

Subject Code : 101 ▼

| Subject Code | Exam Date | Q Id | Questions | Answer Key |
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| 101 | 14-12-2021 | 1 | <p>Objects at the surface of water can be viewed from a submarine under water by using this instrument.</p> <p>(A) Stethoscope</p> <p>(B) Periscope</p> <p>(C) Kaleidoscope</p> <p>(D) Telescope</p> | (B) |
| 101 | 14-12-2021 | 2 | <p>The United Nations Organization has its Headquarters at</p> <p>(A) Bali</p> <p>(B) Hague</p> <p>(C) New York, USA</p> <p>(D) Washington DC</p> | (C) |
| 101 | 14-12-2021 | 3 | <p>Epsom (England) is the place associated with</p> <p>(A) Shooting</p> <p>(B) Horse racing</p> <p>(C) Polo</p> <p>(D) Snooker</p> | (B) |
| 101 | 14-12-2021 | 4 | <p>Usain Bolt is associated with which sport?</p> <p>(A) Gymnastics</p> <p>(B) Boxing</p> <p>(C) Canoe Sprint</p> <p>(D) Athletics</p> | (D) |
| 101 | 14-12-2021 | 5 | <p>The book 'Timeless Laxman' is based on life of which</p> | (D) |

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| | | | <p>of the following person?</p> <p>(A) O.P. Laxman</p> <p>(B) R.K. Narayan</p> <p>(C) V.V.S. Laxman</p> <p>(D) R.K. Laxman</p> | |
| 101 | 14-12-2021 | 6 | <p>Complete the sentence: The speaker pointed a ----- -- picture of hunger in parts of India.</p> <p>(A) chimerical</p> <p>(B) passionate</p> <p>(C) parisimonious</p> <p>(D) poignant</p> | (D) |
| 101 | 14-12-2021 | 7 | <p>Choose the correct meaning of proverb/idiom : To hit the nail right on the head</p> <p>(A) To do the right thing</p> <p>(B) To destroy one's reputation</p> <p>(C) To announce one's fixed views</p> <p>(D) To teach someone a lesson</p> | (A) |
| 101 | 14-12-2021 | 8 | <p>In a certain code, MONKEY is written as XDJMNL. Hoe is TIGER written in that code?</p> <p>(A) QDFHS</p> <p>(B) SDFHS</p> <p>(C) SHFDQ</p> <p>(D) UJHFS</p> | (A) |
| 101 | 14-12-2021 | 9 | <p>Choose the correct synonym of the given word: Rectify</p> <p>(A) To build</p> <p>(B) Correct</p> | (B) |

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| | | | (C) Destroy (D) To command | |
| 101 | 14-12-2021 | 10 | A gathering at a religious place (A) Mob (B) Audience (C) Congregation (D) Spectators | (C) |
| 101 | 14-12-2021 | 11 | In the series 2, 6, 18, 54, what will be the 8th term ? (A) 4370 (B) 4374 (C) 7443 (D) 7434 | (B) |
| 101 | 14-12-2021 | 12 | Introducing a woman, a man said “Her mother is the only daughter of my mother-in-law”. How is the man related to the woman ? (A) Son (B) Brother (C) Father (D) Husband | (C) |
| 101 | 14-12-2021 | 13 | One morning Udai and Vishal were talking to each other face to face at a crossing. If Vishal's shadow was exactly to the left of Udai, which direction was Udai facing? (A) East (B) West (C) North (D) South | (C) |

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| 101 | 14-12-2021 | 14 | Cloth : Mill :: Newspaper : ? (A) Editor (B) Reader (C) Paper (D) Press | (D) |
| 101 | 14-12-2021 | 15 | Find the one which does not belong to the group ? (A) 16 (B) 28 (C) 36 (D) 64 | (B) |
| 101 | 14-12-2021 | 16 | When n is divided by 6, the remainder is 4. When $2n$ is divided by 6, the remainder is : (A) 4 (B) 2 (C) 0 (D) 1 | (B) |
| 101 | 14-12-2021 | 17 | A certain number of tennis balls were purchased for Rs. 450. Five more balls could have been purchased in the same amount if each ball was cheaper by Rs. 15. The number of balls purchased was: (A) 10 (B) 15 (C) 20 (D) 25 | (A) |
| 101 | 14-12-2021 | 18 | How many seconds will a 500 metre long train take to cross a man walking with a speed of 3 km/hr in the direction of the moving train if the speed of the train is 63 km/hr? (A) 25 | (B) |

