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Program B.S Radiology

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ID 14095

Papax Cross sectional Anatomy

Final Term Exam

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Time duration 6 hours

①

Q4:- write the differences b/w male and female Pelvis?

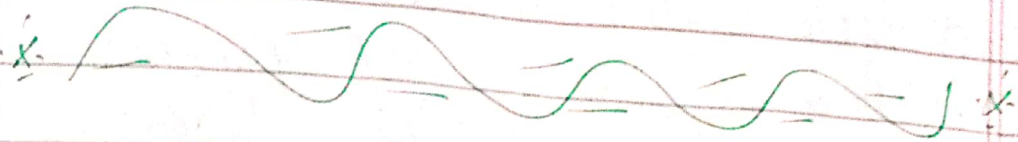
Ans:-

<u>Male Pelvis</u>	<u>Female Pelvis</u>
① Thicker & Heavier.	→ Light & Thinner.
② Heart-Shape	→ Round or oval shape.
③ less than 70 degrees.	→ Greater than 80 degrees.
④ Smaller	→ Rounded & Larger.
⑤ Tall & Narrow	→ Short & Broad
⑥ Projected Inwards & Immovable	→ It is flexible & Straighter.
⑦ Deep	→ Shallow.
⑧ comparatively small.	→ comparatively large.
⑨ subpubic angle large	→ subpubic angle more acute.
⑩ coccyx more flexible, straighter.	→ coccyx less flexible, more curved.
⑪ Pelvic cavity is wide & shallow.	→ pelvic cavity is narrow & deep.
⑫ False pelvis is shallow	→ False pelvis is deep.
⑬ Lesser lateral flairs.	→ Greater lateral flairs.
⑭ More vertical	→ More horizontal C.P.T. 4

(2)

- (15) → Acetabulum is large. → Acetabulum is smaller.
- (16) Has a longer and narrower Sacrum. → Has Sacrum that is wider, shorter and less curved.
- (17) Thicker bone → denser bones.
- (18) Has a v-shaped Pubic arch. → Has a pubic arch that is wider.
- (19) Tuberosity longer. → Tuberosity shorter.
- (20) Sciatic notch is narrower. → sciatic notch is wider.
- (21) The obturator foramen is round. → The obturator foramen is oval.
- (22) Has a v-shaped Pubic arch. → Has a pubic arch that is wider.
- (23) Stronger muscle structure. → Childbearing and easier delivery.
- (24) Pelvic outlet in male Pelvis is narrower. → Pelvis outlet in female Pelvis is wider.
- (25) The Pelvis is narrower, higher & more compact than that of their female counter part. → It is designed for bipedal movement rather than pregnancy and childbirth.

(3)



Q3:- write short notes on Thoracic & Lumbar spine?

Ans:-

Thoracic spine

- Longest region of the spine.
- Connecting with the cervical spine above and the Lumbar spine below, thoracic spine runs from the base of the neck down to the abdomen.
- It is the only spinal region attached to the rib cage.
- T₁-T₁₂.
- Larger and stronger than Lumbar vertebrae.
- Spinous process of T₁ and T₁₂ are long, laterally, flattened, and directed inferiorly.
- Spinous process of T₂ and T₁₂ are shorter, broader, and directed more posteriorly.
- Articulate with the ribs.

(P. 10)

(4)

- Articulating surface of the vertebrae are called facets.
- The bodies of the thoracic vertebrae also have facets.
- The articulation b/w the thoracic vertebrae and the ribs called vertebrae: costal joint.
- T₁ has a superior facet and inferior demifacets for head of ribs.
- T₂-T₈ have superior and inferior demifacets for head of ribs.
- T₉ has a superior demifacets.
- T₁₀ and T₁₂ have superior facet.

Typical Thoracic vertebrae

- Larger body than lumbar but smaller than lumbar.
- Spinous process pointed and angled down ward.
- Superior articulate facets face post permitting some relation b/w adjacent vertebrae.

CP.T.O,

(5)

→ Ribs attachment - costal facets on vertebrae body and at end of transverse process for articulation ribs.

Atypical vertebrae

→ T1:- Superior facet is not a demifacet as this is the only vertebrae to articulate with the 1st ribs.

→ T10:- A single pair of whole facets is present which articulate with the 10th ribs.

→ T11 & T12:- Each have a single pair of entire costal facets, which are located on the pedicles.

Lumbar spine

→ The lumbar region of the spine, more commonly known as the lower back, consists of five vertebrae labeled L1 through L5.

CP.T.O

(6)

→ The lumbar region is situated below the Thoracic, or chest, region of the spine, and the Sacrum.

→ The lumbar spine typically has a slight inward curve known as lordosis.

→ The lumbar spine consists of 5 movable vertebrae numbered L₁-L₅.

