1. One of the standardised instructions for output of logic line "OUT" is used _____.

A. to reset instruction for flip flops

B. to output a flip flop

C. to output a relay

D. to denote the set

2. Which of the following sector encourage small scale entrepreneurship and has minimum hurdles to market entry?

A. Services.

B. Agriculture.

C. Industry sector.

D. Manufacturing.

3. Which of the following is NOT an advantage of relays?

A. Relays can switch high voltages.

B. Relays use less power due to the current flowing through their coil.

C. Relays can switch many contacts at once.

D. Relays can switch AC and DC

4. When two phase wires or one phase wire and the neutral wire make direct contact due to insulation breakdown, an exceedingly large current will flow in the circuit. This condition is called:

A. short circuit

B. electric shock

C. overload current

D. earth fault

5. Which of the following parameters does NOT depend upon material used and physical dimensions of the conductor?

A. Resistance

B. Shunt conductance

C. Inductance

D. Capacitance

6. Which of the following safety and monitoring devices is NOT provided to a power transformer as a safety instrument?

A. Pressure/vacuum switch

B. Dielectric gauge

C. Gas temperature indicator

D. Fluid level gauge

7. Select the correct statement for DC ceiling fans.

A. DC motor fans have less speed options than AC motor fans.

B. DC motor fans use more energy than standard AC fans.

C. DC fans are less efficient than AC fans.

D. DC motor fans are less noisy.

8. _____ was based upon the idea that the conduction of electric and thermal current in metals is by electrons.

A. Sommerfeld theory

B. Cohesive theory of forces

C. Drude theory

D. Zone theory of solids

9. Which is the correct formula for the efficiency of a short transmission line (η%)

A. η % = (Power supplied / Power exhausted × 100)

B. η% = (Power exhausted / Power delivered × 100)

C. η% = (Power delivered / Power supplied × 100)

D. η% = (Power supplied/ Power delivered × 100)

10. Which of the following is an INCORRECT type of chopper?

A. Parallel capacitor turn-off chopper

B. Series turn-off chopper

C. Series-SCR chopper

D. Morgan chopper

11. Which of the following HMI component includes Visual display units, alphanumeric keyboard, cursor etc?

A. Mimic diagram

B. Peripheral devices

C. Operator console

D. Operator dialogue

12. Which of the following is NOT one of the tips/methods while using washing machine to save energy?

A. Use the correct amount of detergent.

B. Never wash with full loads.

C. Use hot water only for very dirty clothes.

D. Use optimal quantity of water.

13. Which of the following is NOT the salient feature of thermistors?

A. Thermistors are compact.

B. Thermistors are smooth.

C. Thermistors when properly aged, have good stability.

D. Thermistors are inexpensive.

14. Which of the following insulating materials is NOT used for cables?

A. Polyvinyl Chloride

B. Paper

C. Polyurethane

D. Vulcanized India Rubber

15. Barbed wire is wrapped on poles at a height of about 2.5 m from the ground for at least 1 metre. The above statement is true for:

A. pro-danger sign boards

B. danger sign boards

C. anticlimbing devices

D. guys (stays) and the associated arrangement

16. Which of the following is the fastest of all saturated logic families? It is also used in SSI and MSI ICs.

A. RTL

B. I^2L

C. TTL

D. DCTL

17. Which of the following statements is correct for the electrical conducting material, Tungsten?

A. It has the lowest resistance per unit weight.

B. It has the highest melting point among metals.

C. It has the lowest resistance per unit volume.

D. Its melting point is 657°C (pure)

18. The main drawback of _____ is that the accuracy in determining the mechanical power output of the DC motor is limited.

