Muscles, Bones & Joints

INVESTIGATION

Name:_____ (_____/30)

Study the images of a long-bone

1. a) Name the structures labelled:

A: _____

D: _____ (covering)

b) What type of bone is found at position

B: _____

C: _____

(4 marks)

2. What would you expect to find filling structure A?

_____ (1 mark)

3. What is ONE function of structure D?

_____ (1 mark)

4. Explain the functional benefit of the way structure B is "designed". Why is it not solid?

_____

_____

_____

_____

(2 marks)

5. Name ONE long bone in the human body

_____ (1 mark)

6. What are the TWO types of joints this bone will make at either end?

_____

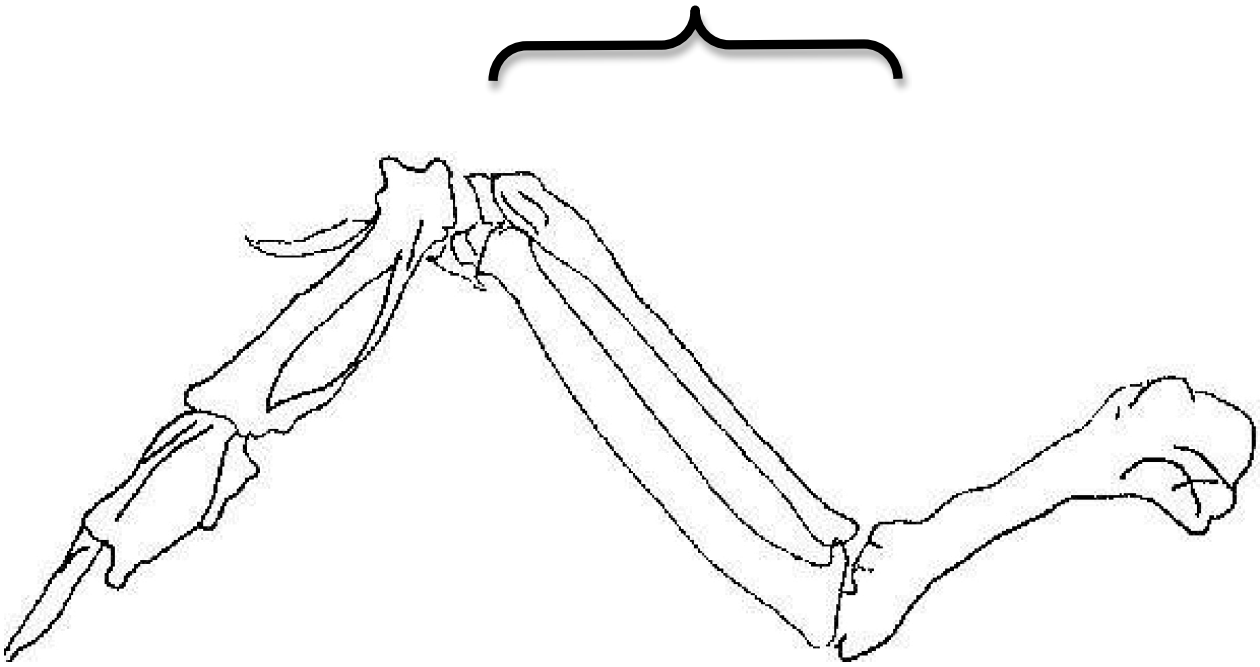
_____

(2 marks)

Study the images of a dissected chicken wing

7. Draw in the flexor and extensor muscles as well as the tendons and cartilage on the diagram below that are required to move the wing in the area indicated

   Use coloured pencils to shade in your additions and match this with the colour key below.

