

HAL Sample Test Paper 2

1. When length of a wire increases its resistance

- a. doubles b. half c. remains same

Ans: (a)

2. When a 50 Hz ,6-pole Induction Motor runs at 975rpm,the rotor emf frequency is

- a. 12.5Hz b. 1.25Hz c. 4Hz

Ans: (b)

3. When a 6 pole 50Hz Induction Motor runs at 1450 rpm , it's working mode is

- a. motoring b. braking c. generating

Ans: (a)

4. Slips for Different modes of operation of Induction Motor are

answer: motoring - $0 < S < 1$,generating- $S < 0$,braking - $S > 1$

5. Damping ratio (ξ) is 0.75, natural frequency is 12 rad/s are given & asked to find peak time

6. In electro-dynamo-meter type wattmeter

- a. pressure coil is made fixed
b. current coil is made fixed
c. both the coils are made fixed

Ans: (a)

7. In flux meter control torque is produced by

- a. weights attached to it.
b. Springs
c. No control torque is there

Ans: (c)

8. One question regarding hot wire instrument

9. In MI meters deflecting torque is proportional to

- a. square of the current
b. square of the voltage

Ans: (a)

10. In 3- Φ system total power is given by

- a. $\sqrt{3}VLIL\cos \Phi$
b. $3VLIL\cos \Phi$
c. $VLIL\cos \Phi$

Ans: (a)

11. From supply one 3- Φ step-down transformer is drawing 10 A, the secondary current will be minimum when the transformer is

- a. star-delta
- b. delta-star
- c. delta-delta
- d. star-star

Ans: (b)

12. Transformer rating is expressed in

- a. KVA
- b. KVAR
- c. KW

Ans: (a)

13. Manganin is a

- a. Insulator
- b. Semi-conductor
- c. Alloy

14. Dual scope oscilloscope has

- a. two separate horizontal and two separate vertical plates
- b. one horizontal and two separate vertical plates
- c. two separate horizontal and one vertical plates
- d. one horizontal and one vertical plates

15. Standard Cell voltage is measured by

- a. MI meter
- b. MC meter
- c. Potentiometer

16. The input resistance of the CRO is of the order of

- a. tens of ohm
- b. mega ohm
- c. kilo ohm
- d. fraction of an ohm

Ans: (b)

17.Errors are introduced in Wheatstone bridge due to

- a. lead resistance
- b. contact resistance
- c. some thing is given
- d. all of the above

18.HRC fuse and circuit-breaker combination is used CB operates for

- a. low over-load currents
- b. high over-load currents
- c. combination is never used

19. $G(s) = K / s(s+5)(s+1)$ is given to find the value of K for stable operation

20.By increasing gain of the system root locus will

- a. moves away from poles
- b. moves away from zeros
- c. crosses imaginary axis

Ans: (a)

21.When the load current is high while measuring power using wattmeter

- a. current coil is connected near load
- b. pressure coil is connected near load

22. $C = 0.01\mu\text{F}$ and $L = 1\text{ mH}$ and current is 10 A and asked to find the voltage drop

23.Transmission line is terminated by R and no reflection is there , then the value of R is

Ans: 400 ohm

24.One question regarding shunt ohm-meter and seriea ohm-meter

25.Inverted V curves are drawn between _____

Ans: field current Vs power factor