

**BALOCHISTAN UNIVERSITY OF ENGINEERING & TECHNOLOGY KHUZDAR**

DEPARTMENT: BMED EXAMINATION: Mid Term 2024

SUBJECT: Basic Electrical Engineering CODE NO: EE-120

SEMESTER: B.E (1st Semester) Max: Marks: 20

Time Allowed: 60 Minutes

Note: Attempt All questions

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| **Q.NO** | **Description** | **Marking Scheme** | **CLO/PLO** | **Bloom** |
| 1. | 1. **Define** Kirchhoff’s Law, Impedance, Inductive Reactance, Capacitive Reactance, and Power Triangle. | 05 | CLO-1  PLO-2 | C-3 |
| 1. Apply a Maximum Power Transfer Theorem to **calculate** maximum power in the Circuit given below. The Value of supply voltage Vs = 100 V, source resistance Rs = 25 ohm , when the value of variable load resistance RL = 0, 5, 10, 15, 20, 25, 30, 40, 60, and 100 volts. | 05 | CLO-1  PLO-1 | C-1 |
| 2. | 1. A series RLC circuit containing a resistance of 12Ω, an inductance of 0.15H and a capacitor of 100uF are connected in series across a 100V, 50Hz supply. **Calculate** the total circuit impedance, the circuit current, and power factor. | 05 | CLO-1  PLO-1 | C-1 |
| 1. Write Shor Note on the following: 2. Voltage Divider Rule and Current Divider Rule 3. Resistance and Conductance. 4. Charge, Voltage and Current 5. Resonance Circuit. 6. Power Factor. | 05 | CLO-1  PLO-1 | C-1 |

***THE END***