



12. (a) Describe construction and working of variable reluctance stepper motor with neat diagram. (16)

Or

- (b) (i) Explain in detail the power driver circuits of stepper motor. (10)  
(ii) Write in detail the microprocessor based closed loop operation of stepper motor. (6)

13. (a) (i) Explain in detail the power controllers for switched reluctance motor. (10)  
(ii) Explain the role of microprocessors in control of switched reluctance motor.

Or

- (b) (i) Describe the construction and working principle of SRM. (12)  
(ii) What are the applications and advantages of SRM? (4)

14. (a) Derive the emf and torque equation of a Brushless permanent magnet square wave motor. (16)

Or

- (b) Explain the construction of PMBLDC motor also compare conventional dc motor and PMBLDC motor. (16)

15. (a) Describe the construction and performance of PMSM with neat diagram. (16)

Or

- (b) Derive the emf and torque equation of a Brushless permanent magnet sine wave DC motor. (16)