A. Hopkinson's test

B. direct method of testing

C. Swinburne's test

D. indirect method of testing

20. Which of the following is also used as synonym for 'off the shelf'?

A. Out of the box thinking

B. Innovation head

C. Brainstorming

D. Mind mapping

21. Insulating material, cotton or oiled cambric tapes, are used for which part of machines?

A. For insulating terminals of high-voltage machines

B. Insulation of commutators

C. Taping armature and field coils of traction motor stator coils of high-voltage alternators

D. Rectangular conductors such as used in large D.C. machines

22. Which of the following is NOT an advantage of 'digital tape recording'?

A. A low quality of tape and tape transport mechanism is required

B. High accuracy

C. Insensitivity of tape speed

D. Use of simple conditioning equipment

23. 'Phase transformation ratio is x : 1, the line transformation ratio is:

$\sqrt{3}x : \frac{3}{2}$

The given statement is true for:

A. Delta/Star connection

B. Delta/zig-zag star connection

C. Star/zig-zag star connection

D. Star/Star connection

24. _____ is a device that closes its contacts when operating quantity reaches certain predetermined magnitude. Closing of relay contacts initiates an alarm circuit.

A. Auxiliary relay

B. All-or-nothing relay

C. Protective relay

D. Measuring relay

25. If the power factor is _____, the voltage at the sending end is less than that at the receiving end in short line. Hence voltage regulation is negative.

A. lagging

B. leading

C. unity

D. zero

26. Which of the following is also known as 'quasi wave inverter'?

A. Square wave inverter

B. Sine wave inverter

C. Modified sine wave inverter

D. Direct wave inverter

27. Which is not most commonly used display in the digital electronics field?

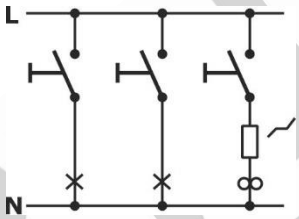
A. Incandescent display

B. Micro-phoretic image display

C. Liquid vapour display

D. Gas discharge plasma display

28. The below given diagram is an example of



A. Intermediate diagram.

B. Outlet diagram.

C. Schematic diagram.

D. Multiline wiring diagram

29. The rectifier that uses only diodes and the DC output voltage is fixed in amplitude by the amplitude of the AC supply is known as:

A. fully controlled rectifier

B. percent controlled rectifier

C. half controlled rectifier

D. uncontrolled rectifier

30. Which of the following materials is NOT employed for transmission lines?

A. Steel core copper

B. Copper weld materials

C. Carbon core tantalum

D. Galvanized iron

31. With regard to the Energy Conservation Act, 2001, the full form of B.E.E. is:

A. Bold and Efficient Energy

B. Branch of Energy Efficiency

C. Board of Energy Efficiency

D. Bureau of Energy Efficiency

32. In a D.C. motor, _____ is also known as electrical characteristics.

A. Torque-Flux characteristics.

B. Speed-Armature current characteristics.

C. Speed-Torque characteristics

D. Torque-Armature current characteristics

33. The transmission, which uses a 3 phase 3 wire mechanism, is called high voltage transmission. This

What else is the transmission system called?

A. Eliminative transmission

B. Secondary transmission

C. Feeder transmission

D. Primary transmission

34. Which of the following statements is not included in the pre-monsoon inspection of overhead lines?

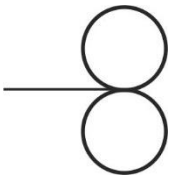
A. The vertical wires should be properly aligned.

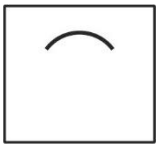
B. Bending pillars should be fixed.

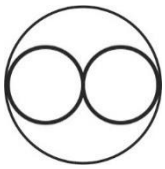
C. Diffraction of lines should be maximized.

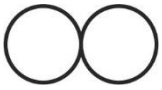
D. EarthHing should be checked.

35. Which of the following symbols belongs to bracket fan?

A. 

B. 

C. 

D. 

