

KIN 334 Functional Anatomy and Kinesiology Example Parts of Exams—Solutions

Part 2* — Match the following muscles with their origins, insertions, actions, and innervations. Choose from the attached lists for the relevant variables. Write the appropriate numbers in the spaces below except where marked by an “X”. Select **only one** origin, insertion, and innervation for each muscle. Select the **two most important actions** for each muscle unless the muscle does only one thing (in which case list only one and write “only” in the second blank). When choosing “most important”, preference should be given for actions for which the muscle is a prime mover. Include actions for which the muscle is an assistant mover only if does not have two or more prime mover actions. In each case **be sure to select both the joint and the action** (e.g., elbow flexion is C8; shoulder joint adduction is B11) (2 pt each, 10 pts).

	Muscle	Origin	Insertion	Joint+ Action 1	Joint+ Action 2	Innervation
1.	Anterior deltoid	3	X	B8	B14	X
2.	Serratus anterior	X	2	X	X	5

Origins and Insertions

1. Anterior surfaces of third to fifth ribs
2. Anterior aspect of whole length of medial border of scapula
3. Anterior lateral third of clavicle
4. Coracoid process of scapula and upper lip of glenoid fossa
5. Deltoid tuberosity on lateral humerus
6. Distal two thirds of lateral condyloid ridge of humerus
7. Infraglenoid tubercle below inferior lip of glenoid fossa of scapula
8. Lateral aspect of acromion
9. Lesser tubercle of humerus
10. Medial two thirds of supraspinatus fossa
11. Medial border of scapula, below scapular spine
12. Medial lip of intertubercular groove of humerus
13. Middle of medial border of humeral shaft
14. Posterior surface of lateral condyle of humerus
15. Posterior aspect of lateral third of clavicle
16. Spinous processes of fourth through twelfth thoracic vertebrae
17. Surface of upper nine ribs at side of chest
18. Triangular space at base of scapular spine
19. Upper half of posterior surface of humerus
20. None of the above

Joints

- A. shoulder girdle
- B. shoulder joint
- C. elbow
- D. radioulnar
- E. wrist

Actions

1. Elevation
2. Depression
3. Upward rotation
4. Downward rotation
5. Protraction
6. Retraction
7. Upward tilt
8. Flexion
9. Extension
10. Abduction
11. Adduction
12. Internal rotation
13. External rotation
14. Horizontal adduction
15. Horizontal abduction

Innervations

1. Accessory nerve
2. Axillary nerve
3. Dorsal scapula nerve
4. Lateral pectoral nerve
5. Long thoracic nerve
6. Lower subscapular nerve
7. Medial pectoral nerve
8. Musculocutaneous nerve
9. Suprascapula nerve
10. Thoracodorsal nerve
11. Upper subscapular nerve
12. None of the above

*Note: Part 1 of each exam contains multiple choice questions.

Part 3 — Draw and label the following muscles on one of the following skeletal charts (3 pts each, 6 pts total):

1. Latissimus dorsi

2. Pectoralis minor

Part 4 — Label and point to the following bones, landmarks, or joints on one of the following skeletal charts (1 pt each, 4 pts total):

- A. Lesser tubercle of humerus
- C. styloid process of radius

- B. Superior angle of scapula
- D. Spinous process of 7th cervical vertebra

NOTE: Use whichever chart is best to show that particular muscle, landmark, bone, or joint.
For “labels” you do not need to write anything down other than numbers 1, 2 and letters A, B, C, D as appropriate.

