

Course No: PHRM 1206
 Course Title: Anatomy & Physiology 1
 Date: 19 /4/2017
 No. of Questions: (6)
 Time: 1hour
 Using Calculator (No)

University of Palestine

 Second Exam
 Second term 2016/2017
 Total Grade: (30/2)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 (T) against the right sentences and the sign (F) against the wrong sentences:

1. () The shaft of a long bone is called the diaphysis.
2. () The organic matrix of bone is secreted by chondroblasts.
3. () Dividing cartilage cells are situated in the marrow cavity of long bones.
4. () Bone remodelling is a function of the activity of osteoblasts and Osteoclasts.
5. () Most bones are formed by endochondral ossification of a hyaline cartilage model.
6. () Growth hormone secretion is stimulated by IGF-I.
7. () An excess of vitamin D causes rickets.
8. () Parathyroid hormone is required for normal osteoblastic activity.
9. () The sex steroids are chiefly responsible for closure of the epiphysis.
10. () The long bones develop from fibrous connective tissue.

Question Two: (1.5marks)

Match between the phrases of group (A) and terms of group (B):

Group A	Group B
1-Exerts some of its effects through IGFs	() Osteoclast
2-Responsible for the formation of long bones	() Endochondral ossification
3-Responsible for the formation of flat bones	() Growth Hormone
4-Responsible for the secretion of osteoid	() Calcitriol
5-Secretes enzymes that dissolve bone	() Intramembranous ossification
6-Stimulates calcium uptake by the gut	() Osteoblast

Question Three: (7marks)

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

- 1- The outer covering of each bone, made from fibrous connective tissue, is called the _____.
 A. Diaphysis
 B. Epiphysis
 C. Articular cartilage
 D. Periosteum
- 2- Inside the epiphyses of each long bone, mostly _____ can be found.
 A. compact bone
 B. spongy bone
 C. cartilage
 D. yellow marrow
- 3- Compact bone is made up of _____ cemented together.
 A. Osteocytes
 B. Perforating canals
 C. Osteons
 D. Trabeculae

Course No: PHRM 1206
Course Title: Anatomy & Physiology 1
Date: 19 /4/2017
No. of Questions: (6)
Time: 1hour
Using Calculator (No)

University of Palestine

Second Exam
Second term 2016/2017
Total Grade: (30/2)Marks

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

- 4- Which of these statements is not true about Intramembranous bones?
 - A. They begin with a cartilage model.
 - B. They form between flat sheets of connective tissue
 - C. Skull bones are formed in this way.
 - D. Osteoblasts deposit new bone along blood vessels within the layers..
- 5- Several layers of cells reside within epiphyseal disks of developing long bones. Which layer is responsible for anchoring the disk to the bony epiphysis?
 - A. cells undergoing mitosis
 - B. cells enlarging and becoming calcified
 - C. dead cells with calcified intercellular substance
 - D. resting cells
- 6- A soft spot in a newborn's skull is called a _____.
 - A. Fontanel
 - B. Fovea
 - C. Foramen
 - D. Fissure
- 7- The _____ suture joins the temporal and parietal bones of the skull.
 - A. Lambdoida
 - B. Squamosal
 - C. Coronal
 - D. Sagittal
- 8- The prominent portions of the cheeks are made up of the _____ bones.
 - A. Maxillary
 - B. Palatine
 - C. Lacrimal
 - D. Zygomatic
- 9- The _____ of a typical vertebra projects posteriorly, and is thickest and most blunt in appearance in lumbar vertebrae.
 - A. Spinous process
 - B. Transverse process
 - C. Superior articulating process
 - D. Lamina
- 10- Two kinds of bones form the pectoral girdle: the clavicle and the _____.
 - A. Humerus
 - B. Ulna
 - C. Scapula
 - D. Sternum
- 11- Another name for the wrist bones is _____.
 - A. Metacarpals
 - B. Carpals
 - C. Phalanges
 - D. Tarsals
- 12- The femur inserts into the coxal bone at the _____.
 - A. Patella
 - B. Trochanter
 - C. Condyle
 - D. Acetabulum

Course No: PHRM 1206
Course Title: Anatomy & Physiology 1
Date: 19 /4/2017
No. of Questions: (6)
Time: 1hour
Using Calculator (No)

