IDENTIFICATION POINTS OF HISTOLOGY SLIDES

1. **SIMPLE SQUAMOUS EPITHELIUM**
   - Single layer of cells
   - Flat cells
   - Flat nucleus

2. **SIMPLE CUBOIDAL EPITHELIUM**
   - Single layer of cells
   - Cube like cells
   - Oval nucleus originated along the length of the cell

3. **SIMPLE COLUMNAR EPITHELIUM**
   - Single layer of cells
   - Tall cells
   - Oval nucleus oriented along the length of cell

4. **PSEUDOSTRATIFIED EPITHELIUM WITH GOBLET CELLS AND CILIA**
   - Single layer of cells
   - Nuclei arranged at different levels
   - Tall columnar cells with cilia; short basal cells present
   - Goblet cells present

5. **STRATIFIED SQUAMOUS NON-KERATINIZED EPITHELIUM**
   - Multiple layer of cells
   - Basal cells are columnar
   - Middle layers of polygonal cells
   - Scale like surface cells with flat nuclei
   - Keratin layer is absent on surface of epithelium

6. **STRATIFIED SQUAMOUS KERATINIZED EPITHELIUM**
   - Multiple layers of cells
   - Basal cells are columnar
   - Middle layers of polygonal cells
   - Flat surface cells
   - Keratin layer is present on the surface and cells on surface don’t show nucleus

7. **STRATIFIED COLUMNAR EPITHELIUM**
   - Two layers of tall cells
   - Oval nucleus arranged along the long axis of cell

8. **TRANSITIONAL EPITHELIUM**

- Multiple layer of cells
- Pear shaped cells in the middle
- Dome shaped cells on surface

9. LOOSE AREOLAR CONNECTIVE TISSUE

- Almost all connective tissue cells are present
- All connective tissue fibers are present
- Fibers are loosely arranged

10. ADIPOSE CONNECTIVE TISSUE

- Fat cells showing signet ring appearance
- Each cell having a large fat globule and marginal nucleus

11. DENSE REGULAR CONNECTIVE TISSUE

- Densely packed collagen fibers running parallel to each other
- Fibroblast are present between the bundles of collagen fibers

12. DENSE IRREGULAR CONNECTIVE TISSUE

- Densely packed collagen fiber arranged irregularly in different directions
- Fibroblast are present between the bundles of collagen fibers

13. HYALINE NON-ARTICULAR CARTILAGE

- Perichondrium present
- Glassy (homogenous) ground substance
- Chondrocytes making isogenous groups
- Territorial matrix
- Interterritorial matrix

14. ELASTIC CARTILAGE

- Perichondrium present
- Branching elastic fibers present
- Scattered chondrocytes are present singly or as pairs

15. FIBROCARTILAGE

- Perichondrium absent
- Thick type I collagen fibers are present in the matrix
- Chondrocytes arranged in rows

16. COMPACT BONE

- Characteristic lamellae of bone matrix
- Haversian and Volkmann's canals are present
- Osteocytes in lacunae
- Haversian system present

17. **SPONGY BONE**
    - Trabeculae of bone matrix
    - Hemopoietic (bone marrow) tissue
    - Few haversian system

18. **SKELETAL MUSCLE**
    - Well marked cross striations
    - Non branching cylindrical fibers
    - Many sub-sarcolemmal flat nuclei
    - Endomysium and perimysium present

19. **CARDIAC MUSCLE**
    - Cross striations present
    - Branching fibers
    - Intercalated disc present
    - 1 to 2 oval central nuclei

20. **SMOOTH MUSCLE**
    - Fusiform cells
    - Single, rod shaped, central nucleus in each cell

21. **MUSCULAR ARTERY**
    - Tunica intima, media and adventitia are present
    - Tunica media is thick smooth muscle layer
    - Internal and external elastic lamina are present
    - Patent lumen

22. **MUSCULAR VEIN**
    - Thin walled with larger irregular lumen
    - Tunica intima, media and adventitia are present
    - Thick tunica media is thin smooth muscle layer
    - Adventitia is thicker than tunica media

23. **ELASTIC ARTERY**
    - Tunica media contain 30 – 40 layers of elastic fibers
    - Smooth muscle is less abundant
    - External elastic lamina is not well marked

24. **LYMPH NODE**
    - Connective tissue capsule
    - Cortex and medulla is present
    - Lymph nodules are only situated in the cortex and have no central arterioles

25. **SPLEEN**

- Peritoneal covering (serosa)
- Red and white pulp
- No differentiation into cortex and medulla
- Splenic nodules with central arteriole

26. PALATINE TONSIL

- Tonsillar crypts lined by stratified squamous non-keratinized epithelium
- No lymph sinuses
- Lymph nodules are arranged in rows

27. THYMUS

- Characteristic lobules with cortex and medulla
- Hassall's corpuscles
- No lymph sinsuses

28. THIN SKIN

- Epidermis and dermis
- Stratified squamous keratinized epithelium with thin layer of keratin on surface
- Dermal papillae
- Hair roots and hair follicles present
- Sebaceous glands are present

29. THICK SKIN

- Epidermis and dermis
- Stratified squamous keratinized epithelium is present with thick layer of keratin on surface
- Dermal papillae
- Hair roots and hair follicles absent

30. SPINAL CORD

- Central canal is present
- Inner butterfly shaped arrangement of grey matter
- Multipolar neurons in the anterior horn
- Outer white matter

31. CEREBELLUM

- Outer grey matter having 3 layers (molecular layer, Purkinje cell layer, granular layer)
- Inner white matter

32. CEREBRUM

- Outer grey matter having six layers
- Pyramidal cells
- Inner white matter

33. DORSAL ROOT GANGLION

- Connective tissue capsule present
- Pseudounipolar neurons surrounded by satellite cells

34. PERIPHERAL NERVE

- Bundle of fibers
- Myelin sheath is seen as unstained area
- Endoneurium, perineurium is visible