Draw and label an osteon of compact bone tissue; mention FOUR microscopic differences between compact and spongy tissues in a tabular form. Explain osteopetrosis.  
2. Enumerate FIVE substages of prophase of meiosis-I; explain the dictyotate pause in oocytes and mention its clinical implication.  
3. Define complex joint; mention THREE examples from upper limb. Explain the movements of uniaxial complex joint of upper limb which has pivot structural appearance. Why screws, nuts and bolts are tightened with the right hand by all the persons (irrespective of handedness)?  
4. Define pennate muscles; mention their functional significance. Classify them; mention ONE example of each type from lower limb. Write origin, insertion, nerve supply and actions of bipennate muscle belonging to thigh.  
5. Explain the lymphatic drainage of lungs and pleura.  
6. Explain the origin, course and distribution of arteries supplying the thoracic wall; explain the importance of intercostal arteries in coarctation of aorta.