

Course No: PHRM 1306  
Course Title: Anatomy & Physiology 1  
Date: ٠١ / ١٢ / 2016  
No. of Questions: (6)  
Time: 1hour  
Using Calculator (No)

University of Palestine  
  
Second Exam  
First term 2016/2017  
Total Grade: 15 Marks

Instructor Name: Dr. Amjad El-Shanti  
Student No.: \_\_\_\_\_  
Student Name: \_\_\_\_\_  
College Name: Pharmacy  
Dep./Specialist:  
Using Dictionary (No)

**Question One :** (2.5 marks)

**Put the sign (√) against the right sentences and the sign (X) against the wrong sentences:**

- 1- ( ) The most abundant mineral salt of the bone is calcium phosphate.
- 2- ( ) Osteoclasts are the mature bone cells.
- 3- ( ) Any bone in the human body is formed from compact and spongy bone..
- 4- ( ) Tropomyosin is a double strand prevents actin–myosin interaction
- 5- ( ) Tail of myosin binds to other myosin molecules.

**Question Two:** (2.5 marks)

**Write the scientific term against the following phrases:**

- 1- ( ) contraction without neural stimulation.
- 2- ( ) The ongoing replacement of old bone tissue by new bone tissue.
- 3- ( ) Long, slender, and spindle shaped muscular muscle has a single, central nucleus.
- 4- ( ) The broken ends of the bone protrude through the skin.
- 5- ( ) The normal tension and firmness of a muscle at rest.

**Question Three:** (2.5 marks)

**Select the correct answer from the following alternatives for each sentence:**

- 1- The layer of connective tissue that separates the muscle tissue into small sections is called the \_\_\_\_\_.  
a) Endomysium.  
b) Epiomysium.  
c) Perimysium.  
d) None of the above.
- 2- The segment of a myofibril that is called a sarcomere runs from \_\_\_\_\_.  
a) One z line to the next z line.  
b) One H zone to the next H zone.  
c) One A band to the next A band.  
d) One end of the muscle to opposite end.
- 3- The \_\_\_\_\_ are an invagination of the muscle cell's sarcolemma:  
a) Sarcoplasmic reticulum.  
b) Transverse tubules.  
c) Cisterna.  
d) Synaptic cleft.
- 4- Which description of muscle contraction means that all of the fibers within a muscle are fully contracted?  
a) All-or- none law.  
b) summation.  
c) Tetanic.  
d) Tone.

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- 5- Muscles that are not used, may degenerate or undergo a process of \_\_\_\_\_.  
a) Atrophy  
b) Hypertrophy  
c) Fatigue  
d) Tetany

**Question Four: (1.5 marks)**

**Justify and explain the following sentences:**

A) Calcium is necessary for muscle contraction .

Justification:-----  
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B) After puberty, the height of person will not increase.

Justification:-----  
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C) Mitochondria is more prevalent in cardiac muscular cells.

Justification:-----  
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**Question Five: (2mark)**

**Define the following scientific terms:**

1- Triad:-----  
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2- Motor unit:-----  
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3- Greenstick fracture:-----  
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4- Osteons:-----  
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