7.1 Matching Questions

Using Figure 7.1, match the following:

1. A) A
2. B) D
3. C) B
4. D) C
5. E) E

1) Articulates with hip bones of the pelvis.

Section: 7.2

Learning Outcome: 7.4

Global LO: G7

HAPS LO: HAPS1

Bloom’s Level: 2 Comprehension
2) Attach to ribs.
Section: 7.2 Learning
Outcome: 7.4 Global
LO: G7
HAPS LO: HAPS1

3) Bares most of the
weight. Section: 7.2
Learning Outcome: 7.4
Global LO: G7
HAPS LO: HAPS1
Bloom’s Level: 2 Comprehension

4) Transvers foramina allow the passage of vertebral arteries.
Section: 7.2
Learning Outcome: 7.4
Global LO: G7
HAPS LO: HAPS1
Bloom’s Level: 2 Comprehension

5) No canals or foramen
present. Section: 7.2
Learning Outcome: 7.4
6) Includes the atlas and the axis.
Section: 7.2
Learning Outcome: 7.4
Global LO: G7
HAPS LO: HAPS1
Bloom’s Level: 2 Comprehension

7) Contains a pivot joint that allows you to rotate your head
“no.” Section: 7.2
Learning Outcome: 7.4
Global LO: G7
HAPS LO: HAPS1
Bloom’s Level: 2 Comprehension


**Figure 7.2**

*Using Figure 7.2, match the following:*
1. A) B
2. B) E
3. C) D
4. D) A
5. E) C

8) Anchor the pterygoid muscles. Section: 7.1
Learning Outcome: 7.1
Global LO: G7
HAPS LO: HAPS1
Bloom’s Level: 2 Comprehension

9) Passageway for optic nerve.
Section: 7.1
Learning Outcome: 7.1
Global LO: G7
HAPS LO: HAPS1
Bloom’s Level: 2 Comprehension

10) Encloses pituitary gland. Section: 7.1
Learning Outcome: 7.1
Global LO: G7
HAPS LO: HAPS1
Bloom’s Level: 2 Comprehension

11) Forms parts of the middle cranial fossa, dorsal walls of the orbits, and external walls of the skull.

Section: 7.1
Learning Outcome: 7.1
Global LO: G7
HAPS LO: HAPS1
Bloom’s Level: 2 Comprehension

12) Allow cranial nerves that control eye movements to enter the orbit.

Section: 7.1
Learning Outcome: 7.1
Global LO: G7
HAPS LO: HAPS1
Bloom’s Level: 2 Comprehension


Match the following:

1. A) Maxillae
2. B) Temporal bones
3. C) Sphenoid
4. D) Lacrimal bones

13) These very small bones are at the medial wall of each orbit.
14) Failure of these anterior bones to fuse causes a condition known as cleft palate. Section: 7.2
Learning Outcome: 7.4
Global LO: G7
HAPS LO: HAPS1
Bloom’s Level: 2 Comprehension

15) This bone houses the apparatus of the internal and middle ear. Section: 7.2
Learning Outcome: 7.4
Global LO: G7
HAPS LO: HAPS1

16) This bone is wing-shaped and extends behind the eyes and forms part of the floor of the cranial vault. Section: 7.2
Learning Outcome: 7.4
Global LO: G7
17) The bones that contain teeth. Section: 7.2
Learning Outcome: 7.4
Global LO: G7
HAPS LO: HAPS1
Bloom’s Level: 2 Comprehension

18) This bone has a passageway into the nasal cavity.
Section: 7.2
Learning Outcome: 7.4
Global LO: G7
HAPS LO: HAPS1
Bloom’s Level: 2 Comprehension

19) The sella turcica is a portion of this bone. Section: 7.2
Learning Outcome: 7.4
Global LO: G7
HAPS LO: HAPS1
Bloom’s Level: 2 Comprehension

*Match the following:*

A)Humerus

B)Radius

1. C) Phalanges

20) The fingers have three of these bones and the thumb has only two. Section: 7.5

Learning Outcome: 7.11

Global LO: G7

HAPS LO: HAPS1

Bloom’s Level: 2 Comprehension

21) This bone articulates with the glenoid fossa.

Section: 7.5

Learning Outcome: 7.11

Global LO: G7

HAPS LO: HAPS1

Bloom’s Level: 2 Comprehension

22) Forearm bone that articulates with most of the carpals.

