**IDENTIFICATION POINTS OF GENERAL 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
* rounded central nucleus

**3: Simple columnar epithelium:**

* Single layer of cells
* Tall cells
* Oval nucleus oriented along the length of cell

**4: Pseudotratified 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 layers of cells
* Basal cells are columnar
* Middle layers of polygonal cells
* Scale like surface cells with flat nuclei
* Keratin layer is absent on the surface of epithelium

**5: 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

**6: Stratified cuboidal epithelium:**

* Two layers of cells
* Surface cells are cuboidal with central rounded nucleus

**7: Stratified columnar epithelium:**

* two layers of tall cells
* oval nucleus arranged along the long axis of cell

**8: transitional epithelium:**

* multiple layers of cells
* pear shaped cells in the middle
* dome shaped cells on the 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 the bone matrix
* Haemopoitic (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
* 1-2 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 sinuses

**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 sheah is seen as unstained area
* Endoneurium, perineurium is visible