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| | | | <p>(B) 30</p> <p>(C) 40</p> <p>(D) 45</p> | |
| 101 | 14-12-2021 | 19 | <p>If Ram and Shyam together can build a house in 10 days; Ram and Arun can build it together in 12 days and Shyam and Arun can build it in 15 days. Shyam, Ram and Arun start working together. In how many days they build the house?</p> <p>(A) 6</p> <p>(B) 4</p> <p>(C) 8</p> <p>(D) 12</p> | (C) |
| 101 | 14-12-2021 | 20 | <p>The ratio of the present age of father to that of son is 7:2. After 10 years their ages will be in the ratio of 9:4. The present age of the father is</p> <p>(A) 35 years</p> <p>(B) 40 years</p> <p>(C) 30 years</p> <p>(D) 25 years</p> | (A) |
| 101 | 14-12-2021 | 21 | <p>Principle of dynamically induced emf is used in a</p> <p>(A) Choke</p> <p>(B) Transformer</p> <p>(C) Generator</p> <p>(D) Thermo-couple</p> | (C) |
| 101 | 14-12-2021 | 22 | <p>The direction of dynamically induced emf in a conductor can be determined by</p> <p>(A) Fleming's left-hand rule.</p> <p>(B) Fleming's right-hand rule.</p> | (B) |

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| | | | (C) Helix rule (D) Corkscrew rule | |
| 101 | 14-12-2021 | 23 | Magnitude of statically induced emf depends on the (A) Coil resistance (B) Flux magnitude (C) Rate of change of flux (D) None of these | (C) |
| 101 | 14-12-2021 | 24 | If the machines are running in synchronism and the voltage of one machine is suddenly increased (A) The machines will burn (B) Both machines will stop (C) Synchronising torque will be produced to restore further synchronism (D) None of these | (C) |
| 101 | 14-12-2021 | 25 | A distribution transformer usually is a (A) Star-delta transformer (B) Delta-star transformer (C) Star-star transformer (D) Delta-delta transformer | (B) |
| 101 | 14-12-2021 | 26 | A Voltmeter should have (A) Infinite resistance (B) Very high resistance (C) Low resistance (D) Zero resistance | (B) |
| 101 | 14-12-2021 | 27 | Difference between load factor and capacity factor is the indication of (A) Hot reserve | (C) |

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| | | | <p>(B) Cold reserve</p> <p>(C) Reserve capacity</p> <p>(D) Spinning reserve</p> | |
| 101 | 14-12-2021 | 28 | <p>Which of the following is minimized by laminating the core of a transformer</p> <p>(A) Hysteresis loss</p> <p>(B) Eddy current loss</p> <p>(C) Heat loss</p> <p>(D) All of these</p> | (B) |
| 101 | 14-12-2021 | 29 | <p>Main reason of drop due to armature reaction in a d.c. generator is</p> <p>(A) Armature flux due to armature current</p> <p>(B) Load current</p> <p>(C) Shunt and series field current</p> <p>(D) None of these</p> | (A) |
| 101 | 14-12-2021 | 30 | <p>The direction of rotation of a dc motor can be reversed by reversing the connection to</p> <p>(A) Armature</p> <p>(B) Series field</p> <p>(C) Shunt field</p> <p>(D) Any of these</p> | (A) |
| 101 | 14-12-2021 | 31 | <p>The starting resistance of a dc motor is usually</p> <p>(A) Infinitely large</p> <p>(B) Large</p> <p>(C) About 100Ω</p> <p>(D) Small</p> | (D) |

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| 101 | 14-12-2021 | 32 | <p>The power loss is important for the design of</p> <p>(A) Generator</p> <p>(B) Motor</p> <p>(C) Feeder</p> <p>(D) Transmission line</p> | (D) |
| 101 | 14-12-2021 | 33 | <p>The maximum load that a power transformer can carry is limited by its</p> <p>(A) Voltage ratio</p> <p>(B) Copper loss</p> <p>(C) Temperature noise</p> <p>(D) Dielectric strength of oil</p> | (A) |
| 101 | 14-12-2021 | 34 | <p>Advantage of slip ring induction motor over squirrel cage induction motor is</p> <p>(A) Suitability of high speeds</p> <p>(B) Higher efficiency</p> <p>(C) Higher power factor</p> <p>(D) That it can be started using factor resistance</p> | (D) |
| 101 | 14-12-2021 | 35 | <p>Voltage gradient is highest at the</p> <p>(A) Centre of the conductor</p> <p>(B) Surface of the conductor</p> <p>(C) 1/3 of the conductor</p> <p>(D) None of these</p> | (B) |
| 101 | 14-12-2021 | 36 | <p>The greatest eddy current loss occurs in -----part of the DC machine</p> <p>(A) Yoke</p> <p>(B) Armature</p> <p>(C) Field poles</p> | (B) |

