



7. Which of the following instrument is used to measure the solar radiation?  
(a) Pyranometer (b) Anemometer (c) radiometer (d) Aerogenerator
8. A concentration type solar collector  
(a) First absorbs the radiation and then increases its concentration  
(b) Increases the density of solar radiation before absorbing it  
(c) Dilutes the density of solar radiation before absorbing it  
(d) Increases the intensity of solar radiation and then reflects it back
9. The range of wind speed suitable for wind power generator is  
(a) 0 to 5 m/s (b) 5 to 25 m/s (c) 25 to 50 m/s (d) 50 to 75 m/s
10. The maximum available wind power is  
(a) Directly proportional to square of the wind speed  
(b) Indirectly proportional to square of the wind speed  
(c) Directly proportional to cube of the wind speed  
(d) Indirectly proportional to cube of the wind speed

PART – B (3 x 8= 24 Marks)

**(Answer any three of the following questions)**

11. What are the various types of Electric breaking used in traction? Discuss in detail. (8)
12. Describe the construction and working of sodium vapour lamp. (8)
13. Explain the working principle of induction heating. Explain the working, advantages and drawbacks of direct core type induction furnaces. (8)
14. Describe with relevant diagram, sun's altitude, zenith and azimuth angles for solar radiation analysis.. (8)
15. Explain the basic components of wind energy conversion system with relevant block diagram. (8)