Exercise 21 – Anatomy of blood vessels

1. Fig 21.1 – pay attention to structure of arteries, capillaries and veins.

2. Major arteries In Fig 21.2 – read and remember organs supplied by these arteries

3. aorta → left and right coronary artery

4. aortic arch → 1 brachiocephalic 2 left common carotid 3 left subclavian

5. Brachiocephalic → 1 right subclavian 2 right common carotid

6. Thoracic aorta → esophagus, inter costal muscles and diaphragm

7. Abdominal aorta → 1 celiac trunk 2 superior and inferior mesenteric arteries 3 suprarenals 4 gonadial

8. Abdominal aorta divides into 2 common iliacs that supply blood to pelvis and leg of its side.

9. Main veins – fig 21.6 – External jugular from head and neck, axillary from the arm, both join to form subclavian veins.

10. Subclavians open into Brachiocephalic veins that also receive vertebral and internal jugular veins.

11. 2 brachiocephalic veins form Superior Vena cava that receive Azygos system – collects blood from chest. Superior vena cava opens into right atrium.

12. Femoral and other veins of leg form Common Iliac vein on each side.

13. Common Iliac veins join to form Inferior vena cava.

14. Inferior vena cava receives blood from 4 veins. 1. suprarenal veins, adrenal gland 2. gonadal from ovary or testis 3. renal veins from kidney on each side 4. hepatic veins from liver.

15. **Hepatic Portal System:** Note that Inferior vena cava does not receive blood from any digestive organs other than liver. Hepatic Portal Vein is formed of 2 main veins, Superior Mesenteric and Splenic vein. 1. Superior Mesenteric collects blood from small intestine, and parts of colon and stomach. 2. Splenic vein is formed by fusion of inferior mesenteric vein from lower large intestine. Fig 21.12 and 13.26, Text book.

16. Inferior vena cava opens into right atrium.