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| | | | (D) Commutator | |
| 101 | 14-12-2021 | 37 | <p>When any one-phase of a 3-phase synchronous motor is short-circuited, the motor</p> <p>(A) Will overheat in the spot</p> <p>(B) Will fail to pull into step</p> <p>(C) Will refuse to start</p> <p>(D) Will not come upto speed</p> | (C) |
| 101 | 14-12-2021 | 38 | <p>DC motors are preferred for use in</p> <p>(A) Paper industry</p> <p>(B) Electric excavators, steel mills and cranes</p> <p>(C) Cranes only</p> <p>(D) Mills only</p> | (B) |
| 101 | 14-12-2021 | 39 | <p>The direction of rotation of a synchronous motor can be reversed by reversing</p> <p>(A) current to the field winding</p> <p>(B) supply phase sequence</p> <p>(C) Polarity of rotor poles</p> <p>(D) None of these</p> | (B) |
| 101 | 14-12-2021 | 40 | <p>In series parallel circuit, any two resistances in the same current path must be in</p> <p>(A) Series with each other</p> <p>(B) Parallel with each other</p> <p>(C) Series with the voltage sources</p> <p>(D) Parallel with the voltage sources</p> | (A) |
| 101 | 14-12-2021 | 41 | <p>220 V is the voltage of domestic supply. This figure represents</p> <p>(A) Mean value</p> | (B) |

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| | | | <p>(B) RMS value</p> <p>(C) Peak value</p> <p>(D) Average value</p> | |
| 101 | 14-12-2021 | 42 | <p>Permeability in a magnetic circuit corresponds to ----- in an electric circuit.</p> <p>(A) Resistance</p> <p>(B) Resistivity</p> <p>(C) Conductivity</p> <p>(D) Conductance</p> | (C) |
| 101 | 14-12-2021 | 43 | <p>Which of the following motor will have relatively higher power factor</p> <p>(A) Capacitor start motor</p> <p>(B) Capacitor run motor</p> <p>(C) Split phase motor</p> <p>(D) Shaded pole motor</p> | (B) |
| 101 | 14-12-2021 | 44 | <p>Which of the following is used to transform chemical energy into electrical energy</p> <p>(A) Photo cell</p> <p>(B) Electrolyte</p> <p>(C) Battery</p> <p>(D) Secondary cell</p> | (C) |
| 101 | 14-12-2021 | 45 | <p>The fault most likely to occur in cables</p> <p>(A) Short circuit fault</p> <p>(B) Open circuit fault</p> <p>(C) Cable insulation breakdown</p> <p>(D) All of these</p> | (D) |

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| 101 | 14-12-2021 | 46 | <p>For which of the following equipment current rating is not necessary?</p> <p>(A) Circuit Breakers</p> <p>(B) Isolators</p> <p>(C) Load break switches</p> <p>(D) All of these</p> | (B) |
| 101 | 14-12-2021 | 47 | <p>Breakdown of cable insulation may occur due to</p> <p>(A) Thermal instability</p> <p>(B) Puncture</p> <p>(C) Tracking</p> <p>(D) Any of these</p> | (D) |
| 101 | 14-12-2021 | 48 | <p>Electronic multimeter measures _____</p> <p>(A) voltage, current and resistance</p> <p>(B) voltage and current</p> <p>(C) current and power</p> <p>(D) energy and power</p> | (A) |
| 101 | 14-12-2021 | 49 | <p>With the increase in the intensity of light, the resistance of a photovoltaic cell</p> <p>(A) increases</p> <p>(B) decreases</p> <p>(C) remains same</p> <p>(D) None of these</p> | (B) |
| 101 | 14-12-2021 | 50 | <p>The primary reason for the low power factor is due to the installation of</p> <p>(A) Induction motors</p> <p>(B) DC motors</p> <p>(C) Synchronous motor</p> | (A) |

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| | | | (D) Commutator motor | |
| 101 | 14-12-2021 | 51 | <p>What is the purpose of back up protection?</p> <p>(A) To increase the speed</p> <p>(B) To increase the reach</p> <p>(C) To leave no blind spot</p> <p>(D) To guard against failure of primary protection</p> | (D) |
| 101 | 14-12-2021 | 52 | <p>When a PN junction diode is reverse biased</p> <p>(A) Electrons and holes are attracted towards each other and move towards the depletion region</p> <p>(B) Electrons and holes move away from the junction depletion region</p> <p>(C) Height of the potential barrier decreases</p> <p>(D) No change in the current takes place</p> | (B) |
| 101 | 14-12-2021 | 53 | <p>MICR stands for ____.</p> <p>(A) Magnetic indicator camera recorder</p> <p>(B) Memory induced card recognition</p> <p>(C) Magnetic ink chips recognition</p> <p>(D) Magnetic ink character recognition</p> | (D) |
| 101 | 14-12-2021 | 54 | <p>On unity power factor, the terminal voltage of an alternator is</p> <p>(A) Always greater than induced emf</p> <p>(B) Same as induced emf</p> <p>(C) Always less than induced emf</p> <p>(D) None of these</p> | (C) |
| 101 | 14-12-2021 | 55 | <p>Slip ring induction motor has</p> <p>(A) Low starting torque</p> | (C) |

