

RUHANI COLLEGE | REGISTERED MASSAGE THERAPY DIPLOMA
RU RMT 02 — ANATOMY & PHYSIOLOGY 01
QUIZ 2 — MYOLOGY FOUNDATIONS

Student Name		Student Number	
Date		Instructor	
Cohort / Section		Accommodation applies	Yes / No

Weight	19% of the final course grade
Total marks	40 marks
Writing time	40 minutes
Scope	Myology Lectures 1, 2, and 3 only: introduction to myology; muscles of mastication and muscles of facial expression; the hyoid region. The muscles of the back, trunk, and spinal column taught later today are NOT examined on this quiz.
Sections	Section A — 20 multiple choice (20 marks) Section B — 10 origin–insertion–action matching (10 marks) Section C — 5 short answer (10 marks)
CLOs assessed	CLO 7 — muscle tissue types and foundational myology terminology CLO 8 — origin, insertion, action, and functional role of selected muscles CLO 9 — analysis of simple movements

Instructions to Students

- Do not open this paper until instructed to do so.
- Write in pen. Print your name and student number on this page before you begin.
- This is a closed-book assessment. No notes, textbooks, atlases, models, origin–insertion–action tables, mobile devices, smart watches, or translation tools are permitted. Bags and devices must be stowed at the front of the room.
- Answer every question. There is no penalty for an incorrect answer, so an educated attempt is always worth making.
- Section A: circle ONE letter only for each question. A question with two letters circled, or with an unclear correction, is scored as incorrect. To change an answer, cross out the first response clearly and circle your final choice.
- Section B: write ONE letter in each box. There are more descriptions than muscles; some descriptions are not used.
- Section C: each question is worth 2 marks and part marks are available. Answer in complete sentences within the space provided.
- Use precise anatomical terminology. Where a question asks for an action, state the action and the structure moved — "elevates the mandible," not "closes the jaw."
- Spelling is not marked, provided that the intended term is unambiguous. A misspelling that produces a different anatomical term is marked as incorrect.
- If you require clarification, raise your hand. The invigilator will not interpret content for you.
- Remain seated until your paper has been collected and the count has been reconciled.
- Reproducing, photographing, or discussing the content of this paper is a breach of assessment security under the institutional academic integrity policy.

Section	Marks Available	Marks Awarded
A — Multiple Choice	20	
B — Origin–Insertion–Action Matching	10	
C — Short Answer	10	
TOTAL	40	
Percentage		
Marker initials / date		

Section A — Multiple Choice

20 questions. 1 mark each. 20 marks total. Circle ONE letter only for each question.

1. Which type of muscle tissue is striated in appearance and under involuntary control? (1 mark)
 - A) Skeletal muscle
 - B) Cardiac muscle
 - C) Smooth muscle
 - D) Both cardiac and smooth muscle
2. An aponeurosis is best described as: (1 mark)
 - A) A cord-like band of dense connective tissue joining muscle to bone
 - B) A flat, sheet-like tendon that attaches muscle to bone or to another muscle
 - C) A fibrous sheath surrounding an individual muscle fibre
 - D) A band of dense connective tissue joining bone to bone
3. In the conventional description of a muscle attachment, the origin is: (1 mark)
 - A) always the proximal attachment
 - B) always the distal attachment
 - C) the more fixed or stable of the two attachments
 - D) the attachment closer to the midline of the body
4. A muscle develops tension while lengthening under load, as occurs when a weight is lowered slowly and with control. This is: (1 mark)
 - A) a concentric contraction
 - B) an eccentric contraction
 - C) an isometric contraction
 - D) muscular relaxation
5. A muscle develops tension but its length does not change and no movement occurs at the joint. This is: (1 mark)
 - A) a concentric contraction
 - B) an eccentric contraction
 - C) an isometric contraction
 - D) a passive stretch
6. During a given movement, the muscle that opposes the action of the agonist is the: (1 mark)
 - A) synergist
 - B) antagonist
 - C) fixator
 - D) prime mover
7. The characteristic of skeletal muscle that describes its ability to return to its original length after being stretched is: (1 mark)
 - A) excitability
 - B) contractility
 - C) extensibility
 - D) elasticity
8. In the lever systems of the body, the fulcrum is represented by the: (1 mark)
 - A) muscle
 - B) tendon
 - C) joint
 - D) bone
9. Which action of the temporalis distinguishes it from the masseter? (1 mark)
 - A) Elevation of the mandible