Section: 7.5
Learning Outcome: 7.11
Global LO: G7
HAPS LO: HAPS1
Bloom’s Level: 2 Comprehension

Answers: 20) C 21) A 22) B

Match the following:
A) Lumbar vertebrae
B) Axis
   1. C) Atlas
   2. D) Coccyx
   3. E) Thoracic vertebrae

23) These bones have the thickest body (centrum) with short blunt spinous processes. Section: 7.2

Learning Outcome: 7.4
Global LO: G7
HAPS LO: HAPS1
Bloom’s Level: 2 Comprehension

24) The fused rudimentary tailbone. Section: 7.2

Learning Outcome: 7.4
Global LO: G7
25) The bone that articulates with the occipital condyles.
Section: 7.2
Learning Outcome:  7.4
Global LO:  G7
HAPS LO: HAPS1
Bloom’s Level: 2 Comprehension

26) These bones have articular facets for the ribs.
Section: 7.2
Learning Outcome:  7.4
Global LO:  G7
HAPS LO: HAPS1
Bloom’s Level: 2 Comprehension

27) Allows the head to nod “yes.”
Section: 7.2
Learning Outcome:  7.4
Global LO:  G7
HAPS LO: HAPS1
Bloom’s Level: 2 Comprehension
28) Allows the head to shake “no.”

Section: 7.2
Learning Outcome: 7.4
Global LO: G7
HAPS LO: HAPS1
Bloom’s Level: 2 Comprehension


Match the following:

1. A) Connects temporal and parietal bones.
2. B) Connects right and left parietal bones.
3. C) Connects occipital and parietal bones.
5. E) Connects occipital and temporal bones.

29) Lambdoid suture.

Section: 7.1
Learning Outcome: 7.1
Global LO: G7
HAPS LO: HAPS1
Bloom’s Level: 2 Comprehension

30) Sagittal suture.
31) Squamosal suture.

32) Coronal suture.

33) Occipitomastoid suture.
7.2 True/False Questions

1) The fibula is the major weight-bearing bone of the leg.
Answer: FALSE
Section: 7.7
Learning Outcome: 7.14
Global LO: G7
HAPS LO: HAPS1

2) All of the bones of the skull, except the mandible, are united by sutures and are therefore *immovable*.
Answer: TRUE
Section: 7.1
Learning Outcome: 7.1
Global LO: G2, G7
HAPS LO: HAPS1, HAPS2
Bloom’s Level: 3 Application
3) The frontal bone articulates with the parietal bone by means of the sagittal suture. Answer: FALSE

Section: 7.1
Learning Outcome: 7.1
Global LO: G7
HAPS LO: HAPS1
Bloom’s Level: 2 Comprehension

4) The mastoid sinuses are located at a position in the skull where they are usually free from infections.
Answer: FALSE

Section: 7.1
Learning Outcome: 7.1
Global LO: G7
HAPS LO: HAPS1
Bloom’s Level: 2 Comprehension

5) The vertebral column is held in place primarily by the anterior and posterior longitudinal ligaments.
Answer: TRUE

Section: 7.2
Learning Outcome: 7.4
Global LO: G7
HAPS LO: HAPS1
Bloom’s Level: 2 Comprehension
6) Most of the body’s weight is carried by the talus and calcaneus.

Answer: TRUE

Section: 7.7

Learning Outcome: 7.14

Global LO: G7

HAPS LO: HAPS1

Bloom’s Level: 2 Comprehension

7) The most common site of fracture in the humerus is the anatomical neck. Answer: FALSE

Section: 7.5

Learning Outcome: 7.11

Global LO: G7

HAPS LO: HAPS1

8) The shallow socket of the shoulder joint restricts the movement of the humerus but does increase the stability of the joint.

Answer: FALSE

Section: 7.4

Learning Outcome: 7.9

Global LO: G7

HAPS LO: HAPS1
9) Costal cartilages join most ribs to the sternum.
Answer: TRUE
Section: 7.3
Learning Outcome: 7.7
Global LO: G7
HAPS LO: HAPS1

Bloom’s Level: 2 Comprehension

10) The tubercle of a rib articulates with the transverse process of a vertebra. Answer: TRUE
Section: 7.3
Learning Outcome: 7.7
Global LO: G7
HAPS LO: HAPS1

Bloom’s Level: 2 Comprehension

11) In women of childbearing age, the dimensions of the true pelvis are of utmost importance.
Answer: TRUE
Section: 7.6
Learning Outcome: 7.13
12) The term *vertebrochondral ribs* refers to the “false ribs,” that attach to each other before they attach to the sternum.

