

**Department of EEE****EE 8602 – Protection and Switchgear****Unit I - MCQ Bank**

1. A single phasing relay can be used with

- a)  $1\phi$  motor
- b)  $2^r\phi$  motor
- c)  $3\phi$  motor
- d) All of these**

Ans: (c)

2. A relay is used to

- a) Break the fault current
- b) Sense the fault
- c) Sense the fault and direct to trip the circuit breaker**
- d) All of these

Ans: (c)

3. In impedance relay, current element torque should be

- a) Equal to voltage element torque**
- b) Greater than voltage element torque
- c) Less than voltage element torque
- d) None of these

Ans: (a)

4. Over current fault is most likely in

- a) Transformer
- b) Overhead line equipment**
- c) Alternator
- d) Motors

Ans: (b)

5. Plug setting of a relay can be changed by changing

- a) Air gap
- b) Back up stop
- c) Number of ampere turns**
- d) All of these

Ans: (c)

6. Distance relays are generally

- a) Impedance type
- b) MHO type**
- c) Reactance type
- d) All of these

Ans: (b)

7. Buchholz relay is used to protect against

- a) Inter-turn fault
- b) External faults
- c) Rotor faults
- d) Every internal faults**

Ans: (d)

8. Instantaneous relay should operate within

- a) 0.0001 sec
- b) 0.001 sec
- c) 0.01 sec**
- d) 0.1 sec

Ans: (c)

9. MHO relay is inherently a

- a) Directional type**
- b) Non-directional type
- c) Unidirectional type
- d) None of these

Ans: (a)

10. Basic relay connection requirement is that the relay must operate for

a) Load

**b) Internal faults**

c) Both (a) and (b)

d) None of these

Ans: (b)

11. An impedance relay is used for

a) Earth faults

b) Interphase faults

**c) Both (a) and (b)**

d) None of these

Ans: (c)

12. Relay gets its operating energy from

a) Transformer

b) Alternator

c) Overhead lines

**d) C.T., P.T.**

Ans: (d)

13. Good relay should possess

a) Speed & reliability

b) Speed & sensitivity

c) Adequateness & selectivity

**d) All of these**

Ans: (d)

14. Earthing transformer is used to

a) Improve neutral wire's current capacity

b) Avoid overheating of transformer

**c) Provide artificial earthing**

d) Avoid harmonics

Ans: (c)

15. Percentage differential protection is used to prevent against

a) Inter-turn faults

b) Heavy Loads

c) External Faults

**d) Magnetizing current**

Ans: (d)

16. Back up protection is needed for

a) Over voltage

**b) Short circuits**

c) Over current

d) All of these

Ans: (b)

17. An instantaneous relay is

**a) Permanent moving magnet**

b) Induction cup

c) Shaded pole

d) Moving coil

Ans: (a)

18. Relays for transmission line protection are

**a) In three zones**

b) In two zones

c) Independent of zone

d) None of these

Ans: (a)

19. Induction cup relays responds to

a) Current

b) Power

c) Voltage

**d) Impedance**

Ans: (d)

20. Split-phase relay responds to

- a) Over load faults
- b) Over voltage

**c) Inter turn faults**

- d) All of these

Ans: (c)

21. Time classification of relays includes

- a) Instantaneous relays
- b) Definite time lag
- c) Inverse time lag

**d) All of these**

Ans: (d)

22. Directional relays responds to

- a) Power**
- b) Voltage
- c) Current
- d) Reactance

Ans: (a)

23. Single phase preventers are used for

- a) Transmission lines
- b) Transformers
- c) Motors**
- d) Underground cables

Ans: (c)

24. In carrier current protection, wave trap is used is for trapping

- a) High frequency waves entering in generating units**
- b) Power frequency waves
- c) Both (a) and (b)

d) None of these

Ans: (a)

25. Operating current in relay is

a) A.c. only

b) D.c. only

**c) Both (a) and (b)**

d) None of these

Ans: (c)

26. For phase fault on long line, which relay is used?

a) MHO relays

b) Reactance relays

**c) Impedance relays**

d) All of these

Ans: (c)