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| | | | <p>(B) Medium starting torque</p> <p>(C) High starting torque</p> <p>(D) None of these</p> | |
| 101 | 14-12-2021 | 56 | <p>Superposition theorem can be applied only to circuits having</p> <p>(A) Passive elements</p> <p>(B) Active elements</p> <p>(C) Linear, bilateral elements</p> <p>(D) Linear, unilateral elements</p> | (C) |
| 101 | 14-12-2021 | 57 | <p>For maximum transfer of power, internal resistance of the source should be</p> <p>(A) Equal to load resistance</p> <p>(B) Less than the load resistance</p> <p>(C) Greater than the load resistance</p> <p>(D) As small as possible</p> | (A) |
| 101 | 14-12-2021 | 58 | <p>The ratio of intensity of magnetization to the magnetization force is known as</p> <p>(A) Flux density</p> <p>(B) Susceptibility</p> <p>(C) Relative permeability</p> <p>(D) Relative permittivity</p> | (B) |
| 101 | 14-12-2021 | 59 | <p>In the left hand rule, forefinger always represents</p> <p>(A) Voltage</p> <p>(B) Current</p> <p>(C) Magnetic field</p> <p>(D) Direction of force on the conductor</p> | (C) |
| 101 | 14-12-2021 | 60 | <p>The torque angle, in a synchronous motor, is the angle</p> | (C) |

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| | | | <p>between</p> <p>(A) Supply voltage and back emf</p> <p>(B) Magnetizing current and back emf</p> <p>(C) Rotating stator flux and rotor poles</p> <p>(D) None of these</p> | |
| 101 | 14-12-2021 | 61 | <p>An induction motor can run at synchronous speed when</p> <p>(A) It is run on load</p> <p>(B) It is run in reverse direction</p> <p>(C) It is run on voltage higher than the rated voltage</p> <p>(D) EMF is injected in the rotor circuit</p> | (D) |
| 101 | 14-12-2021 | 62 | <p>The torque of an induction motor is</p> <p>(A) Directly proportional to slip</p> <p>(B) Inversely proportional to slip</p> <p>(C) Proportional to the square of the slip</p> <p>(D) Inversely proportional to square of the slip</p> | (A) |
| 101 | 14-12-2021 | 63 | <p>The 'cogging' of an induction motor can be avoided by</p> <p>(A) Proper ventilation</p> <p>(B) Having unequal number of rotor slots and stator slots</p> <p>(C) Autotransformer starter</p> <p>(D) Using DOL starter</p> | (B) |
| 101 | 14-12-2021 | 64 | <p>In the transformer the function of a conservator is to</p> <p>(A) Provide fresh air for cooling the transformer</p> <p>(B) Supply cooling oil to transformer in time of need</p> <p>(C) Protect the transformer from damage when oil expands due to heating</p> | (C) |

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| | | | (D) None of these | |
| 101 | 14-12-2021 | 65 | <p>An open-circuit test on a transformer is conducted primarily to measure</p> <p>(A) Insulation resistance</p> <p>(B) Copper loss</p> <p>(C) Core loss</p> <p>(D) Total losses</p> | (C) |
| 101 | 14-12-2021 | 66 | <p>The speed of a squirrel-cage induction motor can be controlled by all of the following except</p> <p>(A) Changing supply frequency</p> <p>(B) Changing number of poles</p> <p>(C) Changing winding resistance</p> <p>(D) Reducing supply voltage</p> | (C) |
| 101 | 14-12-2021 | 67 | <p>Two transformers operating in parallel will share the load depending upon their</p> <p>(A) Per unit impedance</p> <p>(B) Efficiencies</p> <p>(C) Ratings</p> <p>(D) Leakage reactance</p> | (A) |
| 101 | 14-12-2021 | 68 | <p>Which of the following capacitors will have the least value of breakdown voltage?</p> <p>(A) Mica</p> <p>(B) Paper</p> <p>(C) Ceramic</p> <p>(D) Electrolytic</p> | (D) |
| 101 | 14-12-2021 | 69 | <p>The main reason for generation of harmonics in a transformer could be</p> | (B) |

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| | | | <p>(A) Fluctuating load</p> <p>(B) Saturation of core</p> <p>(C) Mechanical vibrations</p> <p>(D) Poor insulation</p> | |
| 101 | 14-12-2021 | 70 | <p>Sumpner's test is conducted on transformers to determine</p> <p>(A) Temperature rise</p> <p>(B) Stray losses</p> <p>(C) All-day efficiency</p> <p>(D) None of these</p> | (A) |