



ADMISSION NUMBER

School of University Polytechnic

Diploma in Electrical Engineering
Semester End Examination - Jul 2024

Duration : 180 Minutes
Max Marks : 100

Sem V - N1DI501T - Switchgear and Protection

General Instructions

Answer to the specific question asked

Draw neat, labelled diagrams wherever necessary

Approved data hand books are allowed subject to verification by the Invigilator

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| 1) | Identify and explain the various types of faults that can occur in power transformers and their consequences. | K1(2) |
| 2) | Discuss the characteristics and limitations of high-voltage (H.V.) fuses. | K2(4) |
| 3) | Discuss the importance of regular maintenance and testing of protective devices in a power system. | K2(6) |
| 4) | What are the criteria for choosing the appropriate type of protective gear for specific applications? | K3(9) |
| 5) | Discuss the grading and coordination of L.V. fuses for effective protection. | K3(9) |
| 6) | Discuss the methods used for winding temperature protection in power transformers. | K5(10) |
| 7) | Discuss the braking capacity of switches, and why is it essential in switchgear design. | K4(12) |
| 8) | Discuss the benefits and challenges of applying differential protection to feeders. | K5(15) |
| 9) | Compare different types of circuit breakers and their advantages over oil circuit breakers. | K5(15) |
| 10) | Discuss the reactors, and how are they classified? Describe the applications of bus bar, tuning, and arc-suppression reactors in power stations. | K6(18) |