

The speed of the rotating magnetic field in an induction motor is known as the_____.

A. slip speed B. effective speed C. shaft speed D. synchronous speed

Ans. D

643. When the frequency of the rotor of an induction motor is small, it can be measured by_____. A. galvanometer B. d.c. moving coil milli-voltmeter C. d.c. moving coil ammeter D. a.c. voltmeter

Ans. B

644. The value of the capacitor in a capacitor start motor controls the_____. A. starting torque B. speed of the motor C. efficiency D. None of these Ans. A

645. In the below given torque/speed characteristics of an induction motor, stable region is _____. A. X B. Y C. Z D. W

Ans. D

646. Which of the following is most economical method for starting single-phase motor? A. Capacitor start method B. Split-phase method C. Induction-start method D. Resistance-start method Ans. A

647. What is the use of the circuit shown in the figure below? A. To reduce the starting current to a very low B. To achieve a smooth starting C. To attain a higher starting torque D. To attain a higher maximum torque Ans. B

648. Which of the following motors is represented by the characteristics curve shown below? A. D.C. shunt motor B. D.C. series motor C. D.C. compound motor D. Asynchronous motor Ans.

D 649. For a 100% efficient transformer, the primary winding has 1000 turns and the secondary 100 turns. If the power input to the above transformer is 1000 watts, the power output is_____. A. 1000 watts B. 100 watts C. 10 watts D. 10 kW Ans. A

650. What is the efficiency of transformer compared with that of electrical motors of the same power? A. Much smaller B. Somewhat smaller C. About same D. Much higher Ans. D

651. In a common emitter amplifier, the unbypassed emitter resistance provides _____. A. voltage-shunt feedback B. current series feedback C. negative-voltage feedback D. positive-current feedback Ans. C

652. Which input yields natural response? A. step input B. sinusoidal input C. impulse input D. ramp input Ans. C

653. The voltage of a circuit is measured by a voltmeter having input impedance comparable with the output impedance of the circuit thereby causing error in voltage measurement. This error may be called as_____

A. gross error B. random error C. error caused by misuse of instrument D. error caused by loading effect Ans. D

654. Which of the following options is an Active transducer? A. photo emissive cell B. photo voltaic cell C. selsyn D. photo emissive cell, photo voltaic cell and selsyn Ans. B

655. Un-bonded strain gauges are _____. A. exclusively used for transducer applications B. exclusively used for stress analysis C. used for unbounded strains only D. None of these Ans. A

656. Dynamometer type moving coil instruments are provided with _____. A. eddy current damping B. pneumatic damping C. fluid friction damping D. electrostatic damping Ans. B

657. Voltmeter is a galvanometer with _____. A. high resistance B. low resistance C. both low and high resistance D. uncertain resistance Ans. A

658. Strain gauge rosettes are used when _____. A. the direction of hoop stress is not known B. the direction of principal stress is not known C. the direction of principal stress is known D. the direction of longitudinal stress is not known Ans. B

659. The dead time of an instrument refers to _____. A. large change of input quantity for which there is no output. B. the time encountered when the instrument has to wait for some reactions to take place. C. the time before the instrument begins to response after the quantity has altered. D. retardation or delay in the response of an instrument to a change in the input signal. Ans.

C 660. One input terminal of high gain comparator circuit is grounded and a sinusoidal voltage is applied to the other input. The output of comparator will be _____. A. a sinusoidal B. a full rectified sinusoidal C. a half rectified sinusoidal D. a square wave Ans. D

661. A minimum-phase system with no zeros has a phase-angle of -270° at gain crossover frequency. The system is _____. A. stable B. unstable C. marginally stable D. conditionally stable Ans. B

662. Transfer function of a system is $G(s) = \frac{K}{s^2 + sT}$. This open-loop system is _____. A. stable B. unstable C. marginally stable D. conditionally stable Ans. B

663. In a closed-loop system in which the output is the speed of a motor, the output rate control can be used to _____. A. limit the speed of the motor B. limit the torque output of motor C. limit the acceleration of the motor D. reduce the damping of the system Ans. C

664. If an input signal with non-zero direct current (dc) component is applied to a low pass RC network, then dc component in the output signal will be _____. A. the same as that in the input B. less than that in the input C. more than that in the input D. zero Ans. A 665. An OP AMP has