## Paper / Subject Code: 89301 / Power System Protection & Switchgear

1T00836 - T.E.(Electiral Engineering)(SEM-VI)(Choice Base Credit Grading System ) (R-20-21) (C Scheme) / 89301 - Power System Protection & Switchgear

QP CODE: 10013552 DATE: 07/12/2022 (3 Hours) Total Marks: 80

N.B.:-	(1) Question No.1 is compulsory.	
	(2) Attempt any Three questions out of remaining Five questions.	D
	(3) Assume suitable data if necessary and justify the same.	
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Q 1.	Answer the following questions.	20
	A) Explain cut off characteristics of HRC fuse.	
	B) Explain current chopping phenomenon.	
	C) What is primary and backup protection?	
	D) Explain construction and working of Isolator	
Q 2 a)	Explain the working of induction disc relay with neat diagram.	10
Q 2 b)	Discuss various parameters of protective relay.	10
Q 3 a)	Explain with neat diagram the construction and working of SF <sub>6</sub> Circuit Breaker.	10
Q 3 b)	Explain resistance switching used in arc interruption.	10
Q 4 a)	Explain motor protection against single phasing with neat diagram.	10
Q 4 b)	Explain TRV and RRRV. Derive an expression for restriking voltage.	10
Q 5 a)	Explain the different Earth Fault Schemes and its application.	10
Q 5 b)	Explain current grading and time grading relay system of protection of feeder.	10
Q 6 a)	Compare static relays with electromagnetic relays.	10
Q 6 b)	Draw and explain operation of Oil Circuit Breaker.	10
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