Answer: TRUE

Section: 7.3
Learning Outcome: 7.8

13) In the anatomical position, the lateral forearm bone is the radius. Answer: TRUE

Section: 7.5
Learning Outcome: 7.11

14) The vomer along with the perpendicular plate of the ethmoid bone forms the bony part of the nasal septum.

Answer: TRUE

Section: 7.1
Learning Outcome: 7.1
15) The temporal bone connects to the zygomatic bone via the temporal process of the temporal bone.

Answer: FALSE

Section: 7.1
Learning Outcome: 7.2
Global LO: G7
HAPS LO: HAPS1
Bloom’s Level: 2 Comprehension

16) The lacrimal bone contains a groove that forms part of lacrimal fossa. Along with the soft tissue of the lacrimal sac, these structures drain tears from the eye into the nasal passage.

Answer: TRUE

Section: 7.2
Learning Outcome: 7.4
Global LO: G7
HAPS LO: HAPS1
Bloom’s Level: 2 Comprehension

17) The largest and strongest bone of the face is the maxilla.
Answer: FALSE

Section: 7.1
Learning Outcome: 7.2
Global LO: G7
HAPS LO: HAPS1
Bloom’s Level: 1 Knowledge

18) There are seven cervical, twelve thoracic, and five lumbar vertebrae. Answer: TRUE

Section: 7.2
Learning Outcome: 7.6
Global LO: G7
HAPS LO: HAPS1
Bloom’s Level: 1 Knowledge

19) Lordosis affects the thoracic vertebrae.
Answer: FALSE

Section: 7.2
Learning Outcome: 7.4
Global LO: G7
HAPS LO: HAPS1

20) All vertebrae possess a body, a spine, and transverse foramina.
Answer: FALSE
21) The dens articulates with the occipital bone.
   Answer: FALSE

22) The pituitary gland is housed in a saddle-like depression in the temporal bone called the sella turcica.
   Answer: FALSE
23) The ischium articulates with both the ilium and the pubis. Answer: TRUE

Section: 7.6
Learning Outcome: 7.12
Global LO: G7
HAPS LO: HAPS1
Bloom’s Level: 2 Comprehension

1.3 Multiple Choice Questions

1) The bones in the skull have many different names but what are the boundaries of each bone? Where do they start and stop?

   1. A) Bones of the skull are separated by immobile joints called sutures.
   2. B) Bones of the skull are continuous but named for their specific markings.
   3. C) The boundaries are indistinct and are simply vague generalized regions.
   4. D) Boundaries for skull bones are seen only in the infant skull.

Answer: A

Section: 7.1
Learning Outcome: 7.1
Global LO: G2, G7
HAPS LO: HAPS1, HAPS2
Bloom’s Level: 3 Application

2) Which of the following can be considered a function of the paranasal sinuses?

   1. A) The paranasal sinuses are passageways for nerves to pass through.
2. B) Sinuses have rough patches that aid in muscle attachment.
3. C) Sinuses are often referred to as vestigial, anatomical features with no known function.
4. D) Sinuses take away a minimal amount of strength from bones while reducing the weight of bones.

Answer: D

Section: 7.1
Learning Outcome: 7.3
Global LO: G2, G7
HAPS LO: HAPS1, HAPS2
Bloom’s Level: 3 Application

3) Which of the bones of the skull would you most associate with hearing and balance?

1. A) the occipital bone
2. B) the zygomatic bone
3. C) the temporal bone
4. D) the parietal bone

Answer: C

Section: 7.1
Learning Outcome: 7.1
Global LO: G2, G7
HAPS LO: HAPS1
Bloom’s Level: 3 Application

4) Which of the following would be most associated with housing the special sense organs?

1. A) the cranial bones
2. B) hyoid bone
3. C) the facial bones
4. D) the bones of the inner ear

Answer: C

Section: 7.1
Learning Outcome: 7.2
Global LO: G2, G7
HAPS LO: HAPS1
Bloom’s Level: 3 Application

5) Which of the following would be most associated with process of warming and humidifying inhaled air?