- B) Retraction of the mandible
 - C) Protraction of the mandible
 - D) Depression of the mandible
- 10.** The temporalis inserts on the: *(1 mark)*
- A) angle and lateral ramus of the mandible
 - B) coronoid process and anterior border of the ramus of the mandible
 - C) neck of the mandible and the articular disc
 - D) medial surface of the ramus of the mandible
- 11.** The masseter originates on the: *(1 mark)*
- A) temporal fossa
 - B) zygomatic arch
 - C) lateral pterygoid plate of the sphenoid
 - D) styloid process of the temporal bone
- 12.** The masseter inserts on the: *(1 mark)*
- A) coronoid process of the mandible
 - B) angle and lateral surface of the ramus of the mandible
 - C) body of the hyoid bone
 - D) mental protuberance of the mandible
- 13.** Which muscle of mastication protracts the mandible and assists in opening the jaw? *(1 mark)*
- A) Temporalis
 - B) Masseter
 - C) Medial pterygoid
 - D) Lateral pterygoid
- 14.** The medial pterygoid and the masseter act together as a sling around the mandible. Their shared action is: *(1 mark)*
- A) powerful elevation of the mandible
 - B) depression of the mandible
 - C) retraction of the mandible
 - D) elevation of the hyoid bone
- 15.** What structural feature distinguishes the muscles of facial expression from most other skeletal muscles? *(1 mark)*
- A) They have no origin
 - B) They attach into the skin and superficial fascia rather than from bone to bone
 - C) They are composed of smooth muscle
 - D) They cross two joints
- 16.** The action of the orbicularis oris is to: *(1 mark)*
- A) close and purse the lips
 - B) close the eyelids
 - C) draw the angle of the mouth superolaterally
 - D) compress the cheek against the teeth
- 17.** The zygomaticus major draws the angle of the mouth: *(1 mark)*
- A) inferiorly and laterally
 - B) superiorly and laterally
 - C) medially
 - D) inferiorly and medially
- 18.** Which statement about the hyoid bone is correct? *(1 mark)*
- A) It articulates with the mandible at a synovial joint
 - B) It articulates with the styloid process of the temporal bone
 - C) It does not articulate directly with any other bone and is suspended by muscles and ligaments

D) It is a component of the vertebral column

19. When the mandible is fixed, the suprahyoid muscles as a group: *(1 mark)*

- A) depress the hyoid bone
- B) elevate the hyoid bone
- C) depress the larynx
- D) retract the mandible

20. Apart from the digastric, which muscle of the hyoid region has two bellies joined by an intermediate tendon? *(1 mark)*

- A) Mylohyoid
- B) Sternohyoid
- C) Omohyoid
- D) Thyrohyoid

Section B — Origin–Insertion–Action Matching

10 questions. 1 mark each. 10 marks total.

Matching Set A — Muscles Acting on the Mandible and the Oral Cavity

Match each muscle in the left column with the correct origin–insertion–action description from the right column. Write the letter of your answer in the box provided. Each letter is used once or not at all. There are more descriptions than muscles.

No.	Muscle	Answer
21	Temporalis	
22	Masseter	
23	Medial pterygoid	
24	Lateral pterygoid	
25	Buccinator	

Descriptions:

A	Origin: zygomatic arch. Insertion: angle and lateral surface of the ramus of the mandible. Action: elevates the mandible.
B	Origin: greater wing and lateral pterygoid plate of the sphenoid. Insertion: neck of the mandible and the articular disc of the temporomandibular joint. Action: protracts the mandible and assists depression.
C	Origin: styloid process of the temporal bone. Insertion: body of the hyoid bone. Action: elevates and retracts the hyoid bone.
D	Origin: temporal fossa and temporal lines. Insertion: coronoid process and anterior border of the ramus of the mandible. Action: elevates and retracts the mandible.
E	Origin: zygomatic bone. Insertion: angle of the mouth. Action: draws the angle of the mouth superiorly and laterally.
F	Origin: medial surface of the lateral pterygoid plate of the sphenoid. Insertion: medial surface of the ramus and angle of the mandible. Action: elevates the mandible and assists protraction and lateral deviation.
G	Origin: alveolar processes of the maxilla and mandible and the pterygomandibular raphe. Insertion: the angle of the mouth, blending with orbicularis oris. Action: compresses the cheek against the teeth.

Matching Set B — Muscles of the Hyoid Region

Match each muscle in the left column with the correct origin–insertion–action description from the right column. Write the letter of your answer in the box provided. Each letter is used once or not at all. There are more descriptions than muscles.

No.	Muscle	Answer
26	Mylohyoid	
27	Geniohyoid	
28	Stylohyoid	
29	Sternohyoid	
30	Thyrohyoid	

Descriptions:

A	Origin: manubrium of the sternum and the medial end of the clavicle. Insertion: body of the hyoid bone. Action: depresses the hyoid bone.
B	Origin: inferior mental spine on the internal surface of the mandible. Insertion: body of the hyoid bone. Action: elevates and draws the hyoid bone anteriorly; depresses the mandible when the hyoid is fixed.
C	Origin: superior border of the scapula. Insertion: body of the hyoid bone by way of an intermediate tendon. Action: depresses and retracts the hyoid bone.
D	Origin: oblique line of the thyroid cartilage. Insertion: body and greater horn of the hyoid bone. Action: depresses the hyoid bone; elevates the larynx when the hyoid is fixed.
E	Origin: mylohyoid line of the mandible. Insertion: body of the hyoid bone and a median raphe. Action: elevates the hyoid bone and the floor of the mouth; depresses the mandible when the hyoid is fixed.
F	Origin: manubrium of the sternum. Insertion: oblique line of the thyroid cartilage. Action: depresses the larynx and the thyroid cartilage.
G	Origin: styloid process of the temporal bone. Insertion: body of the hyoid bone. Action: elevates and retracts the hyoid bone.

Section C — Short Answer

5 questions. 2 marks each. 10 marks total. Part marks are available; attempt every part of every question. Answer in complete sentences within the space provided.

31. Define the terms origin and insertion (1 mark), and state one circumstance in which these roles reverse (1 mark). (2 marks)

32. Name the four roles that a muscle can play during a movement. (2 marks)

33. Explain why the classical origin–insertion model describes the muscles of facial expression poorly. (2 marks)

34. Name two muscles of facial expression and state one action of each. (2 marks)

35. Explain the functional relationship between the suprahyoid and infrahyoid muscle groups. (2 marks)

END OF QUIZ 2

Check that you have answered all 35 questions and that your name and student number are on the front page. Remain seated until your paper is collected.