27. For motor protection, which relay is used?

a) Thermocouple type relays

b) Bimetallic relays

c) Electronic relays

**d) All of these**

Ans: (d)

28. For protection against synchronizing power surges, which relay is used?

a) Split-phase relays

b) Impedance relays

c) Reactance relays

**d) MHO relays**

Ans: (d)

29. Pilot wire protection is for

**a) Overhead lines**

b) Transformer

c) Motors

d) Cables

Ans: (a)

30. Under voltage relays are used for

a) Motors

b) Alternators

c) Bus bars

**d) All of these**

Ans: (d)

31. In an impedance relay, fault current is maximum if fault occurs near the

**a) Relay**

b) Center of the line

c) Transformer

d) None of these

Ans: (a)

32. More faults occur in

a) Generators

b) Under ground cables

c) Transformers

**d) Over head lines**

Ans: (d)

33. Actual tripping of a static relay is obtained by

a) SCR

b) Thyristors

c) UJT

**d) None of these**

Ans: (d)

34. Instantaneous relay is

**a) Hinged armature type**

b) Polarized type

c) Balanced beam type

d) All of these

Ans: (a)

35. It is possible to work on ungrounded systems of 11 kV for a length of

a) 10 Kms

b) 50 Kms

c) 90 kms

**d) 110 Kms**

Ans: (d)

36. Advantage of grounded neutral is

a) Persistent arcing grounds are eliminated

b) Earth fault are utilized to disconnect the fault

**c) Both (a) and (b)**

d) None of these

Ans: (c)

37. Neutral can be grounded by

a) Solid grounding

b) Resistance grounding

c) Reactance grounding

**d) All of these**

Ans: (d)

38. Thyrite is used in lightning arrestors because of its

a) Straight line characteristic

**b) Non-linear characteristic**

c) None of these

d) All of these

Ans: (b)

39. Location of lightning arrester is

a) After the transformer

b) After the distributor

**c) Before the transformer**

d) None of these

Ans: (c)

40. Lightning arrestors are

a) Surge reflectors

**b) Surge divertors**

c) Surge absorbers

d) Surge attenuators

Ans: (b)

41. Relays for transmission line protection are

**a) In three zones**

b) In two zones

c) Independent of zone

d) None of these

Ans: (a)

42. Fusing factor should be

a) Equal to zero

b) Less than one

c) Equal to one

**d) More than one**

Ans: (d)

43. Fuse wire should possess

a) High specific resistance and high melting point

b) High specific resistance and low melting point

c) Low specific resistance and low melting point

**d) Low specific resistance and high melting point**

Ans: (d)

44. If strands are twisted, then fusing current will

a) Increase

**b) Reduce**

- c) Remain same
- d) May increase or decrease

Ans: (b)

45. Fusing factor is defined as the ratio between

- a) Maximum fusing current and rated voltage
- b) Maximum fusing current and rated current
- c) Minimum fusing current and rated current**
- d) Minimum fusing current and rated voltage

Ans: (c)

46. Fuses can serve upto a current of

- a) 25 A
- b) 50 A
- c) 75 A
- d) 100 A**

Ans: (d)

47. Cut-off current in a fuse is the

- a) Maximum value actually reached**
- b) R.m.s. value actually reached
- c) Average value actually reached
- d) None of these

Ans: (a)

48. Best practicable material for a fuse wires is

- a) Aluminium
- b) Copper**
- c) Iron
- d) Tin

Ans: (b)

49. H.R.C. fuses has

- a) High rating of current
- b) High rupturing capacity**

- c) High resistance capacity
- d) None of these

Ans: (b)

50. Cartridge type fuse can be used upto a voltage of

- a) 400 V
- b) 11 kV
- c) 20 kV
- d) 33 kV**

Ans: (d)

51. Liquid type H.R.C. fuses are used upto a voltage of

- a) 33 kV
- b) 66 kV
- c) 132 kV**
- d) 200 kV

Ans: (c)

52. Selection of fuse is based on

- a) Steady load
- b) Fluctuating load
- c) A & b**
- d) None of these

Ans: (c)