

Name: [redacted]

HK\*3402 Winter 2010  
SHORT ANSWER QUESTIONS

12 1/2

QUESTION 1.

Scenario: You have been pulled over by a police officer for driving too fast. Fortunately, it is your lucky day. The police officer just so happens to be an anatomist who loves to challenge citizens on their knowledge of human anatomy, in exchange for leniency.

His Challenge to You: If your heel is held in a stationary position and is used as a pivot point, consider the movements the foot undergoes in speeding up and slowing down.

The officer poses the following questions to you:

Why were you speeding? (fyi, what he really means is: 1) what movement is required to depress the gas pedal, and 2) what muscles did you use to perform this movement?)

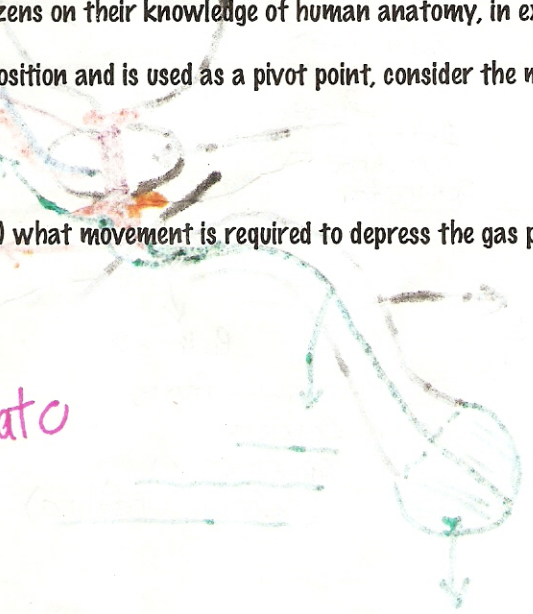
• Plantar Flexion

- Muscles

- Gastrocnemius
- Soleus
- Plantaris
- Tibialis Posterior.

lato

1 1/2



What movement would have been required to release the gas pedal? What muscles would be used to perform this movement?

• Dorsi Flexion

- Muscles

- Tibialis Anterior
- Flexor Hallicis Longus?

If the heel is stationary and used as a pivot point:

- Would you still be able to depress the gas pedal following calcaneus tendon rupture? Why/Why not?
- Yes b/c gastrocnemius, soleus and ~~Tibialis Post~~ Plantaris insert attach to calcaneal tendon, but Tibialis Post. is left, but will only have miniscule effect on depressing the gas pedal.
- Would you still be able to depress the gas pedal following complete severance of the tibial nerve? Why/Why not?

1

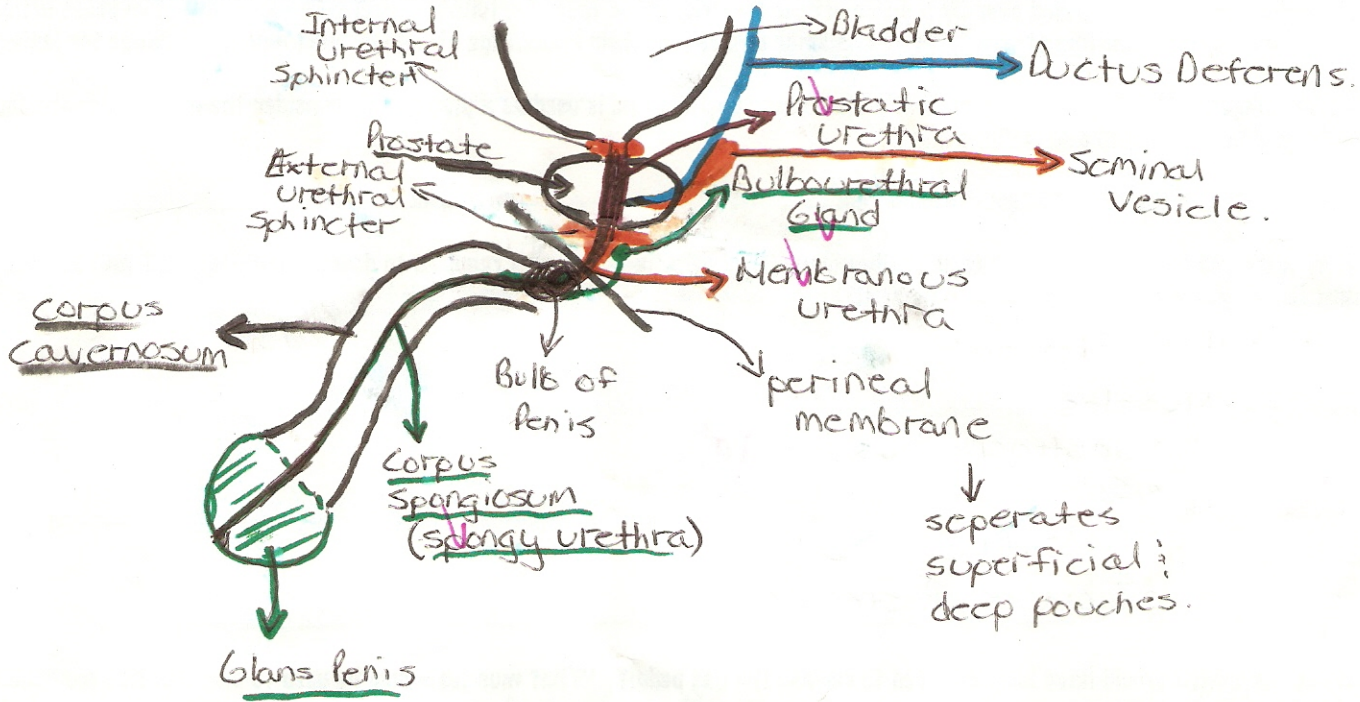
Name: \_\_\_\_\_

**QUESTION 2.** Complete only one of the following two questions:

insertion of male urethral catheter. Use a diagram to describe the path of the catheter and structures encountered during its insertion.

