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|  | **BALOCHISTAN UNIVERSITY OF ENGINEERING AND TECHNOLOGY KHUZDAR** |

DEPARTMENT: EED Examination**:** Final Term 2024

SUBJECT: Power System Protection EE-503

SEMESTER: M.E(3rd Semester) Max: Marks: 60

Time Allowed: 3:00 hours

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| **Q.NO** | **Description** | **Marks** |
| 1. | 1. Write the difference between Primary Protection and Back up Protection. 2. Mention the short comings of Merz Price protection scheme applied on a power transformer. | 12 |
| 2. | State and explain various types of earthing (Solid earthing, Resistance earthing, Reactance earthing, Voltage transformer earthing, and zig-zag transformer earthing) | 12 |
| 3. | A Y-connected load has balanced currents with abc sequence given by  Calculate the sequence currents (, , ) | 12 |
| 4. | Design Three-bus bar network for Gauss-Seidal load flow study purpose with its matrix equation. Also apply Gauss-Seidal approach up to 3 iterations to calculate the bus voltages. | 12 |
| 5. | a) Define Digital Relays, its classification, and Generation of Relays.  b) What is the function of Lightning Arrestor, discuss construction and advantages of Horn Gap Arrester. | 12 |

***THE END***