1. A) the paranasal sinuses
2. B) the bones comprising the orbits
3. C) the cranial bones
4. D) hyoid bone

Answer: A

Section: 7.1
Learning Outcome: 7.3
Global LO: G2, G7
HAPS LO: HAPS1
Bloom’s Level: 3 Application

6) Which is the best description for the function of the cranial bones?

1. A) allowing introduction of food into the digestive system
2. B) house the special sense organs
3. C) protection of the brain
4. D) providing passageways for respiratory gases to move into and out of the body
7) The sphenoid bone is sometimes referred to as a “key stone” of the skull. This is due to the fact that ________.

1. A) the sphenoid is wedged in the superior most portion of the skull and supports all of the other bones below (excluding the mandible)
2. B) the intricate shape of the sphenoid makes it critical to the district characteristics of the individual human face
3. C) the sphenoid is in the center of the skull and it articulates (joins) with all of the other bones of the skull (excluding the mandible)
4. D) the sphenoid bone is solid like a stone and provides the strength necessary to support the skull

Answer: C

8) The sella turcica is part of the ________ bone and houses the ________ gland.

1. A) ethmoid; thymus
2. B) sphenoid; pituitary
3. C) ethmoid; pituitary
4. D) sphenoid; thymuss
9) The hypothalamus is a region of the brain controlling many aspects of the endocrine system. It works closely with the pituitary gland. The hypothalamus is directly superior to the pituitary and is therefore ________.

1. A) the only region of the brain that is outside of the skull  
2. B) superior to the crista galli  
3. C) inferior to the cribriform plate  
4. D) superior to the sella turcica

Answer: D

Section: 7.1
Learning Outcome:  7.2
Global LO:  G2, G7
HAPS LO: HAPS1, HAPS2
Bloom’s Level:  3 Application

10) During concussion (a type of traumatic brain injury) the brain will move within the cranial cavity. Damage is caused to the brain as it crashes into parts of the bony cavity walls. Ironically one of the bone markings that can cause serious damage to the brain is the _________. This is ironic because one of the functions of this bone marking is to _________.

1. A) perpendicular plate; separate the left and right halves of the nasal cavity  
2. B) pterygoid processes; anchor important chewing muscles  
3. C) styloid process; attach to and support the hyoid bone
4. D) crista galli; attach to the dura matter holding the brain in place

Answer: D

Section: 7.1

Learning Outcome: 7.2

Global LO: G2, G7

HAPS LO: HAPS1, HAPS2, HAPS7

Bloom’s Level: 6 Evaluation

11) Curvatures of the spine serve the body by _______.

1. A) applying greater pressure to the intervertebral disks preventing them from slipping
2. B) providing space for soft organs in the various body cavities
3. C) giving additional springiness and flexibility to the spine which absorbs shock
4. D) limiting the flexibility of the spine and preventing hyperextension

Answer: C

Section: 7.2

Learning Outcome: 7.4

Global LO: G2, G7

HAPS LO: HAPS1, HAPS2, HAPS7

Bloom’s Level: 3 Application

12) When looking at the range of motion of the various sections of the vertebral column the ______ has the most flexibility

1. A) lumbar spine
2. B) thoracic spine
3. C) cervical spine
4. D) sacral spine
Answer: C

Section: 7.2

Learning Outcome: 7.6

Global LO: G2, G7

HAPS LO: HAPS1, HAPS2, HAPS7

Bloom’s Level: 4 Analysis

13) The range of motion as well as the direction of motion for the various regions of the spine differs. For example the lumbar spine is capable of flexion and extension but little rotational movement. While the thoracic spine rotates with little flexion or extension. This is due to variation in ________.

1. A) the orientation of the superior and inferior articular facets
2. B) the composition of the intervertebral disks
3. C) the arrangement of muscular attachment to the spinous processes
4. D) the thickness of the intervertebral disc

Answer: A

Section: 7.2

Learning Outcome: 7.6

Global LO: G2, G7

HAPS LO: HAPS1, HAPS2, HAPS7

Bloom’s Level: 4 Analysis

14) The anatomy of the thoracic cage provides ridged support and protection but at the same time is also flexible and mobile. Of the list below, which feature does not aid in the flexibility and movement of the thoracic cage?

1. A) the jugular notch
2. B) the costal spaces occupied by costal muscle
3. C) the sternal angle
4. D) the costal cartilages
15) The gleno-humeral joint that articulates the humerus to the pectoral girdle is a highly mobile joint. This mobility comes at a cost because ________.