OR

Use a diagram to describe structures relevant to the pelvic diaphragm. Be sure to include relevant landmarks.



What structures contribute to the perineal body? What is its significance?

- 1/2
- Perineal Body stabilizes the muscles of superficial and deep perineal pouches (acts as a common insertion point)
- stabilizes the urogenital triangle.
- Contributors
- Bulbospongiosum
  - Superficial Transverse Perineal Muscle
  - Deep Transverse perineal Muscle.

**Bonus Question:** Hypospadias is a common congenital anomaly of the penis. This anomaly is characterized by a defect on the ventral surface of the penis so that the external urethral orifice is more proximal than normal. For example, the external urethral orifice may be on the ventral aspect of the glans or body of the penis. What is the embryological basis of this congenital anomaly.

- 1
- Maybe the raphe of the ~~penis~~ penis never fused together closing up the shaft of penis
  - ∴ you would have an opening in the raphe area where the external orifice might be instead of the distal end of glans penis.

8/2

Name

Stu

HK\*3402

PRACTICAL TEST #1 Lower Limb and Pelvis

56.5

57.5

Sam (Friday Wave) March 11 - 12, 2010

Wave 1 Wave 2 Wave 3 Wave 4 Wave 5 Wave 6

- |        |                                   |        |  |
|--------|-----------------------------------|--------|--|
| 1 1A.  | <u>Internal Iliac Artery</u>      | 1 1B.  | <u>Umbilical Artery</u>  |
| 1 2A.  | <u>Superior Vesicle Artery</u>    | 1 2B.  | <u>Inferior Vesicle Artery</u>                                       |
| 1 3A.  | <u>Iliopsoas Muscle</u>           | 1 3B.  | <u>Gluteus Medius</u>  |
| 1 4A.  | <u>Sacrospinous Ligament</u>      | 1 4B.  | <u>Lesser Sciatic Foramen</u>  |
| 1 5A.  | <u>Soleus</u>                     | 1 5B.  | <u>Plantaris</u>   |
| 1 6A.  | <u>Fibularis Longus</u>           | 1 6B.  | <u>Fibularis Brevis</u>  |
| 1 7A.  | <u>Flexor Hallicis Longus</u>     | 1 7B.  | <u><del>Peroneus</del> Tibial <sup>Nerve</sup> <del>Artery</del></u> |
| 1 8A.  | <u>Tibialis Anterior</u>          | 1 8B.  | <u>Dorsi Flexion</u>   |
| 1 9A.  | <u>Sartorius</u>                  | 1 9B.  | <u>Gluteus Minimus</u>   |
| 1 10A. | <u>Semitendonsus</u>              | 1 10B. | <u>Gracilis</u>  |
| 1 11A. | <u>Common Fibular Nerve</u>       | 1 11B. | <u>Popliteal Artery</u>  |
| 1 12A. | <u>Superior/Inferior Gemellus</u> | 1 12B. | <u>Adductor Magnus</u>   |
| 1 13A. | <u>Iliacus</u>                    | 1 13B. | <u>Lateral Femoral Cutaneous<br/>Nerve of Thigh</u>                  |
| 1 14A. | <u>Psoas Minor/Major</u>          | 1 14B. | <u>Genitofemoral Nerve</u>   |
| 1 15A. | <u>Tensor of Fascia Latae</u>     | 1 15B. | <u>Superior Gluteal Nerve</u>  |

- 16A. Sartorius 16B. Superior Aspect of Medial Surface of Tibia.
- 17A. Prostate 17B. Pubic Symphysis
- 18A. Piriformis 18B. Anterior Sacral Trunks.
- 19A. Superior Gemellus. 19B. Nerve to Obturator Internus.
- 20A. Lateral Circumflex Femoral Artery. 20B. Deep Artery of Thigh
- 21A. ~~Superior~~ Obturator Nerve (Right) 21B. Adductor Longus. ~~Nerve to adductor~~
- 22A. Obturator Nerve 22B. Abductor Brevis.
- 23A. Deep Branch of Common Fibular Nerve 23B. Anterior Tibial Artery
- 24A. Anterior Tibial Artery 24B. Extensor Hallicis Longus.
- 25A. Sartorius 25B. Biceps Femoris
- 26A. ~~Flexor~~ Fibularis Brevis ~~digitorum longus~~ 26B. Plantar Flexion
- 27A. Coccygeus Muscle 27B. Piriformis
- 28A. Urinary Bladder 28B. Prostate
- 29A. Ductus Deferens 29B. Ureter
- 30A. Ischiocavernosus 30B. Dulbospongiosus