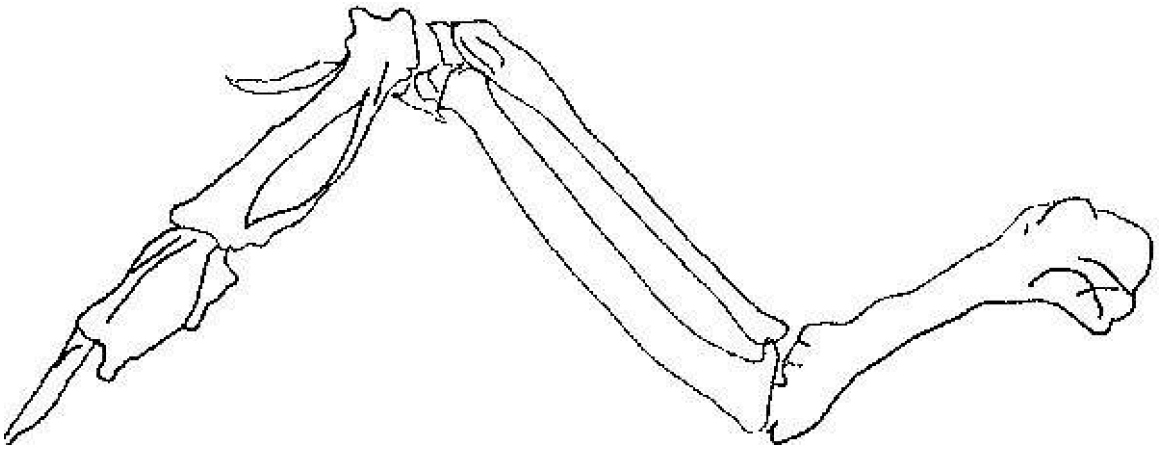


Colour Key

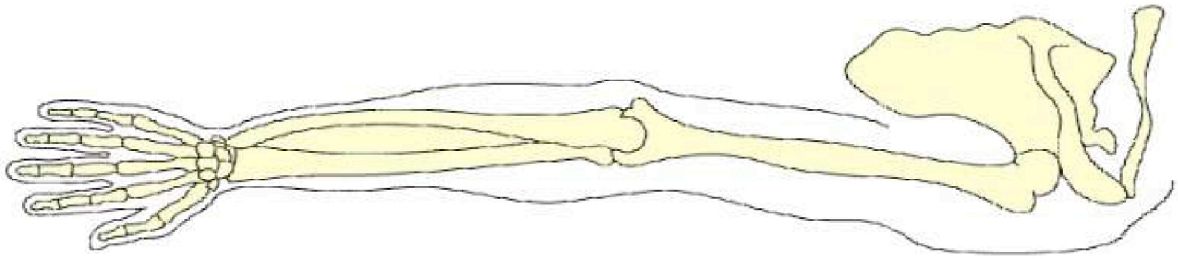
☐ = Flexor ☐ = Extensor ☐ = Tendon ☐ = Cartilage

(4 marks)

8. Label the Humerus, Radius, Ulna, and Phalanges on the chicken and human bones on the diagrams below.



(4 marks)



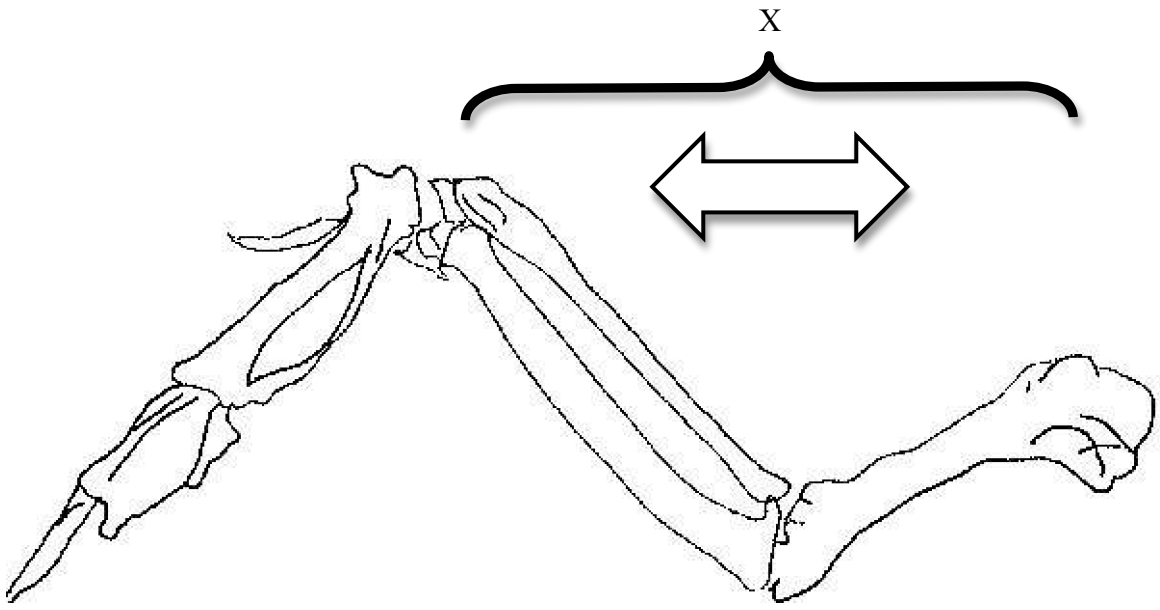
(4 marks)

