endosteum, Cartilage
- Cartilage, Spongy bone, Endosteum, Periosteum
- Head, Spongy bone, Red bone marrow, Endosteum
- Cartilage, Red bone marrow, Yellow bone marrow, Endosteum

7. What type of synovial joint is depicted below. \*



- Hinge
- Pivot
- Ball-and-socket
- Gliding

8. Lesley bends her leg, as seen depicted below. The antagonistic pair of muscles are shown. Which one of the following actions produces the movement? \*



- Contraction of the quadriceps and relaxation of the hamstrings
- Contraction of the hamstrings and relaxation of the quadriceps
- Contraction of the quadriceps and contraction of the hamstrings
- Relaxation of the hamstring and contraction of the quadriceps

9. What is the function of a ligament? \*

- To join muscles to tendons
- To join muscles to bones
- To join the cells in compact bone closer together
- To join bones to bones

10. What makes bones strong? \*

- Blood and marrow
- Collagen
- Calcium and phosphorous salts
- Calcium and sodium salts

11. The largest unit of muscle contraction is the... \*

- Sarcolemma
- Sacroplasm
- Sarcomere
- Sacrofibril

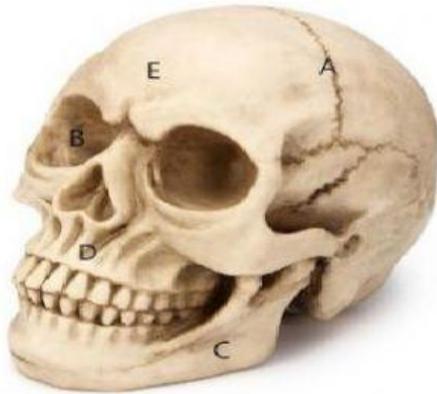
12. What skeletal health condition/disease is depicted in the image below? \*



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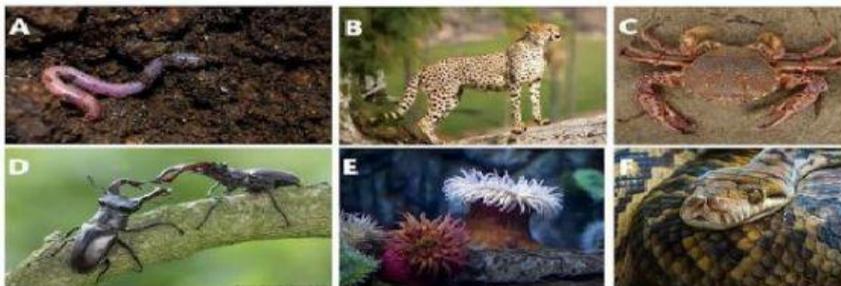
- Rickets
- Osteoarthritis
- Osteoporosis
- Fracture

13. Study the image below and provide labels for the parts of the human skull labelled A, C, D and E, respectively. \*



- Cranium, Mandible, Teeth, Orbit
- Suture, Mandible, Maxilla, Cranium
- Suture, Maxilla, Mandible, Forehead
- Foramen magnum, Mandible, Maxilla, Cranium

14. Study the images below. Using the letters only, identify which animals have hydrostatic skeletons? \*



- E, F
- B, E
- A, E
- A, F

15. How many lumbar vertebrae are there in the human skeleton? \*

- Five
- Seven
- Twelve
- Four