36. Which of the following is NOT a disadvantage of EHV lines?

A. Over voltage problem due to switching surge.

B. Generation and distribution of power is in AC only.

C. Corona problems increase in the voltage gradient.

D. Insulation coordination based upon switching impulse level.

37. Which of the following is NOT a semiconductor?

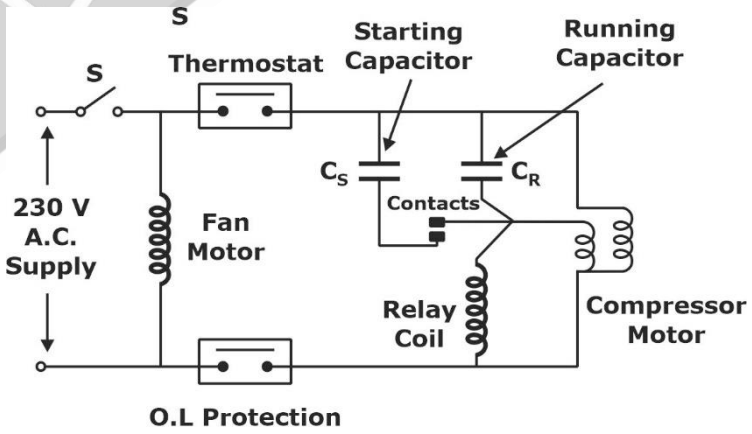
A. Micanite

B. Arsenic

C. Antinomy

D. Silicon

38. The given electrical circuit belongs to:



A. Water cooler

B. Air conditioner

C. Does not belong to any domestic appliance

D. Refrigerator

39. _____ is NOT a type of passive transducer.

A. Thermocouple transducer

B. Inductive transducer

C. Capacitive transducer

D. Resistive transducer

40. Which of the following is NOT one of the advantages of thermal power plants?

A. Rapidly changing load without any difficulty.

B. Operating cost is low as compared to nuclear and hydro-electric power plants.

C. Require less space compared to hydro-electric plants.

D. Fuel used is mainly coal, which is quite inexpensive.

41. Figure-out the INCORRECT type of mode used in distributed control system from the options given below:

A. Auto.

B. Computer mode.

C. Semi-Automatic.

D. Manual.

42. Which of the following is NOT one of the categories of copper loss in a DC machine?

A. Brush contact resistance loss

B. Armature loss

C. Eddy current loss

D. Field winding loss

43. Effect of capacitance on performance of the short transmission lines is extremely small due to _____

A. Low Operating voltage and high charging current.

B. Smaller length and high operating voltage.

C. Low Operating voltage and smaller length.

D. Larger length and low operating voltage.

44. _____ are used to detect the occurrence of external events. It is a retentive type of instruction and can be reset to zero using the reset (RES) instruction.

A. Bit instructions

B. Base instructions

C. Call instructions

D. Counter instructions

45. Which of the following is NOT an advantage of nuclear power plants?

A. It needs less space as compared to other conventional power plants of equal size.

B. They give better performance at high load factors (80 percent to 90 percent)

C. They are well suited to meet large power demands.

D. These plants can be operated at varying load efficiently

46. Which of the following methods requires use of peripheral components?

A. External control of DC output voltage

B. Internal control of inverter

C. External control of DC input voltage

D. Internal control of AC output voltage

47. _____ is the mean square deviation, which is the same as 'Standard Deviation', except that square root is NOT extracted.

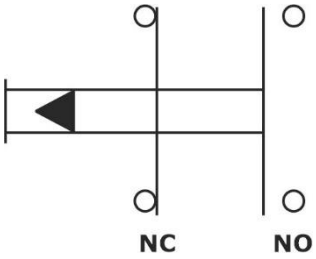
A. Variance

B. Precision index

C. Range

D. Average deviation

48. The above figure about a push button is:



A. A photographic view of push-button.

B. A symbol of push button with 1 NO and 1 NC contact.

C. A multiline diagram of push button.

D. A push button is shown in pressed condition with its NC contact becoming open and NO contact becoming close.

49. Which of the following stages/steps is NOT involved in handling the coal in a steam power plant?

A. Washing

B. Furnace firing

C. Coal delivery

D. Transfer

50. Which of the following is NOT one of the reason EHV (Extra high voltage) lines are preferred?

A. There is an increase in flexibility as it is directly proportional to volume of conductor.

B. The installation cost of transmission line per kilometer decreases as the volume of conductor decreases, and hence the cost of line supports reduces.

