

Mangalam Electricals.

1. An isolated synchronous generator with transient reactance equal to 0.1 pu on a 100MVA base is connected to the high voltage bus through a step up transformer of reactance 0.1 pu on a 100 MVA base. The fault level at the bus is :
(A) 1000 MVA (B) 500 MVA (C) 100 MVA (D) 50MVA
2. An amplifier circuit has an overall current gain of -100 and an input resistance of $10\text{K}\Omega$ with the load resistance of $1\text{K}\Omega$. The overall voltage gain of the amplifier is:
(A) 5dB (B) 10dB (C) 20dB (D) 40dB
3. A four bit modulo 16 ripple counter uses JK flip-flop. If the propagation delay of each flip-flop is 50ns, the maximum clock frequency that can be used is:
(A) 20MHz (B) 10 MHz (C) 5 MHz (D) 4 MHz
4. If the characteristic equation of a closed-loop system is $s^2 + 2s + 2 = 0$, then the system is :
(A) Over damped (B) Critically damped (C) Under damped (D) Un – damped
5. In a 400 kV power network, 360 kV is recorded at a 400 kV bus. The reactive power absorbed by a shunt reactor rated for 50 MVAR, 400 kV connected at the bus is :
(A) 61.73 MVAR (B) 55.56 MVAR (C) 45.0 MVAR (D) 40.5 MVAR
6. The magnitudes of the open circuit and short circuit input impedances of a transmission line are $100\ \Omega$ and $25\ \Omega$ respectively. The characteristic impedance of the line is :
50 Ω (C) 75 Ω (D) 100 Ω (A) 25 Ω (B)
7. Two parallel wires separated by a distance ' d ' are carrying a current ' I ' in the same direction. The magnetic field along a line parallel to these wires and midway between them :
(A) Depends upon I (B) Is zero (C) Depends upon d (D) Depends upon the permeability of medium between them
8. In the magnetising current component of the no-load current of an induction motor is much larger than that of a corresponding transformer because of :
(A) Additional friction and winding loss in motor (B) Different winding configuration on stator
(C) Increased flux requirement (D) An air gap in the magnetic circuit
9. A transformer designed for operation on 60 Hz supply is worked on 50Hz supply system without changing its voltage and current ratings. When compared with full load efficiency at 60 Hz, the transformer efficiency on full load at 50 Hz will:
(A) Increase marginally (B) Increase by a factor of 1.2 (C) Remain unaltered (D) Decrease Marginally
10. The hot resistance of the filament of a bulb is higher than the cold resistance because the temperature co-efficient of the filament is:
(A) Negative (B) Infinite (C) Zero (D) Positive
11. If the applied voltage of a certain transformer is increased by 50% and the frequency is reduced to 50% (assuming that the magnetic circuit remains unsaturated), the maximum core flux density will :
(A) Change to three times the original value (B) Change to 1.5 times the original value
(C) Change to 0.5 times as the original value (D) Remain the same as the original value
12. The power factor of a squirrel cage induction motor is
(A) low at light load only. (B) low at heavy load only. (C) low at light and heavy load both. (D) low at rated load only.
13. A two-winding single phase transformer has a voltage regulation of 4.5% at full-load and unity power-factor. At full-load and 0.80 power-factor lagging load the voltage regulation will be
(A) 4.5%. (B) less than 4.5%. (C) more than 4.5%. (D) 4.5% or more than 4.5%.
14. The eddy current loss in an a-c electric motor is 100 watts at 50 Hz. Its loss at 100Hz will be
(A) 25 watts (B) 59 watts (C) 100 watts (D) 400 watts
15. A 1.8°step, 4-phase stepper motor has a total of 40 teeth on 8 pole of stator. The number of rotor teeth for their rotor will be
(A) 40 (B) 50 (C) 100 (D) 80
16. A salient pole synchronous motor is running at no load. Its field current is switched off. The motor will
(A) come to stop. (B) continue to run at synchronous speed.
(C) continue to run at a speed slightly more than the synchronous speed. (D) continue to run at a speed slightly less than the synchronous speed.
17. For the equation, $s^3 - 4s^2 + s + 6 = 0$ the number of roots in the left half of s-plane will be
(A) One (B) Two (C) Three (D) Zero
18. HVDC Transmission is mainly used for
(A) transmission of Bulk power over a very long distance (B) inter-connecting two systems with same nominal frequency
(C) eliminating reactive power requirement in the operation (D) minimizing harmonics at the converter stations
19. Usually in a thermal power plant the amount of good quality coal required to Generate 1unit of energy is
(A) Less than 700 gm (B) Greater than 700 gm (C) Greater than 1kg (D) None of these.

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ANSWER THE BELOW QUESTION

Q1: What do I comprehend by sales and marketing?

Q2: Why do I intend to build a career in sales and marketing?

Q3: Why do I consider myself fit for sales and marketing job?