1. A) these type of joints are harder to control and coordinate
2. B) muscles that span this mobile joint will only provide a reduced amount of power
3. C) the joint is relatively unstable and can easily dislocate
4. D) the blood vessels that lead to the arm and hand can easily be cut off by the free range of motion

Answer: C

16) Of the list below select the one that gives the least explanation for the relatively high mobility of the arms.

1. A) The relatively open glenoid cavity of the gleno-humeral joint.
2. B) The scapula does not articulate to the axial skeleton directly.
3. C) The subscapular notch is a passage way for nerves.
4. D) The clavicle articulates to the axial skeleton at only the sternal end.
17) The proximal end of the ulna illustrates the relationship of form and function. The rounded trochlear notch articulates with the hourglass shape of the trochlea. This forms a joint that allows for ________.

1. A) the curling of the fingers
2. B) the hyper extension of the forearm
3. C) the rotational motion of the forearm
4. D) the hinge like motion of the forearm

Answer: D

18) The proximal end of the radius illustrates the relationship of form and function. The cup-like surface of the radial head articulates with the rounded shape of the capitulum. This forms a joint that allows for ________.

1. A) the rotational motion of the forearm
2. B) the curling of the fingers
3. C) the hinge like motion of the forearm
4. D) the hyper extension of the forearm
19) The axial skeleton includes ________.

   1. A) the skull, the scapula and the vertebral column
   2. B) the skull, vertebral column, and rib cage
   3. C) arms, legs, hands, and feet
   4. D) the skull, vertebral column, and pelvis

Answer: B

20) Which vertebra does not have a body?

   1. A) atlas
   2. B) last lumbar
   3. C) last cervical
   4. D) axis

Answer: A
Learning Outcome: 7.6
Global LO: G7
HAPS LO: HAPS1
Bloom’s Level: 1 Knowledge

21) The suture that connects the two parietal bones together is the ________.

1. A) coronal
2. B) squamous
3. C) lambdoid
4. D) sagittal

Answer: D

Section: 7.1
Learning Outcome: 7.1
Global LO: G7
HAPS LO: HAPS1
Bloom’s Level: 1 Knowledge

22) The hyoid bone is unique because it ________.

1. A) is composed of three bones joined together
2. B) is the only bone of the body that does not articulate with any other bone
3. C) is the only irregular bone found in the neck
4. D) is the only bone formed by the fusion of right and left halves

Answer: B

Section: 7.1
Learning Outcome: 7.1
Global LO: G7
23) Along with support, the anterior longitudinal ligament of the vertebral column also acts to _______.

1. A) protect the spinal cord
2. B) hold the discs in place
3. C) prevent hyperextension of the spine
4. D) hold the spine erect

Answer: C

24) What are the major functions of the intervertebral discs?

1. A) to hold together the vertebra and support the body
2. B) to remove curvatures of the spine and provide springiness to the spinal column
3. C) to absorb shock and provide flexibility to the spine
4. D) to prevent hyperextension and allow rotation of the spine

Answer: C
25) Paranasal sinuses are found in which of these facial bones?

1. A) zygomatic bones
2. B) vomer
3. C) nasal conchae
4. D) maxillae

Answer: D

Section: 7.1

Learning Outcome: 7.3

Global LO: G7

HAPS LO: HAPS1

Bloom’s Level: 1 Knowledge

26) Which of the following is an abnormal lateral curvature of the vertebral column often seen in the thoracic region?

1. A) kyphosis
2. B) scoliosis
3. C) swayback
4. D) lordosis

Answer: B

Section: 7.2

Learning Outcome: 7.4

Global LO: G7

HAPS LO: HAPS1

Bloom’s Level: 2 Comprehension
27) Which part of the vertebral column receives the most stress by bearing most of the weight of the body?

1. A) the cervical region
2. B) the lumbar region
3. C) the sacrum
4. D) the sacral promontory

Answer: B

Section: 7.2
Learning Outcome: 7.6
Global LO: G7
HAPS LO: HAPS1
Bloom’s Level: 2 Comprehension

28) Which bone acts as a moveable base for the tongue?