C. It improves the performance of transmission lines.

D. There is a possibility of interconnecting power systems for the economical operation of power systems.

51. _____ is basically a static power electronics device which converts fixed DC voltage/power to variable DC voltage or power.

A. Converter

B. Chopper

C. Inverter

D. Integrator

52. Which of the following is NOT the correct type of timer instruction available with SLC 500 based systems?

A. TOF timer

B. TON timer

C. RTO timer

D. RES timer

53. Which of the following is a FALSE statement?

A. The working fluid in the Rankine cycle may be water, mercury, low boiling substance.

B. The basic thermodynamic cycle on which the gas turbine is based is the joule cycle.

C. The most efficient power generation systems in commercial service are Rankine cycle plants with power to fuel energy efficiencies more than 54%.

D. Rankine cycle is the thermodynamic cycle for steam power generation.

54. Select the correct type of relays for which the following statement is true.

"They are frequently used on large equipment or switchgear. These units check whether all of the current entering a system comes back out of the system. If it does not, the relay closes a contact that shuts down the equipment."

A. Time-delay relays

B. Reverse-current relays

C. Differential relays

D. Loss-of-phase relays

55. Which of the following is an INCORRECT statement in terms of comparison of hydropower stations with thermal power stations?

A. Hydro-power stations have long useful lives compared to thermal power stations.

B. Construction time required for hydro-power plants is far less compared to thermal power stations.

C. Hydro-power stations are inexpensive compared to thermal power stations

D. Hydro-power plants' design is simple compared to thermal power stations

56. _____ represents the major cause of fatigue, failure of conductor strands or of items

associated with the support, use and protection of the conductor during high wind pressures.

A. Unbalance loading

B. Overloading

C. Aeolian vibration

D. Galloping

57. Which of the following is a renewable source of energy?

A. Wind

B. Coal

C. Natural gas

D. Nuclear energy

58. _____ can be very small and are usually associated with electronic circuitry such as preamplifier and a ADC, so that a single chip can produce digital audio.

A. Condenser microphones.

B. Carbon microphones.

C. Dynamic microphones.

D. Silicon microphones.

59. The dimensional formula $ML^2 T^{-2}$ may NOT correspond to:

A. momentum

B. torque

C. energy

D. Work

60. Which of the following is NOT one of the non-conventional sources of energy?

A. Fire wood energy

B. Magneto-hydrodynamics generator

C. Energy from biomass and biogas

D. Tidal energy

61. Which of the following is said to be an external risk factor for an entrepreneur?

A. Technological risk

B. Strategic risk

C. Employee risk

D. Innovation risk

62. Which of the following is NOT one of the advantages of electrical drives?

A. It can be used at far off places which are not supplied by electric supply

B. High efficiency

C. Being compact, they require less space

D. They have comparatively long life as compared to mechanical drives

63. Which of the following accessories is required to install a conductor at the poles?

Not there?

A. Tension clamp

B. Toothed groove clamp.

C. Binding tape

D. Repair sleeve

64. Which of the following is NOT an advantage of SF_6 circuit breaker?

A. Minimum maintenance required for this breaker.

B. Problems connected with current chopping are minimum.

C. SF_6 breakers are economical.

D. The size of SF_6 breaker is smaller than conventional circuit breaker of the same rating.

65. Which of the following is NOT one of the logic functions of PLC programming?

A. INHIBITION

B. NOT

C. YES

D. NOD

66 As a thumb rule, the depth of the pole to be planted in the ground is taken as _____ of the pole length.

A. 1/4

B. 1/6

C. 1/10

D. 1/5

67. Which of the following statement is correct for overcurrent protection of transmission lines?

A. It is used for important lines of relatively short length.

B. It is applied as main protection for distribution lines and back-up for main lines where the protection is of distance type.

C. It is faster than other protection methods.

D. It is used where the length of the transmission line is long and the circuit at both ends- It is necessary to open the breaker simultaneously.

68. _____ is used as an electric insulator.

