On Job Training Questions:

- Q1. What are the tools and tackles required for vertical pump erection?
- Q2. What are the checks required before starting Boiler Feed Pump?
- Q3. What are important protections of turbine?
- Q4. What are important protections of Boiler?
- Q5. What checks are to be conducted before start of Pulveriser in Boiler?
- Q6. How the vacuum is created in condenser?
- Q7. What is to be ensured after trip-out with black-out?
- Q8. What precautions are essential during steam blowing of boiler/turbine piping?
- Q9. What are the investigation tools for finding reasons of boiler tube failure?
- Q10. What is the start-up procedure of turbine from cold condition?
- Q.11 What are the losses in a Generator?
- Q12. What are the major electric systems in Thermal Power Plant?
- Q13: What is down comer?
- Q14. Function of ESP
- Q15. What should you do if you lost vacuum while operating a condensing turbine plant?
- Q16. Why is there a bursting diaphragm on a turbine casing?
- Q17. Do you stop cooling-water flow through a steam condenser as soon as the turbine is slopped?
- Q18. What is meant by critical speed?
- Q19. What is the purpose of a turning gear?
- Q20. What are the main causes of turbine vibration?
- Q21. Steam coming out from a turbine gland is wasteful. Why else should it be avoided?
- Q22. How is oil pressure maintained when starting or stopping a turbine?
- Q23. What is Cavitation and disadvantages of Cavitation?

Viva Questions:

- Q1. What is the largest pump in the thermal power plant?
- Q2. Why the Thermal efficiency of the steam power plant is quite low?
- Q3. What is independent power plant
- Q4. What are the differences between impulse and reaction turbines?
- Q5. What is the difference between partial and full arc admission?
- Q6. What are the stresses to which a steam turbine rotor is subjected during its service life?
- Q7: What is supercritical pressure boiler?
- Q8. Passivation of boiler tube?
- Q9: What function does draft plays in the combustion of fuel?
- Q10: How does a forced draft fan differ from induced draft fan?
- Q11. Why boiler blow-down is required?
- 12: Why hydrostatic test is conducted on a boiler?

- Q13.What is a transformer and how does it work?
- Q14. What type of cooling is provided for Generator in bigger power plant?
- Q15. What are the common welding defects?
- Q16. What are the differences between impulse and reaction turbines?
- Q17. What are two types of clearance in a turbine?

Objective type Questions:

- 1. Thermal conductivity of solid metals with rise in temperature normally
 - a) increases
 - b) decreases
 - c) remains constant
 - d) may increase or decrease depending on temperature
 - e) unpredictable.

2. When heat is transferred from one particle of hot body to another by actual motion of the heated particles, it is referred to as heat transfer by

- a) conduction
- b) convection
- c) radiation
- d) conduction and convection
- e) convection and radiation.

3. When heat is transferred form hot body to cold body, in a straight line, without affecting the intervening medium, it is referred as heat transfer by

- a) conduction
- b) convection
- c) radiation
- d) conduction and convection
- e) convection and radiation.
- 4. Sensible heat is the heat required to
 - a) change vapour into liquid
 - b) change liquid into vapour
 - c) increase the temperature of a liquid of vapour
 - d) convert water into steam and superheat it
 - e) convert saturated steam into dry steam.
- 5. The insulation ability of an insulator with the presence of moisture would
 - a) increase
 - b) decrease
 - c) remain unaffected
 - d) may increase/decrease depending on temperature and thickness of insulation
 - e) none of the above.
- 6. When heat is Transferred by molecular collision, it is referred to as heat transfer by
 - a) conduction
 - b) convection
 - c) radiation
 - d) scattering
 - e) convection and radiation.
- 7. Heat transfer in liquid and gases takes place by
 - a) conduction
 - b) convection
 - c) radiation

- d) conduction and convection
- e) convection and radiation.

