The following is merely meant as a guide. While the following may not specifically list or specifically every question on the practical, it should serve as a good guide to the main thrust of the practical. Format: Each figure of the exercise is listed with each item we covered on it. A lot of material listed, however, MUCH of it is same material listed several times in different figures.

**BE CAREFUL:** When taking exam, be SURE that answer “a.” matches with my question “a.” Many

**Exercise 35: Lymphatic System**

Terms/anatomy (terms & characteristics) to Know:

Pg. 357: lymphatic system (what it consists of, what it does, definition),
Use the figures as well as the Thoracic Models in the lab

- **Fig 35.1** Lymphatic collecting vessels, lymph nodes, thoracic duct
- **Fig 35.1b** Lymph capillary, collecting vessel/valve, lymph node (what occurs here?, what cells involved?), lymph trunk/duct
- **Fig 35.2** Thymus & spleen
  - Immune response: adaptive; Characteristics: memory, specificity, ability to differentiate
  - Lymphoid organs (know names & location, T & B Cells, clonal selection); plasma cells, humoral immunity (cytotoxic T cells, helper T cells),
- **Fig 35.3** Plate 28. Afferent lymphatic vessels, Follicle w/Germinal center, Capsule, Trabecula, efferent lymphatic vessels, hilus
- **Fig 35.4** Variable portion (light & Heavy chain, antigen binding site), constant region
  - (complement binding site, macrophage binding site)
  - Antibodies are immunoglobulins, 5 classes of antibodies, ELISA

**Exercise 36: Anatomy of Respiratory**

Terms/anatomy (terms & characteristics) to Know:

Ventilation/respirations listed on 365

- **Fig 36.1:** External nares, nasal cavity (what function here?), nasal septum, nasal conchae, Pharynx (Nasopharynx, Oropharynx, Laryngopharynx), Uvula, Fauces, Esophagus, hard & soft palate, tongue, epiglottis, thyroid cartilage, cricoid, trachea
- **Fig 36.2:** Thyroid cartilage, Laryngeal prominence (Adam’s Apple), epiglottis, Cricoid cartilage, vocal fold (true vocal cord)
- **Fig. 36.3:** Lobes of Lung (Right: superior, middle, inferior; Left: superior, inferior) , trachea, primary bronchus, secondary bronchus, tertiary brochus, terminal bronchiole, respiratory bronchioles alveoli, alveolar duct
- **Fig. 36.4:** Note the layers O₂ or CO₂ has to travel through between alveolus & pulmonary capillary bed: Capillary endothelium, basil lamina (capillary & alveolar), alveolar epithelium
- **Fig. 36.5:** Right Lung Lobes (upper, middle, lower), diaphragm, base, apex, Left Lung Lobes (superior, inferior), cardiac notch
- **Fig. 36.6b:** (Plate 33). Pseudostratified ciliated columnar epithelium, Hyaline cartilage, goblet cells
- **Fig. 36.7a:** Bronchiole: Pseudostratified epithelium, smooth muscle, lumen
- **Fig. 36.7b:** Respiratory bronchiole, Alveolar duct, Alveoli
Exercise 37A:
Terms/anatomy (terms & characteristics) to Know:
- Remember how the pressures in the plural cavity / intraplural change with inspiration and expiration.
- Fig. 37A.2 Know the volumes & capacities shown here
- Activity 2: Be familiar with the exercise as we did it, how we computed the different volumes that we could not directly measure.

Exercise 38:
Terms/anatomy (terms & characteristics) to Know:
- Basic description, function, anatomy of the digestive system
- Alimentary canal = Gastrointestinal (GI) tract (about 9 meters), accessory organs
- Fig. 38.1: Mouth, esophagus, liver, cystic duct, gallbladder, bile duct, small intestine (duodenum, jejunum, ileum), anus, tongue, salivary glands (parotid gland, sublingual, submandibular), pharynx, common hepatic duct, stomach, pancreas, spleen, Large Intestine (colon [ascending, transverse, descending, sigmoid], cecum, rectum, vermiform appendix, anal canal)
- Fig. 38.2: Mucosa (epithelium, muscularis mucosae), Submucosa, Muscularis externa (longitudinal & circular muscle), Serosa (epithelium, connective tissue), M.A.L.T., lumen
- Fig. 38.3: Gingivae (gums), hard/soft palate, uvula, vestibule, superior/inferior lip, oropharynx, tongue
- Fig. 38.4: Uvula, Soft & hard palate, oral cavity, tongue, oropharynx, epiglottis, laryngopharynx, esophagus, trachea
- Fig. 38.5: (a) Esophagus, Muscularis externa (longitudinal-outer, circular-middle, oblique-inner), cardiac region, fundus, serosa, body, rugae, greater curvature, pyloric region, pyloric sphincter, duodenum
  (b) Gastric pit, gastric gland, parietal cell (Hcl), Chief cell (pepsin),
- Fig 38.6: (a) Plate 37 (p. 693): Muscularis external (longitudinal, circular), submucosa, mucosa
- Fig. 38.8: Large circular folds, villi, lumen, absorptive cells, goblet cell, microvilli
- Fig. 39b: Plate 41 (Ilium): Muscularis externa, submucosa, Peyer’s patches
- Fig. 38.10: Veriform appendix, cecum, ileocecal valve, ileum, ascending colon, transverse colon, hepatic flexure, transverse colon, splenic flexure, descending colon, sigmoid colon, rectum, anal canal, external anal sphincter
- Fig. 38.11: Know different types of teeth (incisors, canines, premolars, molars), know the dental formula
- Fig. 38.12: Crown, neck, root, enamel, dentin, pulp cavity, cementum, root canal, peridontal ligament
- Know/Identify salivary glands: parotid, submandibular, sublingual
- Fig. 38.14: Lobule (connective tissue), Portal triad (portal arteriole, portal venule, bile duct), hepatocytes