A. Rubber

B. Plastics

C. Leather

D. Asbestos

69. Which among the following electrical appliances consumes the maximum electricity?

A. Fan

B. Light-bulb

C. Television

D. Electric heater

70. Which of the following statements is true for 'star/star' transformer connection?

A. This connection can operate at 58 percent normal rating as open-star when one transformer is removed for maintenance.

B. This connection is rarely used because of difficulties associated with the exciting current.

C. This suits large LV transformers.

D. None of these

71. Which of the following is a universal gate for logic circuits?

A. NOT

B. OR

C. AND

D. NAND

72. Electric heater, valves, relays etc. of PLC are:

A. rack devices

B. output devices

C. power supply devices

D. input devices

73. Which of the following materials/products are NOT used for insulating electrical power equipment?

A. Paper-based phenolic laminate

B. Glass polyester rods

C. Mica epoxy laminate

D. Platinum-coated kraft paper

74. The ratio of the work actually developed by the turbine expanding hot power gas through a given pressure range to that would be yielded for ideal expansion conditions.

The given statement relates to which of the following terms?

A. Engine efficiency

B. Machine efficiency

C. Thermal efficiency

D. Combustion efficiency

75. Air blast circuit breakers are suitable for:

A. short duty

B. arc furnace duty

C. non-repeated duty

D. air-cuts arc duty

76. Which of the following is NOT one of the fields of application of photoelectric cell?

A. Counting machines

B. Burglar arms

C. Street lightning

D. Reproduction of light in motion picture

77. Which of the following is INCORRECT with regard to the foremost properties of materials used for preparing resistances for precision measurement work?

A. Robust construction

B. Cheapness

C. Small temperature co-efficient

D. High thermo-electric e.m.f. with copper

78. Which of the following is NOT used as an insulation medium in a transformer?

A. Insulating oil

B. Insulating thread

C. Wood-based lamination

D. Insulating paper

79. An inverter is NOT a _____.

A. converter

B. generator

C. static device

D. device with no moving part

80. Body centred cubic (B.C.C.) type crystal structure is found in _____.

A. sodium

B. aluminium

C. calcium

D. gold

81. _____ are conductors that are of large current carrying capacitor. They connect the substation to the area where power is to be finally distributed to consumers.

A. Feeders

B. Service mains

C. Distributors

D. Tappings

82. 'Hewlett, cemented cap and core and link' are types of which insulator used for overhead transmission line?

A. Pin type

B. Strain type

C. Suspension type

D. Shackle type

83. In which of the following are choppers NOT used?

A. Mine haulers

B. AC voltage regulators

C. Electric traction

D. Battery charging purposes

84. Which of the following is NOT the correct preventive measures to be applied for homes?

A. Provide proper earthing for the building/house.

B. Use switches of the correct current rating.

C. Ensure pins of your plugs are loose enough for proper inserting.

D. Allow only qualified persons to attend to your electrical repairs.

85. Which of the following is NOT a disadvantage of HVDC transmission system?

A. Ripples and harmonics are generated when AC is converted into DC.

B. Reactive power cannot be transmitted through a DC line.

C. Voltage cannot be stepped up.

D. The short circuit current required is high when compared to AC systems.

86. Which of the following is NOT one of the advantages of DCS (Distributed Control Systems)?

A. There is only marginal effect on the system capability on complete loss of data highway, due to any reason.

B. It enables the operator or plant engineer to use several control modes for monitoring a process.

C. DCS provides a better platform to implement ideas.

D. Its pre-installation cost is low and is easy to maintain

87. _____ are used in applications where power consumption and space are more important than speed as in pocket calculators.

A. Dynamic MOS

B. Bi-shift registers

C. Static inverters

D. Static shift registers

88. The layout of a modern steam power plant does NOT comprise of which of the following circuits?

A. Air and gas circuit

B. Cooling water circuit

C. Coal and ash circuit

D. Water exit and flow circuit

89. A 5.0 ampere ammeter has a resistance of 0.01Ω. Determine the efficiency of the instrument.

A. 25.01 A/W

B. 20 A/W

C. 2 A/W

D. 10 A/W

90. 0°/180° connection can also be defined as _____.

