

10. (a) Write the relationship between the power 'P' consumed by a device, its resistance 'R' and current 'I' flowing through it. (2)
- (b) An electric iron of resistance 20Ω takes a current of 5A. Calculate its:
(i) electric power and (ii) the heat generated by it in 5seconds.
11. A drop of water is poured over a white powdery substance. Then it is observed that substance turns blue. Answer the following questions: (3)
- (a) What is the white powdery substance?
(b) Why does the substance change to blue color?
(c) Write the chemical formula of the blue substance.
12. Draw a neat sketch of the human heart and label the following parts: (3)
- a) Pulmonary artery
b) Aorta
c) Vena cava
13. (a) Draw the pattern of magnetic field lines due to a solenoid carrying electric current. (3)
Label the north and south poles in the diagram.
- (b) List two factors on which the strength of magnetic field produced by current carrying Solenoid depends.