University of Palestine

Second Exam
Second term 2016/2017
Total Grade: (30/2)Marks

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

- 13-Which bone would contain significant amounts of red bone marrow in an adult?
A. Femur
B. Sternum
C. Humerus
D. Tibia
- 14-By morphology, the parietal bone can be classified as a _____ bone.
A. Long
B. Short
C. Flat
D. Irregular
- 15-The medullary cavity in the diaphysis of an adult bone would contain _____.
A. Compact bone mainly
B. Spongy bone mainly
C. Red bone marrow
D. Yellow bone marrow
- 16-The part of the bone that the articular cartilage covers directly is the _____.
A. Diaphysis
B. Endosteum
C. Epiphysis
D. Periosteum
- 17-The junction between the diaphysis and epiphysis in a growing bone is called the _____.
A. Endosteum
B. Periosteum
C. epiphyseal disk
D. articular cartilage
- 18- Which type of fracture breaks the bone into several fragments?
A. Complete
B. Impacted
C. Comminuted
D. Spiral
- 19- What is the last stage in the repair of a fracture?
A. Bony callus
B. Hematoma
C. Inflammation
D. Fibrocartilage callus
- 20- Which of these skull bones does not contain paranasal sinuses?
A. Frontal
B. Ethmoid
C. Sphenoid
D. Zygomatic
- 21- Which bone contains the foramen magnum?
A. Parietal
B. Occipital
C. Sphenoid
D. Ethmoid

Course No: PHRM 1206
Course Title: Anatomy & Physiology 1
Date: 19 /4/2017
No. of Questions: (6)
Time: 1hour
Using Calculator (No)

University of Palestine

Second Exam
Second term 2016/2017
Total Grade: (30/2)Marks

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

- 22-Into what does the neuron release its neurotransmitter at the neuromuscular junction?
- A. motor end plate
 - B. cytoplasm of the muscle cell
 - C. cisternae
 - D. synaptic cleft
- 23-A motor unit is made up of _____.
- A. all the muscle fibers within a given muscle
 - B. a motor neuron and the muscle fibers it innervates
 - C. all the neurons going into an individual section of the body
 - D. a fascicle and a nerve
- 24-The crossbridges involved in muscle contraction are located on the _____.
- A. myosin myofilaments
 - B. actin myofilaments
 - C. Tropomyosin
 - D. Dystrophin
- 25-Which of these statements is correct regarding muscle contraction?
- A. All motor units act together.
 - B. Muscle contraction continues for long periods after nervous stimulation ceases.
 - C. The crossbridges bind to the actin and shorten the sarcomeres.
 - D. Dystrophin is not needed to strengthen the contracting muscle cell.
- 26-When a nervous impulse travels from a neuron to a muscle cell, what happens next?
- A. The impulse travels over the sarcolemma in all directions.
 - B. Calcium is released from the sarcoplasmic reticulum.
 - C. Linkages form between the actin and myosin.
 - D. Acetylcholine is decomposed by acetylcholinesterase.
- 27- One of the following statements about muscular responses is not true. Choose that one.
- A. A muscle fiber contracts in an all-or-none fashion.
 - B. There is a slight latent period that occurs between when the stimulus arrives at the muscle and when the muscle contracts.
 - C. Muscles will add motor units to a contraction, increasing the overall force of contraction.
 - D. When a person is fully at rest, none of her muscles are contracting.
- 28-Which term is the smallest subdivision in this group?
- A. Fiber
 - B. Fibril
 - C. Filament
 - D. Actin

Question Four:

(3marks)

Justify and explain the following sentences:

- A) The skin of old age person is dry, thin and wrinkling .

Justification:-----

Course No: PHRM 1206
Course Title: Anatomy & Physiology 1
Date: 19 /4/2017
No. of Questions: (6)
Time: 1hour
Using Calculator (No)

University of Palestine

Second Exam
Second term 2016/2017
Total Grade: (30/2)Marks

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

B) The most complication of massive burning of human body is the shock.

Justification:-----

C) The bone has an important role in calcium homeostasis.

Justification:-----

Question Five: (4mark)

Define the following scientific terms:

1- Triad:-----

2- Ossification:-----

3- Eponychium:-----

4- Sarcomere:-----

Question Six: (12marks)

Write in detail in the following:

1- Functions of skin in detail:

Course No: PHRM 1206
Course Title: Anatomy & Physiology 1
Date: 19 /4/2017
No. of Questions: (6)
Time: 1hour
Using Calculator (No)

University of Palestine

Second Exam
Second term 2016/2017
Total Grade: (30/2)Marks

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

2- Thin and Tick filament proteins of skeletal muscle structure and its role in muscular contraction according to Sliding Filament Theory:

End of Question
Good Luck