**Subject –Unit 3 Power Quality Monitoring**

**MCQ**

1) Which one of the following device is used for improving the power factor

of the system?

a) Shunt reactor **b) Synchronous phase modifier**

c) Series reactor d) Asynchronous reactor

2) Shunt compensation in EHV line is resorted to \_\_\_\_.

a) Improve voltage profile **b) Reduce fault current**

c) Improve stability d) Increase current

3) The main reason for generation of harmonics in a transformer could be \_\_\_\_\_.

a) fluctuating load b) poor insulation

c) mechanical vibrations **d) saturation of core**

4) Which fractional pitch will eliminate the seventh harmonic from the

voltage waveform of an alternator?

a) 6/7 b) 7/8

c) 5/6 **d) None of the above**

5) What is the actuating quantity for the relays?

a) Magnitude b) Frequency

c) Phase angle **d) All of these**

6) Active filters are generally made up of \_\_\_\_\_\_.

a) L circuits b) RL circuits

c) RLC circuits **d) RC circuits**

7) Ability of circuit to respond to a certain frequency and discriminate against

all other frequencies is called \_\_\_\_\_\_.

a) Resonance b) Discrimination

c) Selectivity d) Quality

8) Harmonics cause which of the following \_\_\_\_\_\_\_\_.

a) All the Options are Correct b) Nuisance Tripping

c) Capacitor Failure d) Heating in windings

9) Voltage dips cannot be caused by which of the following \_\_\_\_\_\_\_.

a) Local and Remote faults b) Inductive Loading

c) Switching on of Large Loads d) Capacitive Switching

10) Which of the following is not considered as good power quality voltage?

a) Supplied at Constant Velocity

b) Having a Constant sine wave with fundamental component

c) Power Supply is more compared to demand

d) Has a constant RMS Value unchanged with time

11) Which one of the following cannot be possible with voltage surges?

a) Flicker in Incandescent Lamps

b) Tripping Of Sensitive Equipment

c) Damaging to insulation

d) Damage to electronic components

12) Which of the following is long-term (hours-long) voltage sags caused by

system overload?

a) Brown out b) Black out

c) Voltage surge d) Voltage dip

13) Which one of the following is waveform distortion?

a) Notching b) Electrical noise

c) All the options are correct d) DC offset

14) Continuous and rapid variations in the load current magnitude which

causes voltage variations.

a) Flicker b) Voltage distortion

c) Harmonics d) Voltage sag

14. Lightning is a potent source of \_\_\_\_\_\_\_\_\_\_.  
(A) Low frequency transients  
(B) High frequency transients or Impulsive transients  
(C) Oscillatory transients  
(D) None of the above

Answer

Correct option is B

15. Transformer draw \_\_\_\_ currents, when switched ON, that range between \_\_\_\_\_\_ times their normal full-load current.  
(A) surge, 10 to 15  
(B) inrush, 10 to 15  
(C) surge, 1 to 10  
(D) None of the above

Answer

Correct option is B

16. Devices which draw inrush currents, when switched ON.  
(A) Transformer  
(B) Fluorescent lights  
(C) Both  
(D) None of the above

Answer

Correct option is C

17. AC motors draw starting currents that vary between \_\_\_\_\_\_ of the normal full-load running current.  
(A) 10 to 15 %  
(B) 1 to 10 %  
(C) 500 to 600 %  
(D) 10 to 100 %

Answer

Correct option is C

18. Capacitor are used to provide \_\_\_\_\_ power to correct the power factor, which reduces losses and supports the voltage on the system.  
(A) apparent  
(B) reactive  
(C) both  
(D) none of the above

Answer

Correct option is B

19. Advantages of using capacitor bank in a power system.  
(A) Losses are low in static capacitors  
(B) Do not require a foundation for installation  
(C) They are light weight so it can be easily installed  
(D) All of the above

Answer

Correct option is D

20. Full form of PIV.  
(A) Peak Inverse Voltage  
(B) Peak Inrush Voltage  
(C) Power Inverse Current  
(D) None of these

Answer

Correct option is A

21. Full form of SCR.  
(A) Silicon Correction Rectifier  
(B) Silicon Controlled Rectifier  
(C) Silicon Connected Rectifier  
(D) None of these

Answer

Correct option is B

22. Devices used for overvoltage protection  
(A) Isolation transformer  
(B) Surge arrestor  
(C) Clamping devices  
(D) All of the above

Answer

Correct option is D

23. Crowbar devices are normally \_\_\_\_\_\_\_ devices which conduct during overvoltage transients.  
(A) closed  
(B) open  
(C) None of these

Answer

Correct option is B

24. Clamping devices for AC circuits are commonly \_\_\_\_\_\_ resistors.  
(A) linear  
(B) non-linear  
(C) None of these

Answer

Correct option is B

25. The fundamental principles of over voltage protection of load equipment are  
(A) Limit the voltage across sensitive insulation  
(B) Divert the surge current away from the load  
(C) Bond ground references together at the equipment  
(D) All of the above

Answer

Correct option is D

26. Full form of TVSS.  
(A) Transient Voltage Surge Suppressors  
(B) Transient Voltage Supply Suppressors  
(C) Transient Voltage Surge Supply  
(D) None of the above

Answer

Correct option is A

27. Strategies for utilities to decrease the impact of lightning  
(A) Shielding  
(B) Line arrestors  
(C) Low side surges  
(D) All of the above

Answer

Correct option is D

28. Full form of ASD.  
(A) Adjustable Speed Drives  
(B) Apparent Speed Drives  
(C) Adjustable Supply Drives  
(D) Adjustable Source Drives

Answer

Correct option is A