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1. Mho relay is usually employed for the protection of
a) Short lines only
b) Medium lines only
c) Long lines only
d) Any line
Ans: Long lines only

2. A modern power semiconductor device IGBT is combines the characteristics of
a) BJT and MOSFET
b) FCT and GTO
c) SCR and MOSFET
d) SCR and BJT
Ans: BJT and MOSFET

3. For a single-phase a.c. to d.c. controlled rectifier to operate in regenerative mode, which of the following conditions should be satisfied?
a) Half –controlled bridge, a < 90°, source of e.m.f. in load
b) Half-controlled bridge, a > 90°, source of e.m.f. in load
c) Full-controlled bridge, a > 90°, source of e.m.f. in load
d) Full-controlled bridge, a < 90°, source of e.m.f. in load
Ans: Full-controlled bridge, a > 90°, source of e.m.f. in load

4. Which is the most suitable power device for high frequency (more 100 kHz) switching application?
a) Power MOSFET
b) BJT
c) SCR
d) UJT
Ans: Power MOSFET

5. In a thyristor Latching current is _____ than Holding current
a) Equal
b) Less
c) Greater
d) None
Ans: Greater

6. The transfer function of a system is 10/(1+s) when operating as a unity feedback system, the steady state error to a step input will be
a) 0
b) 1/11
c) 10
d) Infinity
Ans: 1/11

7. Which one of the following statements for a dc machine which is provided with inter pole winding (IW) as well as compensating winding (CW) is correct
a) Both IW and CW are connected in series with Armature winding
b) Both IW and CW are connected in parallel with Armature winding

c) IW connected in series but CW is connected in parallel with Armature winding
d) CW connected in series but IW is connected in parallel with Armature winding
Ans: Both IW and CW are connected in series with Armature winding

8. A 0-10 mA PMMC ammeter reads 5mA in a circuit; its bottom control spring snaps out suddenly the meter will now read.
a) 5mA
b) 10mA
c) 2.5mA
d) 0
Ans: 0

9. A dc cumulatively compounded motor delivers rated load torque at rated speed. If series field is short circuited, then the armature current and speed will
a) Both increases
b) Both decreases
c) Increases and decreases
d) Decreases and increases
Ans: Both increases

10. Moving coil in dynamometer wattmeter connected
a) In series with fixed coil
b) Across supply
c) In series with load
d) Across load
Ans: Across supply

11. In an induction machine, if the air gap increased
a) Speed will be reduced
b) Efficiency will be improved
c) Power factor will be lowered
d) Breakdown torque will be reduced
Ans: Power factor will be lowered

12. A CRO screen has ten divisions on the horizontal scale. If a voltage signal 5 sin 314t+45 deg)is examined with a line base settings of 5 msec/div, the number of cycles of signal displayed on the screen will be
a) 0.5 cycles
b) 2.5 cycles
c) 5 cycles
d) 10 cycles
Ans: 2.5 cycles

13. A 3-phase 50HZ SCIM takes a power input of 30 KW at its full load speed of 1440 rpm. Total stator losses are 1 KW. The slip and rotor ohmic losses at full load are
a) 0.02, 600 W
b) 0.04, 580 W
c) 0.04, 1160 W
d) 0.04, 1200 W
Ans: 0.04, 1160 W

14. Thermocouple is used to measure
a) AC
b) DC
c) Both
d) None
Ans: Both

15. The two watt meters measurement the ratio of two meter readings is −(1-sqrt3):(1+sqrt3) then the power factor is
a) 1
b) 0.866
c) 0.707
d) 0
Ans: 0.707

16. Hays bridge is used to measure_____ and Schering bridge is used to measure_____
a) Inductance, Inductance
b) Inductance, Capacitance
c) Capacitance, Inductance
d) Resistance, Capacitance
Ans: Inductance, Capacitance

17. When sine wave is given as input to Schmitt trigger then its generates
a) Sine wave
b) Saw tooth wave
c) Triangle wave
d) Square wave
Ans: Square wave

18. In Gauss Seidel method the following factors are influenced for operation
a) Acceleration factor
b) Selection of slack buss
c) Both
d) None
Ans: Selection of slack buss*

19.
i. (X'+Y') A. Low-pass filter function
ii. (X'Y') B. Sum
iii. (XY) C. NAND
D. Carry
E.NOR

a) i-C, ii-E, iii-D
b) i-C, ii-E, iii-B
c) i-C, ii-B, iii-D
d) i-C, ii-E, iii-A

Ans: i-C, ii-E, iii-D

20. The phase lead compensation is used to
a) Increase rise time and decrease overshoot
b) Decrease both rise time and overshoot
c) Increase both rise time and overshoot
d) Decrease rise time and increase overshoot
Ans: Decrease rise time and increase overshoot

21. Voltage feed back amplifier is a
a) Shunt-Shunt
b) Shunt-Series
c) Series-Shunt
d) Series- Series
Ans: Shunt-Shunt

22. In microprocessor the next instruction to be executed is stored in
a) Program Counter
b) Stack Pointer