

PART - C

Answer any five of the following. Each question carries two marks:

 $(5 \times 2 = 10)$

- 17. a) Does more massive star has shorter wavelength? Explain.
 - b) Can all stars have equal masses? Explain.
 - c) Penetrating power of X-rays is greater than that of visible light. Justify.
 - d) Does all the energy levels are filled by electrons at absolute zero? Explain.
 - e) Large currents can not be passed through superconductors even though they have zero electrical resistance. Justify.
 - f) The depletion region of a semiconductor diode becomes wide when it is reverse biased. Explain.
 - g) Is ordinary light can be used for crystal diffraction? Explain.
 - h) The size of the collector is made wider than emitter and base. Explain.