Seat No.:	Enrolment No

GUJARAT TECHNOLOGICAL UNIVERSITY

BE - SEMESTER-V EXAMINATION - WINTER 2015

•		ode: 150905	2/2015
Гim		30am to 1:00pm Total Mar	ks: 70
	1. A 2. N	Attempt all questions. Take suitable assumptions wherever necessary. Tigures to the right indicate full marks.	
Q.1	(A)	Explain the initiation of electric arc, what are the properties of arc?	, 7
	(B)	How arc extinction is done? Explain it by Slepian theory.	7
Q.2	(A)	Explain (i) Symmetrical and Asymmetrical Breaking Capacity of C.B.	
		(ii) Rate making Capacity of circuit breaker	7
	(B)	With neat diagram explain "The restriking and recovery Voltage" V	/hat are the
		factors affecting the same.	7
		OR	
	(B)	What are the different duties of circuit breaker. Explain any one.	7
Q.3		An air blast circuit breaker designed to interrupt a transformer mag	_
		current of 15 Amperes. (rms.) chops this current at its instantaneous	
		Amp. The values of L and C in the circuit are 8 H and 0.009 μF. Find	_
		that appear across the CB. Assume that the Inductive energy is trained	
		capacitance. OR	14
Q.3	(A)	Write short note on "arcing chamber" of MOCB.	7
კ .ა	(A) (B)	Sketch the methods of arc interruption in Airblast C.B.	7
	(D)	Sketch the methods of arc interruption in Airbiast C.B.	,
Q.4	(A)	Write technical note on Vacuum C.B.	7
	(B)	Explain resistance Switching in HV circuit breakers	7
		OR	
Q.4	(A)	What are the points of merits and demerits of SF ₆ gas to be used in	circuit
		Breaker.	7
	(B)	Give comparison of SF ₆ circuit breaker with air blast circuit breaker	•
			7

Q.5	(A)	With neat circuit diagram explain HVDC circuit breaker.	7
		(B) Explain Auto reclosing.	7
		OR	
Q.5	(A) Which are the different tests to be carried out on C.B. Expl		ne test.
			7
	(B)	With neat circuit diagram explain Direct Test on C.B. for its breaking	Capacity
			7
