(Time: 3 Hours) **[Total marks: 80]**

N.B:- (1) **Question 1 is compulsory**
(2) Solve any **three** questions from remaining **five** questions.
(3) Figures to the right indicate **full** marks.

Q 1.	Answer the following questions. A) Draw single line diagram and show all substation devices. B) Write advantages and disadvantages of static relay. C) What do you mean by resistance switching D) What is the use of instrument transformer in power system	**20**
Q 2 a)	Explain protection provided for Radial, Ring Main, and parallel Feeder of transmission Line	**10**
Q 2 b)	Write a short note on different types of fuses	**10**
Q 3 a)	What do you understand by single phasing in induction motor. How motor is protected from single Phasing?	**10**
Q 3 b)	Explain with the help of neat sketch construction and working of SF6 circuit breaker	**10**
Q 4 a)	Explain the high resistance and low resistance method of arc quenching.	**10**
Q 4 b)	Explain construction, working principle of an induction disc type relay with neat sketch	**10**
Q 5 a)	Explain REF protection for alternator. How 100% winding is protected in an alternator	**10**
Q 5 b)	What are the desirable qualities of protective relaying	**10**
Q 6 a)	Differentiate between different types of distance relays.	**10**
Q 6 b)	Explain biased differential protection for transformer protection in detail	**10**