9. Why are some bones irregularly shaped, or have notches, as opposed to smooth, rounded ends?

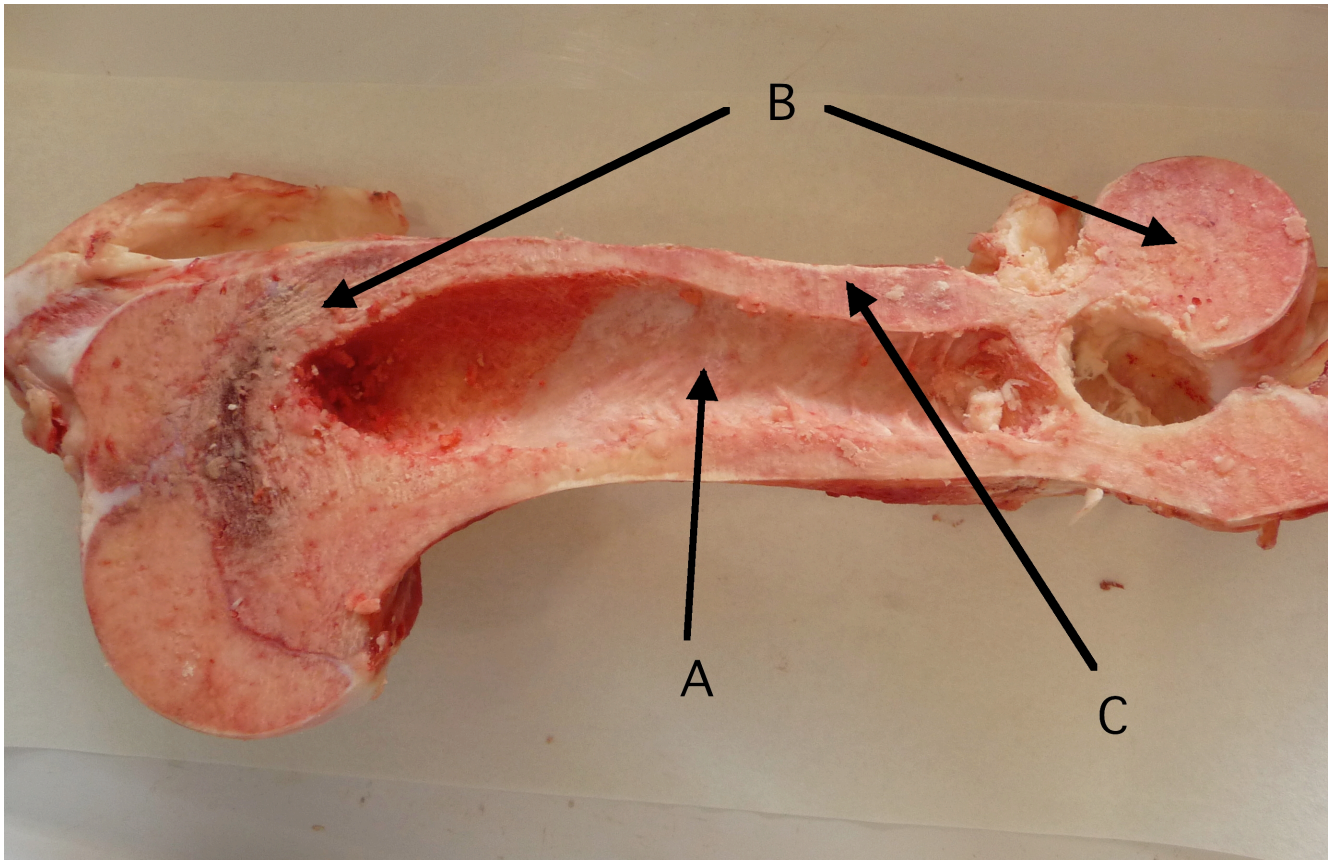
(2 marks)

