U.S.N.										

B.M.S. College of Engineering, Bengaluru-560019

Autonomous Institute Affiliated to VTU

September / October 2023 Supplementary Examinations

Programme: B.E. **Semester: VI**

Branch: Electrical and Electronics Engineering **Duration: 3 hrs.**

Course Code: 19EE6PCPSP **Max Marks: 100**

Course: Power System Protection **Date: 21.09.2023**

Instructions: 1. Answer any FIVE full questions, choosing one full question from each unit.
2. Missing data, if any, may be suitably assumed.

UNIT - I

1	a)	With a neat sketch, explain the HRC fuse. With its advantages and dis advantages.	**10**
	b)	Elaborate the essential qualities of protective Relaying.	**10**

UNIT - II

2	a)	Give an outline on Slepian's theory and energy balance theory of are interruption.	**10**
	b)	With a neat sketch, elaborate the construction and working of non-puffer type SF_6 breaker.	**10**

UNIT - III

3	a)	Explain the construction and working of non-directional induction type overcurrent relay with neat sketch. Draws explain its time-current characteristics.	**10**
	b)	Explain Amplitude comparator with characteristics and necessary conditions.	**10**

OR

4	a)	Define phase comparator in static relays. Elaborate the two types of phase comparators.	**10**
	b)	Explain with neat sketch, the working of directional-Induction type over current relay.	**10**

UNIT - IV

5	a)	Give an outline on Bucholz's Relay with a neat sketch.	**10**
	b)	Elaborate the principles of 3 zones of protection for transmission lines.	**10**

OR

6	a)	Explain the construction, working and operating characteristics of reactance relay with neat sketch.	**10**
	b)	Discuss the various faults which occur in generators.	**10**

UNIT - V

7	a)	With a neat block diagram, elaborate digital relays. List its merits and demerits.	**10**
	b)	Explain the principle of adaptive relaying with neat diagram.	**10**

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