Seat No.:	Enrolment No.
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GUJARAT TECHNOLOGICAL UNIVERSITY

M. E. - SEMESTER – I • EXAMINATION – WINTER 2012

	ubject code: 710707N Date: 16-01-201		
	Subject Name: Modern Power System Protection Fime: 02.30 pm — 05.00 pm Total Marks		70
Inst	truct	tions:	
	2.	Attempt all questions. Make suitable assumptions wherever necessary. Figures to the right indicate full marks.	
Q.1	(a)	Show basic component of digital relay with suitable diagram with signal conditioning subsystem	08
	(b)	State and explain sampling frequency and anti aliasing filter.	04
Q.2	(a)	What is LINKNET? Explain generalize linnet flow chart for over current relay.	06
	(b)	Draw flow chart for primary/backup relay pair. OR	06
	(b)	Draw the flow chart to determine plug setting.	06
Q.3	(a) (b)	Explain the working of single shot solid state reclosing relay. Explain consideration for reclosing system. OR	06 06
Q.3	(a) (b)	Explain term with ref to reclosing relay(1)instantaneous trip lockout(2)intermediate lockout(3)selective reclosing Explain the factor governing the application of reclosing.	06 06
Q.4	(a)	Explain frequency response during overload.	06 06
	(b)	Explain different criteria and procedure is considered while designing load shedding scheme. OR	vo
Q.4 Q.4	(b)	Explain load shedding scheme for loss of external source. Write short note on induction cylinder under frequency relay	06 06
0.5		Evaloin besig working principal of relay based on travelling a wayee	06
Q.5		Explain basic working principal of relay based on travelling a waves. Also explain travelling waves for internal and external f fault.	
	(b)	State and explain reasons for favoring series compensation of long EHV transmission lines.	06
		OR	
Q.5	(a)	Explain full cycle window algorithm with schematic diagram Explain the concept of following technique with reference to relay	06 06
	(b)	algorithm(1)differential equation based technique (2)least square error based technique.	33