1. A) zygomatic bone
2. B) palatine
3. C) hyoid bone
4. D) mandible

Answer: C

Section: 7.1
Learning Outcome: 7.1
Global LO: G7
HAPS LO: HAPS1
Bloom’s Level: 1 Knowledge

29) Thoracic vertebrae differ from the other vertebrae in that they have ________.

1. A) no transverse processes
2. B) transverse foramina
3. C) costal facets
4. D) no intervertebral discs

Answer: C

Section: 7.2
Learning Outcome: 7.5
Global LO: G7
HAPS LO: HAPS1
Bloom’s Level: 1 Knowledge

30) What is the major function of the axial skeleton?

1. A) provide central support for the body and protect internal organs
2. B) provide a space for the major digestive organs
3. C) provide an attachment point for muscles that allow movement
4. D) give the body resilience

Answer: A

Section: 7.1
Learning Outcome: 7.1
Global LO: G7
HAPS LO: HAPS1
Bloom’s Level: 2 Comprehension

31) The antebrachium is composed of which of the following two bones?

1. A) the radius and the ulna
2. B) the scapula and the clavicle
3. C) the humerus and the radius
4. D) the humerus and the clavicle
32) The “true wrist” or carpus consists of ________.

   1. A) the phalanges
   2. B) the metacarpals
   3. C) a group of eight short bones united by ligaments
   4. D) the styloid processes of the radius and ulna

Answer: C

33) Which bone is in direct contact with the first metatarsal?

   1. A) lateral cuneiform
   2. B) calcaneus
   3. C) cuboid
   4. D) medial cuneiform

Answer: D
34) Which bone forms the prominence of the cheek?

1. A) sphenoid bone
2. B) temporal bone
3. C) palatine bone
4. D) zygomatic bone

Answer: D

Section: 7.1

Learning Outcome: 7.2

35) The superior orbital fissure is formed in the sphenoid bone, whereas the inferior orbital fissure is formed between the sphenoid and ________.

1. A) maxilla
2. B) lacrimal
3. C) palatine
4. D) ethmoid

Answer: A
36) Which of the following is the abnormal curve often seen in pregnant women as they attempt to preserve their center of gravity toward the end of the pregnancy?

1. A) scoliosis  
2. B) kyphosis  
3. C) hunchback  
4. D) lordosis  

Answer: D

Section: 7.2
Learning Outcome: 7.4
Global LO: G7
HAPS LO: HAPS1

Bloom’s Level: 2 Comprehension

37) How are thoracic vertebrae 11 and 12 different from the other vertebrae?

12. A) There are two foramina on vertebrae 11 and 12.  
13. B) The transverse processes do not have facets that articulate with the tubercles of the ribs.  
14. C) The orientation of the articular processes is different from all the other thoracic vertebrae.  
15. D) The spinous processes are directed parallel with the centrum.

Answer: B

Section: 7.2
Learning Outcome: 7.6
Global LO: G7
HAPS LO: HAPS1
Bloom’s Level: 1 Knowledge

38) The superior nasal concha is a part of which bone?

   1. A) ethmoid
   2. B) maxilla
   3. C) vomer
   4. D) sphenoid

   Answer: A

Section: 7.1
Learning Outcome: 7.2
Global LO: G7
HAPS LO: HAPS1
Bloom’s Level: 1 Knowledge

39) The pelvic girdle does not include the ________.

   1. A) femur
   2. B) ilium
   3. C) pubis
   4. D) ischium

   Answer: A

Section: 7.2
Learning Outcome: 7.4
Global LO: G7
HAPS LO: HAPS1
Bloom’s Level: 1 Knowledge
40) Which of the following bones is not weight bearing?

1. A) femur
2. B) fibula
3. C) tibia
4. D) talus

Answer: B

Section: 7.7
Learning Outcome: 7.14
Global LO: G7
HAPS LO: HAPS1
Bloom’s Level: 1 Knowledge

41) Which portion of the fibula articulates with the talus?

1. A) calcaneus
2. B) medial malleolus
3. C) head
4. D) lateral malleolus

Answer: D

Section: 7.7
Learning Outcome: 7.14
Global LO: G7
HAPS LO: HAPS1
Bloom’s Level: 2 Comprehension

42) Which part of the ethmoid bone forms the superior part of the nasal septum?

1. A) perpendicular plate
2. B) orbital plate
3. C) cribriform plate  
4. D) crista galli

Answer: A

Section: 7.1
Learning Outcome: 7.1
Global LO: G7
HAPS LO: HAPS1
Bloom’s Level: 1 Knowledge

43) Which of the following is not a movement that can occur between vertebrae?

