

①

Name.

Shahab ali

ID # 13801

subject paper.

Biomechanics.

Date - 28-09-2020.

1 ——— 1 ——— 1 ——— 1 ——— 1

Ans: (1)

primary curvatures of spine:

- The thoracic and sacral curvatures are termed primary curves because they are present in fetus and remain in the same in the adult

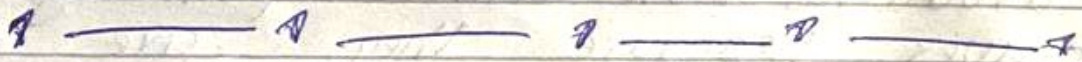
= During the fetal development the body is fixed anteriorly into the fetal position giving the entire vertebral column a single curvature that is concave anteriorly.

- In the adult this primary curvature is retained in two regions of the vertebral column as the thoracic curve which involves the thoracic vertebral and the sacrococcygeal curve formed by the sacrum and coccyx.

(2)

Secondary curvatures of spine

→ Develop gradually after birth as the child learns to sit upright. Stand and walk secondary curves are concave posteriorly opposite in direction to the original fetal curvatures. The cervical curve of the neck region develops as the infant begins to hold their head upright when sitting, later as the child begins to stand and then to walk, the lumbar curve of the lower back develops in adults the lumbar curve is generally deeper in females.



Ans: (2)

Ligaments of cervical spine

- Anterior longitudinal ligament
- Anterior atlanto-occipital membrane
- epical ligament
- cruciate ligament of the atlas
- posterior longitudinal ligament
- ligamentum flavum
- ligamentum nuchae
- Interspinous ligaments
- supraspinous ligaments

3

limitation of cervical spine ligaments:

Anterior longitudinal ligaments.

Extention and reinforce front of ~~vertebrae~~ annulus fibrosis.

posterior longitudinal ligament.

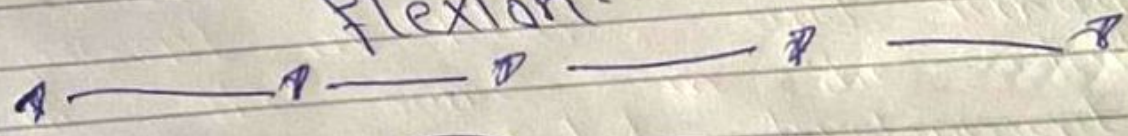
flexion and reinforce back of annulus fibrosis.

ligamentum flavum.

Flexion

supraspinous.

flexion.



Ans: 3

myotomes.

muscle nerve supply of myotomes.

Myotomes of upper limb.

C5 - Elbow flexion.

C6 - wrist extension

(4)

C7 - Elbow flexion
C8 - Finger flexion
T1 - Finger abduction.

Myotomes of lower limb.

L2 - Hip flexion

L3 - Knee extension

L4 - ankle dorsiflexion

L5 - Great toe extension

S1 - Ankle plantar flexions.

