

NATIONAL UNIVERSITY OF SCIENCE AND TECHNOLOGY

FACULTY OF MEDICINE

DIVISION OF BASIC MEDICAL SCIENCES

BACHELOR OF MEDICINE AND BACHELOR OF SURGERY DEGREE
PART 1 EXAMINATIONS

MBM 1201 : ANATOMY: PAPER II

DATE : JUNE 2013

TIME : 3 HOURS

Instructions to Candidates

Answer all questions on the answer booklet provided.

SECTION A (40 MARKS)

1. Describe the process of fertilization beginning with deposition of sperm in the vagina. (20)
 2. Briefly, describe the gross anatomy of the duodenum. (20)
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SECTION B (60 MARKS)

3. A 17 year old boy was examined in the casualty department after being stabbed with a kitchen knife. He was found to have a penetrating wound in the right upper quadrant of the abdomen. Name all structures that could possibly have been injured. (5½)
4. List **four** (4) functions and actions of the anterolateral abdominal muscles. (4)

5. Use the diagram below to answer the questions (a) and (b)

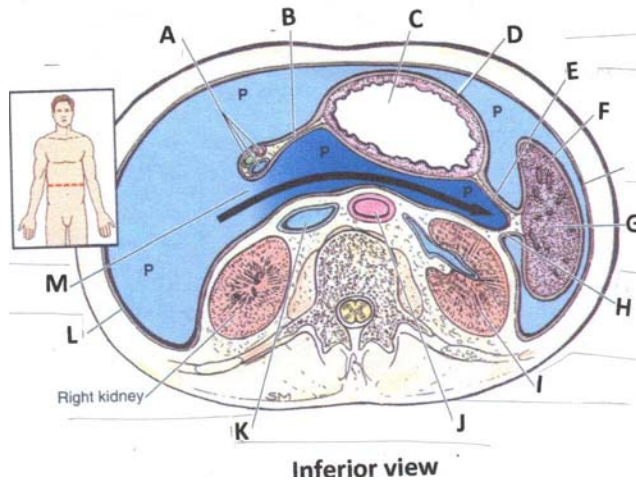
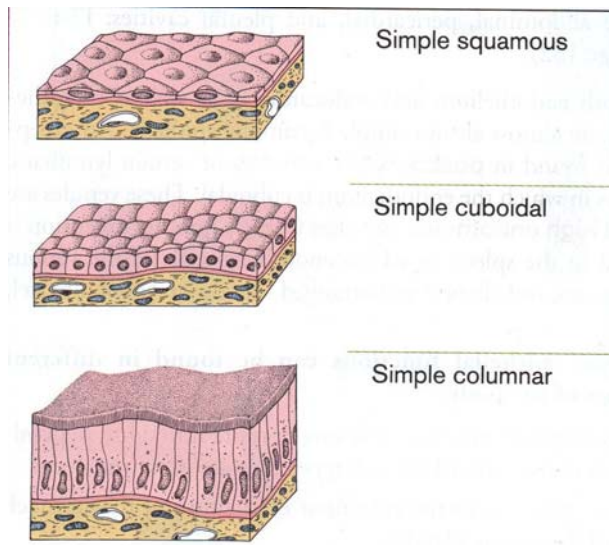


Figure 1: Transverse section of the abdomen at the level of the foramen bursae omentalis (Winslow's foramen).

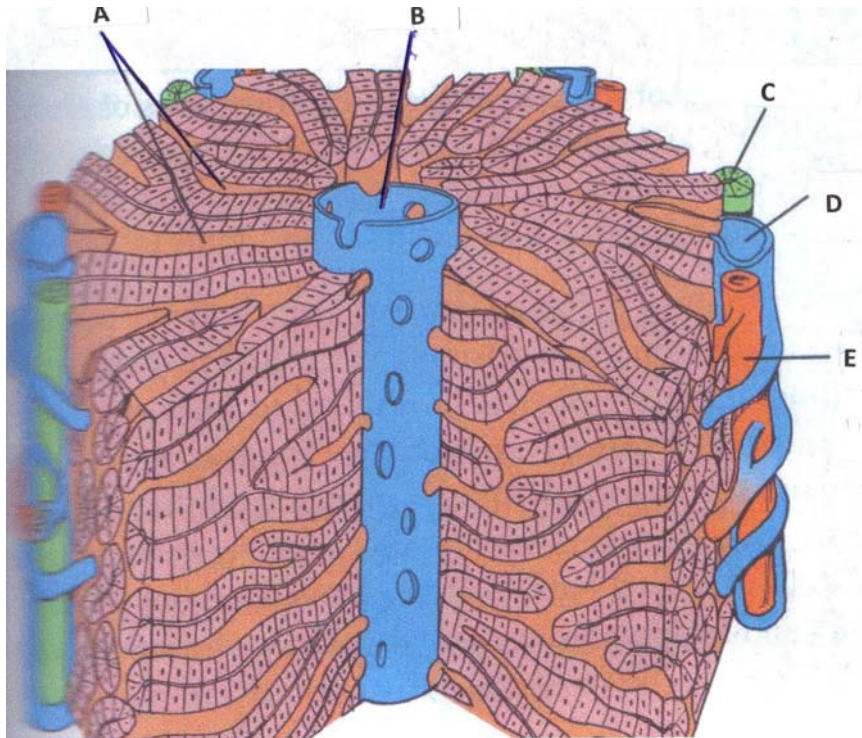
- a. In your answer book, list the structures labelled A to M in the diagram above. (6½)
- b. Briefly, describe the following terms:
 - i. intraperitoneal organs,
 - ii. retroperitoneal (2)
- c. Briefly, describe subperitoneal organs. (1)
- d. Briefly outline the embryological development of the peritoneal cavity and its viscera. (4½)