A. Delta/Star connection

B. Star/Star connection

C. Star/Delta connection

D. Indirect-star connection

91. Which of the following is the disadvantage of 'flux control method' (one of the speed control methods) of a DC shunt motor?

A. Power loss in the external resistance is very high.

B. It provides slightly complex control.

C. The speed control below normal rated speed is not possible.

D. As the field current is small the size of the rheostat required is small.

92. While making the choice of drive, which of the following factors is NOT considered?

A. Speed of driving and driven machines

B. Cost

C. Drive machine temperature

D. Space available

93. The give symbol relates to:

A. n conductors

B. zig-zag conductors

C. group of several conductors

D. flexible conductors

94. Which of the following is not a cause of resistor failure?

A. Insulator Glazing

B. Flash over

C. short circuit

D. mechanical stress

95. Which of the following is NOT one of the advantages of the combined cycle, i.e.

'combined gas turbine and diesel power plants'?

A. The combined system offers forced manual feature.

B. Less cooling water requirement.

C. It gives high ratio of power output to occupied ground space.

D. More suitable for rapid start and shut down

96. _____ are generally used with pole guys on low voltage lines, where it is necessary to insulate the lower part of the guy wire from the pole for the safety of people and animals on the ground.

A. Thread insulators

B. Strain insulators

C. Shackle type insulators

D. Pin type insulators

97. _____ is NOT included in battery charging system.

A. A container for the batteries

B. Rectifier

C. Inverter

D. Generator

98. In a single-phase full bridge inverter, the number of thyristors and diodes is _____ of a single-phase half-bridge inverter.

A. quarter

B. Twice

C. half

D. equivalent to that

99. Which of the following is NOT one of the analog to digital (A/D) conversion techniques?

A. Voltage to-time conversion method

B. Successive approximation method

C. Single slope integration method

D. Voltage to frequency conversion method

100. _____ is a programming language that utilises statements to determine what to execute.

A. Function block diagram

B. Structured text programming

C. Sequential block diagram

D. Instruction programming

101. There are _____ number of digits in a binary number system.

A. 8

B. 2

C. 4

D. 6

102. Which of the following applications use shunt DC motors?

A. Milling machines

B. Electric locomotives

C. Elevators

D. Hoists and elevators

103. _____ is the luminous flux received by a surface per unit area.

A. Candle power

B. Lumen

C. Illumination

D. Luminance

104. Select, from the following options, the INCORRECT use of ash of steam power plants.

A. Ash is used in the production of concrete

B. Ash is widely used in the production of cement

C. From the ash, metals such as FE, Si and titanium can be recovered

D. Because of their residual value, they are used for treating neutral soils which increases yield of wheat, sugarcane etc.

105. _____ is one type of switch, the contacts of which are opened or closed by the position of mercury placed in a tube.

A. Intermediate switch

B. Shift switch

C. Float switch

D. Selector switch

106. Which of the following is NOT an advantage of gas turbine power plants over diesel power plants?

A. Poor quality fuels can be used

B. Good part load efficiency

C. Less space requirements

D. Capital cost considerably less

107. Which of the following is also known as 'condition based maintenance' strategy?

A. Predictive maintenance

B. Preventive maintenance

C. Proactive maintenance

D. Reactive maintenance

108. Out of the following offline UPS Select the correct application of (UPS)?

A. Induction motor drives

B. Emergency power supplies, EPABX

C. Intensive care units

D. Medical equipment

109. Which of the following is NOT the reason why mechanical handling of coal is preferred over manual handling in a steam power plant?

A. Capital cost of the preferred handling system is low.

B. Can be easily started and can be economically adjusted according to the need.

C. Operation is easy and smooth.

D. Less labour is required.

110. Which of the following systems is NOT used to distribute power to a consumer?

A. Single-phase ac supply using a 3-wire system.

B. Three-phase ac supply using a 3-wire system.

C. Supply of three-phase and neutral using a 4-wire system.

D. Single-phase ac supply using a 2-wire system

111. Which of the following point should not be given due consideration while selecting the site for a gas turbine plant?