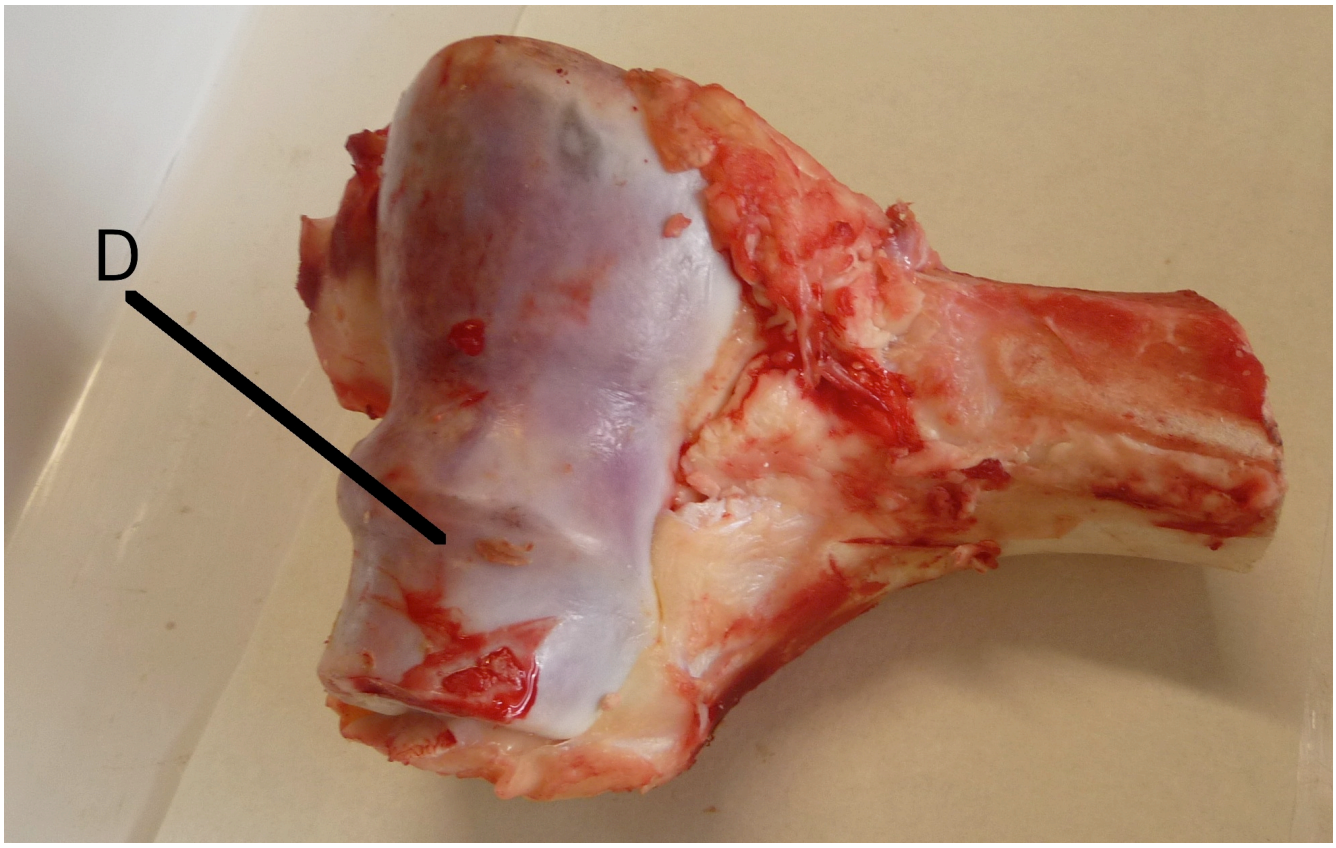
10. Based on your observations, explain the roles of muscles, tendons, and bones in the area labelled X when moving the wing **back-<u>and</u>-forth**. Choose words from the box below in your answer.

adductor	flexor	extensor	abductor	radius	ulna	humerus



(5 marks)


B
A
C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