1. The speed of a universal motor is generally reduced by using
a) gear trains   b) V-belts   c) Brakes   d) chains

2. The efficiency of two identical transformers under load conditions can be determined by
a) Short-circuit test   b) back-to-back test   c) Open circuit test   d) any of the above

3. Superposition theorem can be applied only to circuits having
a) Resistive elements   b) Passive elements
c) Non-linear elements   d) linear bilateral elements

4. A star circuit has element of resistance R/2. The equivalent delta elements will be
a) R/6   b) fi   c) 2R   d) 4R

5. An Ideal Voltage source has
a) Zero internal resistance   b) Open circuit voltage equal to the voltage on full load
c) Terminal voltage in proportion to current   d) Terminal Voltage in Proportion to load

6. In repulsion motor direction of rotation of motor
a) is opposite to that of brush shift   b) is the same as that of brush shift
c) is independent of brush shift   d) none of the above

7. Burning out of windings is due to
a) Short circuited capacitor   b) capacitor value hiving changed
c) Open circuiting of capacitor   d) none of the above

8. For which of the following equipment current rating is not necessary?
a) Circuit breakers   b) Isolators
c) Load break switch   d) Circuit breakers and load break switches

9. A conductor of length L has current I passing through it, when it is placed parallel to a magnetic field.
The force experienced by the conductor will be
a) Zero   b) BLI   c) B2LI   d) BLI2

10. Addition of pentavalent impurity to a semiconductor creates many
a) Free electrons   b) Holes
c) Valence Electrons   d) Bound electrons

11. Which of the following materials is not used for transmission and distribution of electrical power?
a) Copper   b) Aluminum   c) Steel   d) Tungsten

12. When a step-input is given to an op-amp integrator, the output will be
a) A ramp   b) A sinusoidal wave
c) A rectangular wave   d) A triangular wave with dc bias

13. Excess-3 code is known as
a) Weighted code   b) Cyclic redundancy code
c) Self-complementing code   d) Algebraic code

14. Electro-mechanical voltage regulators are generally used in
a) Reactors   b) generators

EEE

15. A rotary converter operates at a
a) Low power factor   b) High power factor
c) Zero power factor   d) none of the above

16. Light duty cranes are used in which of the following?
a) Power houses   b) Pumping stations
c) Automobile workshops   d) All of the above

17. Magnetic circuit breaker has _____ trip action.
a) Delayed   b) Instantaneous   c) Both a & b   d) None of the above

18. A power transformer is usually rated in
a) KW   b) KVAR   c) KWh   d) KVA

19. Submarines for under water movement, are powered by which of the following?
a) Steam accumulators   b) Air motors
c) Diesel engines   d) Batteries

20. The upper or lower cut off frequency is also called _____ frequency
a) Resonant   b) Sideband   c) 3db   d) None of the above

21. When the load resistance equals the generator resistance which of the following will be maximum?
a) Current   b) Efficiency of the circuit
c) Power in the load resistance   d) Voltage across the load resistance

22. The transformer laminations are insulated from each other by
a) Mica strip   b) thin coat of varnish
c) Paper   d) any of the above

23. The output voltage of a charger is
a) Less than the battery voltage   b) Higher than the battery voltage
c) The same as the battery voltage   d) none of the above

24. Calculate the cutoff frequency of a first order low-pass filter for R1=2.5Kohm and C1=0.05microFarad
a) 1.273 kHz   b) 12.73 kHz   c) 127.3 kHz   d) 127.3Hz

25. Admittance relay is _____relay.
a) Impedance   b) Directional
c) Non-directional   d) None of the above

26. Minimum voltage regulation occurs when the power factor of the load is
a) Unity   b) lagging   c) Leading   d) zero

27. Which of the following materials are diamagnetic?
a) Silver   b) Copper   c) Silver and Copper   d) Iron

28. To limit short- circuit current in a power system are used.

a) Earth wires   b) Reactors   c) H.R.C. fuses   d) Isolators

29. Which plant can never have 100 percent load factor?
a) Base load plant   b) Peak load plant
c) Nuclear power plant   d) Hydro electric plant

30. If the supply voltage for a D.C. motor is increased, which of the following will decrease ?
a) Starting torque   b) Operating speed
c) Full-load current   d) All of the above

31. The leakage current across a pn junction is due to
a) Minority carriers   b) Majority carriers
c) Junction capacitance   d) none of the above

32. The advantage of cables over overhead transmission lines is
a) Easy maintenance   b) low cost
 c) Can be used in congested areas   d) can be used in high voltage circuits

33. Usually wide and sensitive speed control is desired in case of
a) Centrifugal pumps   b) elevators
c) Steel rolling mills   d) colliery winders

34. India's first nuclear power plant was installed at
a) Tarapore   b) Kota   c) Kalpakam   d) None of the above

35. In a commutator
a) Mica is harder than copper   b) mica and copper are equally hard
c) copper is harder than mica   d) none of the above

36.What least value should be replaced by * in 223*431 so the number become divisible by 9
a) 6   b) 4   c) 5   d) 3

37. A number when divided by the sum of 555 and 445 gives two times their difference as quotient and 30 as remainder. The number is
a) 220030   b) 22030   c) 23030   d) 24030

38.In a group of ducks and buffaloes, the total number of legs is 24 more than twice the number of heads. Find the total number of buffaloes.
a)8   b) 10   c) 14   d) 12

39.How many seconds will a 500 meter long train take to cross a man walking with a speed of 3 km/hr in the direction of the moving train if the speed of the train is 63 km/hr
a) 25 Seconds   b) 30 Seconds   c) 28 Seconds   d) 35 Seconds

40.a * b = 2a - 3b + ab, then 3*5 + 5*3 = ?
a) 22   b) 21   c) 20   d) 23

41. Food : Stomach : : Fuel : _____?
a) Plane   b) Truck   c) Engine   d) Automobile

42. SUGARCANE, COFFEE, TOBACCO, RICE
 a) SUGARCANE   b) COFFEE   c) TOBACCO   d) RICE

43. If PRIVATE is coded as 1234567 and RISK is coded as 2398, how is RIVETS coded?
a) 232679   b) 243769   c) 234769   d) 234976

44.EJO, TYD, INS, XCH?
a) NRW   b) MRW   c) MSX   d) NSX

45._ nmmn _ mmnn _ mnnm _
a) nmmn   b) mnnm   c) nnmm   d) nmnm

46.A girl introduced a boy as the son of the daughter of the father of her uncle. The boy is girl's
a) Uncle   b) Nephew   c) Brother   d) Son

47. According to a military code, SYSTEM is SYSMET and NEARER is AENRER What is the code for FRACTION?
a) CARFTINO   b) CARFNOIT   c) FRACNOIT   d) CARFTION

48.Jungle : Zoo : : Sea : ?
a) Aquarium   b) Harbour   c) Water   d) Fishery

49. The child jumped _____ to catch the ball.
a) Above   b) up   c) By   d) at

50. How soon _____ the party begin?
a) Is   b) will   c) was   d) none