→ The complex anatomy of the lumbar spine is a remarkable combination of these strong vertebrae, multiple bony elements linked by joint capsules, and flexible ligaments/tendons, large muscles, and highly sensitive nerves.

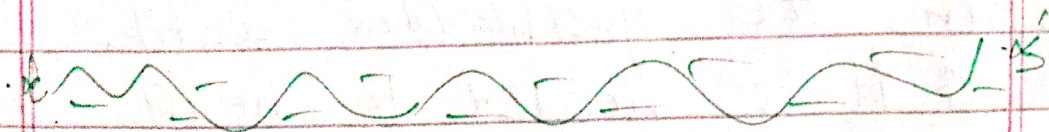
→ It also has complicated innervation and vascular supply.

→ The lumbar spine is designed to be incredibly strong, protecting the highly sensitive spinal cord and spinal nerve roots.

CP 1.0

(7)

- At the same time, it is highly flexible, providing for mobility in many different planes including flexion, extension, side bending, and rotation.
- Largest and strongest in the vertebral column because the amount of body weight supported increase towards the inferior end of the backbone.
- Superior articular process directed medially instead of superiorly and the inferior articular facets directed laterally instead of inferiorly.
- Spinous process are thick, broad and project posteriorly - attachment of the large back muscles.
- 5 lumbar vertebrae.



Q5: - write a note on formation of common bile duct (CBD) also name the arteries of (P. 10)

⑧

upper legs?

Ans:- Formation of common bile duct:-

- The common bile duct is a small, tube-like structure formed where the common hepatic duct and the cystic duct join.
 - Its physiological role is to carry bile from the gall bladder and empty it into the upper part of the small intestine (the duodenum).
 - The common bile duct is part of the biliary system.
 - Bile is a greenish-brown fluid that helps digest fats from our food intake.
 - It is produced by the liver and stored and concentrated in the gall bladder until it is needed to help digest foods.
 - When food enters the small intestine, bile travels
- (P.T.V)

(9)

through the common bile duct to reach the duodenum.

→ Gallstones are hard deposits that form inside the gallbladder when there is too much bilirubin or cholesterol in the bile.

→ Although a person may have gallstones for many years without feeling any symptoms, gallstones can sometimes pass through the common bile duct, causing inflammation and severe pain.

→ If a gallstone blocks the common bile duct, it can cause cholelithiasis.

→ Symptoms of cholelithiasis include pain in the right side of the abdomen (biliary colic), jaundice, and fever.

→ Cholelithiasis can be life-threatening if not diagnosed and treated immediately.

CP 79

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Arteries of upper legs

Right Arteries

- Aorta
- Common iliac artery.
- External iliac artery.
- Internal iliac artery.
- Deep Femoral artery
- ~~superficial artery~~ superficial femoral artery.
- Popliteal artery

Left Arteries

- Aorta
- Common iliac artery.
- External iliac artery.
- Internal iliac artery.
- Deep Femoral artery
- ~~superficial artery~~ superficial femoral artery.
- Popliteal artery



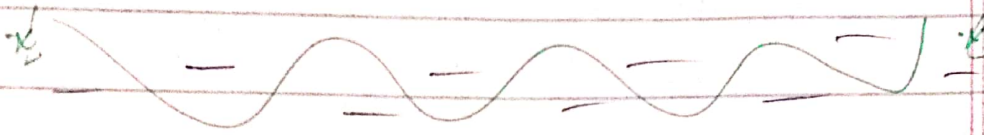
Q2:-

Ans:- Arteries of CT abdomen

- Arteries of the CT abdomen are given below.
 - Splenic Artery
 - Coeliac Artery.
 - Superior Mesenteric Artery^{ies} (2)
 - Right Renal Artery
- CP: 4.9

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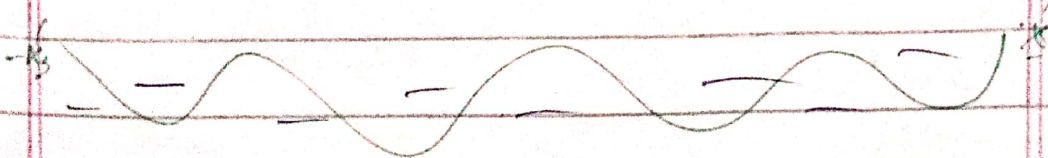
- Left renal artery
- Common iliac arteries (2)
- Internal iliac artery
- External iliac artery



Q1:

Ans: Structure appear on the MRI of heart, some are given below.

- ① Right ventricle.
- ② Left ventricle
- ③ Diaphragmatic Fat
- ④ Pericardiac fat
- ⑤ Chest wall
- ⑥ Liver
- ⑦ Stomach
- ⑧ Left lungs
- ⑨ Right Lungs
- ⑩ Papillary muscle.



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The End