6. **Figure 2** shows some very basic classification of simple epithelia.



- a. Give three typical locations of each of these types of epithelia. (4½)
- b. List the major functions of each epithelia mentioned in **(a)** above (4½)
7. Briefly, describe the ligamentous connections of the liver and the stomach. (3)
8. Describe the anatomical divisions of the stomach. (7)

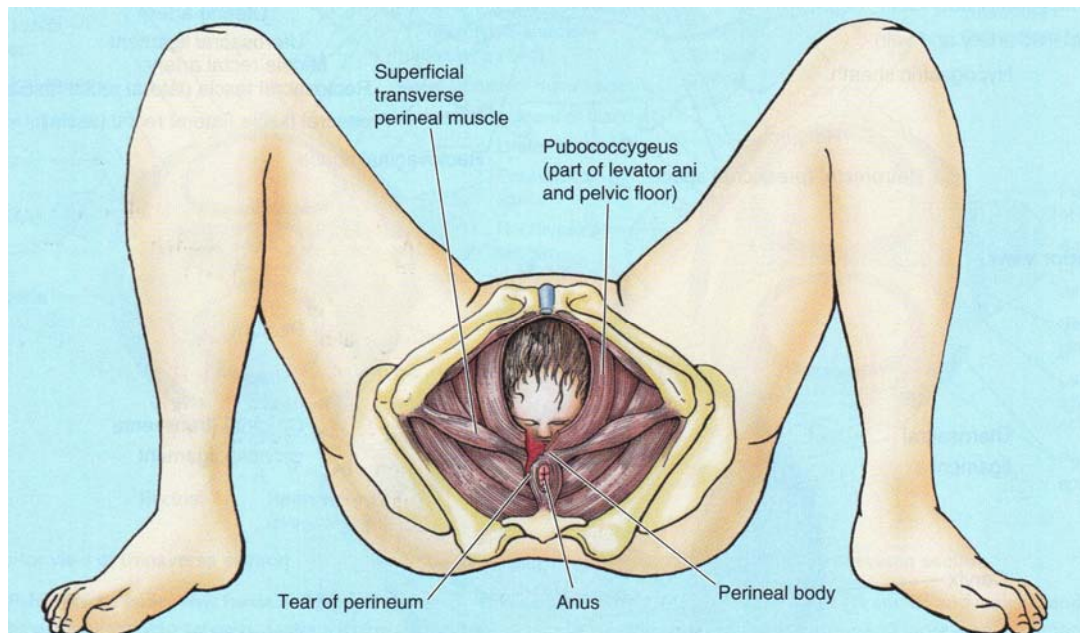
9. **Figure 3** shows a diagram of a classic liver lobule.



- a. In your answer sheet, name the parts labelled **(A)** to **(E)** in Figure **(3)**. (2½)

- b. Making reference to the diagram, briefly describe the anatomy of a classic liver lobule. (5)

10. **Figure 4** below shows a woman in lithotomy position during vaginal delivery at term.



- a. What common perineal injury associated with child birth is shown? (1)
- b. What other injury commonly occurs to the osseo-ligamentous complex of the pelvis during the same process? (1)
- c. List three essential features of the lithotomy position illustrated here (3)
- d. This picture shows delivery at term (40 weeks of pregnancy). If we turn the clock back to week two (bilaminar germ disc), draw an implanted embryo at about day 7.5 and explain, briefly, the roles of the epiblast, hypoblast, amniotic cavity and cytotrophoblast. (5)

END OF EXAMINATION

