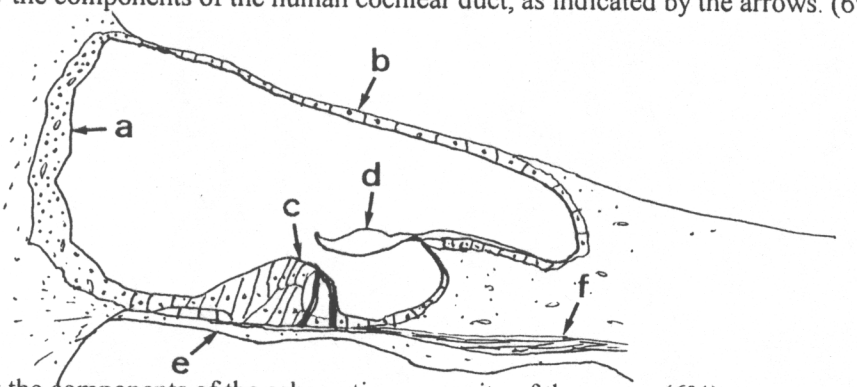
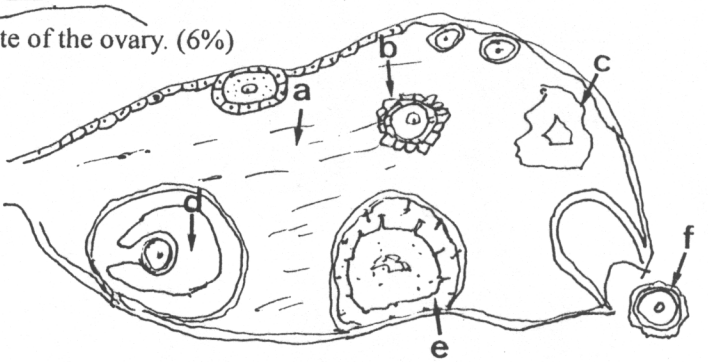
I. QUESTIONS (61%)

1. Describe the difference between the cardiac and skeletal muscle under transmission electron microscope. (7%)
2. Describe the structure and the events of impulse transmission in the chemical synapse. (7%)
3. Draw and identify the structures of gap junction (communicating junctions) and desmosomes (maculae adherentes). (8%)
4. Draw and show the structures (in the longitudinal section) of the human duodenum. (6%)
5. Compare the structural difference of aorta and azygos vein. (7%)
6. Describe the structural difference of lymph node and spleen. (7%)
7. Describe the process of spermiogenesis. (7%)
8. Identify the components of the human cochlear duct, as indicated by the arrows. (6%)



9. Identify the components of the schematic-composite of the ovary. (6%)



II. Answer the questions briefly (3% for each term).

1. diaphysis
2. immunocytochemistry
3. axonal transport
4. Langerhans cells (of the epidermis)
5. vasa vasorum
6. enteroendocrine cells
7. blood-testis barrier
8. lysosomes
9. MALT (mucous-associated lymphoid tissue)
10. optic disk
11. monocytes
12. the islets of Langerhans
13. MTOC (microtubule organizing center)