1. A) supination  
2. B) rotation  
3. C) flexion and extension  
4. D) lateral flexion

Answer: A

Section: 7.2
Learning Outcome: 7.2
Global LO: G7
HAPS LO: HAPS1
Bloom’s Level: 2 Comprehension

1.4 Short Answer Questions

1) The heel bone is called the __________. Answer: calcaneus
2) The lateral condyle of the femur articulates with the lateral condyle of the ________.
Answer: tibia

3) The medial condyle of the femur articulates with the medial condyle of the ________.
Answer: tibia

4) The largest foramen in the body is the ________ foramen. Answer: obturator
Section: 7.6
Learning Outcome:  7.12
Global LO:  G7
HAPS LO: HAPS1
Bloom’s Level: 1 Knowledge

5) The smallest short bone in the hand is the ________. Answer: pisiform

Section: 7.5
Learning Outcome:  7.11
Global LO:  G7
HAPS LO: HAPS1
Bloom’s Level: 1 Knowledge

6) The styloid process of the ________ points to the thumb.
Answer: radius

Section: 7.5
Learning Outcome:  7.11
Global LO:  G7
HAPS LO: HAPS1
Bloom’s Level: 2 Comprehension

7) Only the ________ vertebrae have transverse foramina. Answer: cervical
8) The ________ is the bone confined to the septum of the
nose. Answer: vomer

9) Your “cheekbone” is mostly formed from the ________ bone.
Answer: zygomatic

10) What structure is the “missing” body of the second cervical
vertebrae? Answer: dens
11) What is the function of the lumbar curvature?
Answer: It positions the weight of the trunk over the body’s center of gravity, thus providing optimal balance when standing.

12) What is the purpose of the vertebral curvatures?
Answer: Their purpose is to increase the resilience and flexibility of the spine, allowing it to function like a spring rather than a rigid rod.

13) Why is the area just distal to the tubercles of the humerus called the surgical neck?
Answer: This area is called the surgical neck because it is the most frequently fractured part of the humerus.

Section: 7.5
Learning Outcome: 7.11
Global LO: G2, G7
HAPS LO: HAPS1, HAPS2
Bloom’s Level: 3 Application

14) Describe the composition of the intervertebral discs.

Answer: Intervertebral discs are composed of an inner semifluid nucleus pulposus, which gives the discs elasticity and compressibility, and a covering of fibrocartilage, the annulus fibrosus, which limits expansion and holds successive vertebrae together.

Section: 7.2
Learning Outcome: 7.5
Global LO: G7
HAPS LO: HAPS1
Bloom’s Level: 2 Comprehension

15) Describe the differences between the bones of the lower and upper limb and briefly state why these differences exist.

Answer: The lower limbs carry the weight of the body and are subjected to exceptional forces. These bones are thicker and stronger. The upper limb bones are adapted for flexibility and mobility and are therefore smaller and lighter.

Section: 7.7
Learning Outcome: 7.14
Global LO: G2, G7
HAPS LO: HAPS1, HAPS2
16) How are the pectoral and pelvic girdles structurally different? How is this difference reflected in their functions?

Answer: The pectoral girdle moves freely across the thorax and allows the upper limb a high degree of mobility, while the pelvic girdle is secured to the axial skeleton to provide strength and support. This is why the glenoid cavity of the scapula is relatively shallow and the acetabulum of the pelvis is a deep socket.

Section: 7.7

Learning Outcome: 7.14

Global LO: G2, G7

HAPS LO: HAPS1, HAPS2

Bloom’s Level: 4 Analysis

17) How do the first two cervical vertebrae differ from other cervical vertebrae? What are their functions?

Answer: The atlas or C1 vertebra has no body. It articulates with the skull with large curved articular surfaces to allow the skull to rock in a “yes” motion. The axis or C2 vertebra has a projection called the dens that allows the axis to pivot, giving the head the “no” motion. The vertebral foramen of the atlas is enlarged so that when the head is pivoted in the “no” motion, the spinal cord can move.

Section: 7.2

Learning Outcome: 7.5

Global LO: G2, G7

HAPS LO: HAPS1, HAPS2

Bloom’s Level: 4 Analysis

18) Identify the arches of the foot and describe how they are maintained.
Answer: There are three arches: the medial and lateral longitudinal arches, and the transverse arch. Together they form a half-cone that distributes the weight of the body. They are maintained by the shape of the foot bones, strong ligaments, and by the pull of some tendons.