A. The distance from the nearest power plant.

B. Availability of labour.

C. The bearing capacity of the land should be high.

D. Availability of means of transport.

112. Select the INCORRECT statement with regard to LEDs.

A. LEDs are rugged and therefore withstand shocks and vibrations.

B. LEDs are suited for large area displays, primarily because of their low cost.

C. LEDs are economical and have a high degree of reliability.

D. LEDs are available which emit light in different colours like red, green, yellow and amber

113. The _____ is mainly utilised for spreading the magnetic flux to avoid the field coil from falling.

A. pole shoe

B. brush

C. yoke

D. commutator

114. Which of the following conventional methods of laying underground cables is NOT used nowadays?

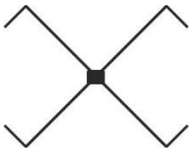
A. Laying in troughs

B. Laying cables on racks and cleats

C. Laying directly in the ground

D. Drawing into pipes or ducts

115. The given symbol belongs to which of the following 'switch' and switch outles'?



A. Two way bell push

B. Two way switch

C. Intermediate switch

D. Two-pole one way switch

116. The insulation provided to underground cables should NOT have _____.

A. high viscosity at working temperature

B. high resistivity

C. low absorption of moisture

D. low thermal coefficient

117. The ratio of power available at the shaft of the turbine to the power supplied by the water at the inlet of the turbine is known as:

A. overall efficiency

B. mechanical efficiency

C. hydraulic efficiency

D. volumetric efficiency

118. Magnetising force which is necessary to neutralise completely the magnetism is an electromagnet after the value of magnetising force becomes zero.

The given statement is true for:

A. ductility

B. absolute permeability

C. magnetic hysteresis

D. coercive force

119. _____ is the symbol used for shunt conductance (one of the parameters of electric transmission line conductor).

A. C

B. R

C. G

D. L

120. _____ is used to store program codes.

A. System memory

B. Data memory

C. User memory

D. Executive memory

121. Super tension cables are generally used up to _____ kV.

A. 33

B. 66

C. 11

D. 132

122. Air-break circuit breakers are used in DC. circuits and AC circuits _____, where air at atmospheric pressure is used.

A. above 760 kV

B. up to 12 kV

C. for 220 kV and above

D. for 33 kV and above

123. The output best suited for both AC and DC output devices is _____.

A. transistor output

B. relay output

C. triac output

D. delta output

124. The mechanical heart of a diesel engine is the _____.

A. engine starting system

B. fuel injection system

C. air intake system

D. exhaust system

125. Which of the following types of starters are used in DC shunt motors?

A. Five point starters

B. Two point starters

C. Pointless starters

D. Four point starters

126. Which of the following instruments use the Hall effect?

A. Voltmeters

B. Integrating meters

C. Watt meters

D. Flux meters

127. Which method of arc extinction is employed in DC circuit breakers and in low and medium voltage AC circuit breakers?

A. Zero principle interruption.

B. High resistance interruption.

C. Low resistance interruption.

D. Zero point-interruption.

128. The alternating magnetic flux in a conductor caused by the current flowing in a neighbouring conductor gives rise to circulating currents, which causes an apparent increase in the resistance of a conductor. This phenomenon is called the _____.

A. surrogacy effect

B. spirality effect

C. proximity effect

D. skin effect

129. The generator whose field magnet winding is supplied from an independent external DC source is called:

A. separately excited DC generator

B. series-shunt DC generator

C. individual shunt DC generator

D. compounded separate DC generator

130. The above symbol belongs to which below listed switchgear:

A. Open link.

B. Link.

C. Three-pole switch, line representation.

D. Circuit breaker.

131. _____ is NOT one of the types of a 'digital voltmeter'.

A. Integrating type DVM

B. Ramp type DVM

C. Static balance type DVM

D. Potentiometric type DVM

132. Which of the following in NOT the correct point to be considered in designing a good lightning scheme?

A. The selection of the required lamp and fitting.

B. The temperature of the room.

C. The size of the room.

D. The intensity of illumination required.

133. Which of the following logic functions is used for load connecting a "NOT" contact to the left-hand bus bar?

A. AND NOT

B. NOT

C. LD NOT

D. LD

134. Which of the following is NOT one of the element items included in electrical equipment of hydro-electric plant?

A. Oil circuits and pumps

B. Exciters

C. Switchgear

D. Control room equipment

135. Which of the following is NOT necessary to be checked while maintaining cross arms of lines?

A. Sinking of earth around the pole

B. Tilting of cross arms

C. Rusting of cross arms

D. Creeper on cross arms

136. Which of the following is NOT an advantage of hydro-electric plants?

A. Running cost of the plant is low.

B. It takes considerably less time for the erection of such plants.

C. It is highly reliable.

D. It takes few minutes to run and synchronise the plant

Q.137. Which of the following methods of starting is required for induction motors of high rating?

A. Direct on line starters

B. Start delta starters

C. Rotor resistance starters

D. Auto-transformer starters

138. Which of the following is NOT one of the components of 'Programmable Logic Controller'?

A. Memory

B. Battery

C. CPU

D. Microprocessor

139. The power developed at hydroelectric plants depends upon:

A. Heat transferred to turbine.

B. Cumulative weight of heat loss.

C. Head and discharge.

D. Alternator efficiency.

140. _____ has a fixed number of I/O modules and external I/O cards. So, it does NOT have the capability to expand the modules.

A. Dynamic PLC

B. Modular PLC

C. Multi-concept PLC

D. Compact PLC

141. _____ is one of the type of electrical dust collectors from steam power plants.

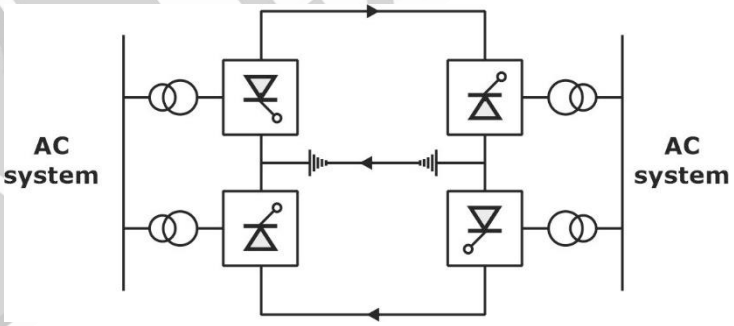
A. Rod type.

B. Packed type.

C. Cyclone separators.

D. Spray type.

142. The above layout belongs to:



A. Homopolar link.

B. Monopolar link.

C. Biopolar link.

D. Induced link.

143. For _____, the total resistance, inductance and capacitance (line parameters) are considered as uniformly distributed.

A. medium transmission lines

B. ultra-short transmission

C. short transmission lines

D. long transmission lines

144. _____ have frequency band range 20 kHz - 30 MHz.

A. Very high frequency oscillators

B. High frequency oscillators

C. Radio frequency oscillators

D. Video frequency oscillators

145. Which of the following motors are used in machine tools?

A. D.C. cumulative motors

B. Squirrel-cage motors

C. Pipe ventilated type motors

D. Slip ring induction motors

146. Which type of fuses from the following are used in control circuits?

A. Kit-kat fuses

B. Cartridge fuses

C. Rewirable fuses

D. Copper wire fuses

147. Single phase full-wave controlled rectifier is also called:

A. one SCR rectifier

B. two quadrant converter

C. double SCR rectifier

D. one quadrant converter

148. Which of the following is NOT the correct match for assessing the total load of a building that should be adopted after deciding the number and type of outlets?

A. Ceiling fans - 100 watts

B. Power sockets (15 A socket) - 500 watts

C. Incandescent light point - 60 watts

D. Light sockets (5A socket) - 100 watts

149. Which of the following is NOT one of the advantages of tidal power generation?

A. It is free from pollution.

B. Large area of valuable land is not required.

C. As compared to other sources of energy, this is economical.

D. It is completely independent of the precipitation and its uncertainty, besides being inexhaustible.

150. _____ in Boolean algebra is similar to addition in ordinary algebra.

A. NAND operation

B. NOT operation

C. AND operation

D. OR operation

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