Section: 7.7

Learning Outcome: 7.14

Global LO: G2, G7

HAPS LO: HAPS1, HAPS2

Bloom’s Level: 4 Analysis

19) Identify the four major cranial sutures in any order and the bones they connect. Answer: 1. Coronal – parietal and frontal

- 2. Sagittal – between the parietal bones
- 3. Squamous – parietal and temporal
- 4. Lambdoidal – parietal and occipital

Section: 7.1

Learning Outcome: 7.1

Global LO: G7

HAPS LO: HAPS1

Bloom’s Level: 1 Knowledge

20) If the hyoid bone is not attached to another bone why is it so important?

Answer: The hyoid acts as an attachment point for muscles in the neck region to connect the muscles in the lower jaw region. It allows for the muscles to make a right angle at the junction of the lower jaw and throat. The hyoid serves as a movable base for the tongue and its horns are attachment points for neck muscles that raise and lower the larynx during speech and swallowing.

Section: 7.1
21) What is the purpose of the articular processes of the vertebrae?

Answer: These processes (superior and inferior) allow the vertebral column to flex forward some, but lock the vertebrae if the column is flexed back and limit rotation to avoid injury to the spinal cord and its nerve roots. In a four-legged animal, such as a horse, these processes allow the back to remain in place while you ride it.

Section: 7.2

1.5 Clinical Questions

1) A skeleton was found in a wooded area. It was brought to a forensic medicine laboratory for identification. The first thing the coroner did was determine the age, sex, and possible size of the person. What was examined in order to get this information?

Answer: By examining the shape of the pelvic inlet, the depth of the iliac fossa, the characteristics of the ilium, and the angle inferior to the pubic symphysis, one could determine the sex. Also significant for determining the sex of the skeleton are the position of the acetabulum, the shape of the obturator foramen, and the general design of the ischium. To determine the age of the individual, bone density, the status of growth plates, and markings are important. The markings where muscles were attached will reveal information about the mass and the general shape of the person.
2) Jason is a 14-year-old who recently had his nose pierced through the nasal septum. He tells his mother that the area is very tender and warm to the touch. The area is also red. The mother calls the pediatrician’s office and the nurse recommends that the mother bring Jason in for evaluation. The nurse explains to the mother that a local infection can spread and cause serious harm. Where do you think the infection could spread and why?

Answer: Infection of nasal piercings can spread to the brain and cause serious complications. Infections in the brain may occur because of the direct extension from ear, tooth, mastoid, or sinus infections.

3) You are a school nurse in a middle school. You are responsible for screening the children for scoliosis. What is involved in this screening?

Answer: Scoliosis literally means “twisted disease” and is an abnormal rotational curvature causing lateral deviation that occurs most often in the thoracic region. It is quite common during late childhood. The nurse would need to observe the child standing erect, disrobed from the waist up. An older girl may leave her bra on. The child is observed from behind and the nurse would note any asymmetry of the shoulders and hips. With the child bending forward so that the back is parallel to the floor, the nurse may observe from behind, noting tilting of the rib cage.
4) When administering chest compression to someone whose heart has stopped beating, the heel of the hand should be placed on the sternum on a line drawn between the nipples. Why would it be a problem if the hand was placed at a lower part of the sternum?

Answer: The compressions could break the xiphoid process of the sternum and drive it into the heart, diaphragm, or liver resulting in possibly deadly complications.

Section: 7.3

Learning Outcome: 7.4

Global LO: G2, G7

HAPS LO: HAPS1, HAPS2

Bloom’s Level: 4 Analysis

5) Sam is an accountant who is especially busy during tax season. By the end of each day he complains of shoulder stiffness and tightness as well as some upper back pain. What might be Sam’s problem and how could he prevent the discomfort?

Answer: Sam is probably sitting hunched over his desk rather than sitting up properly. This can result in kyphosis and resulting upper back pain and stiffness. Sam needs to practice good posture and/or invest in an ergonomic chair to help him maintain the proper thoracic vertebral curve.

Section: 7.2

Learning Outcome: 7.4

Global LO: G2, G7

HAPS LO: HAPS1, HAPS2

Bloom’s Level: 4 Analysis