8. Which of the following is the case of heat transfer by radiation

- a) blast furnace
- b) heating of building
- c) cooling of parts in furnace
- d) heat received by a person from fireplace
- e) all of the above.
- 9. Heat is closely related with
 - a) liquids
 - b) energy
 - c) temperature
 - d) entropy
 - e) enthalpy.
- 10. Total heat is the heat required to
 - a) change vapour into liquid
 - b) change liquid into vapour
 - c) increase the temperature of a liquid or vapour
 - d) convert water into steam and superheat it
 - e) convert saturated steam into dry steam.
- 11. Cork is a good insulator because it has
 - a) free electrons
 - b) atoms colliding frequency
 - c) low density
 - d) porous body
 - e) all of the above.
- 12. Temperature of steam at around 540°C can be measured by
 - a) Thermometer
 - b) radiatiouv pyrometer
 - c) thermistor
 - d) thermocouple
 - e) thermopile.
- 13. Heat flows from one body to other when they have
 - a) different heat contents
 - b) different specific heat
 - c) different atomic structure
 - d) different temperatures
 - e) none of the above.
- 14. Thermal conductivity of glass-wool varies from sample to sample because of variation in
 - a) composition
 - b) density
 - c) porosity
 - d) structure
 - e) all of the above.
- 15. Heat is transferred by all three modes of transfer, viz, conduction, convection and radiation in
 - a) electric heater
 - b) steam condenser
 - c) melting of ice
 - d) refrigerator condenser coils
 - e) boiler.

- 16. Heat transfer by radiation mainly depends upon
 - a) its temperature
 - b) nature of the body
 - c) kind and extent of its surface
 - d) all of the above
 - e) none of the above.
- 17. In heat exchangers, degree of approach is defined as the difference between temperatures of
 - a) cold water inlet and outlet
 - b) hot medium inlet and outlet
 - c) hot medium outlet and cold water inlet
 - d) hot medium outlet and cold water outlet
 - e) none of the above.
- 18. A steam pipe is to be insulated by two insulating materials put over each other. For best results
 - a) better insulation should be put over pipe and better one over it
 - b) inferior insulation should be put over pipe and better one over it
 - c) both may be put in any order
 - d) whether to put inferior OIL over pipe or the better one would depend on steam temperature e) unpredictable.
- 19. Thermal conductivity of water in general with rise in temperature
 - a) increases
 - b) decreases
 - c) remains constant
 - d) may increase or decrease depending on temperature
 - e) none of the above.
- 20. The watt is the unit of:
 - a) power
 - b) magnetic flux
 - c) electromagnetic field strength
 - d) breakdown voltage
- 21. The unit for potential difference between two points in an electrical circuit is the:
 - a) Ampere
 - b) Volt
 - c) Ohm
 - d) Coulomb
- 22. Impedance is a combination of:
 - a) reactance with reluctance
 - b) resistance with conductance
 - c) resistance with reactance
 - d) reactance with radiation
- 23. What component will not be found in a thermal power plant?
 - a) Coal handling plant
 - b) Reactor building
 - c) Cooling tower
 - d) Turbine
- 24. Ultra mega power plants are those plant whose capacity is:
 - a) 1000 MW
 - b) 2000 MW
 - c) 3000 MW
 - d) 4000 MW

- 25. Circulation ratio of super-critical boiler is:
 - a) 1
 - b) 3~4
 - c) 7~8
 - d) >8

26. Which of following is not a Major equipments of thermal power plant:

- a) Steam generator
- b) Switchyard
- c) Penstock
- d) Cooling tower
- 27. What is not a part of balance of plant in a thermal power plant:
 - a) Fuel oil system
 - b) Synchronisation system
 - c) Compressed air system
 - d) Station water system

28. CEA does not provide guidelines for the following regulations:

- a) Tariff regulations
- b) Trading margin regulations
- c) Land selection criteria
- d) Open access in inter-State Transmission Regulations
- 29. Health and safety at works act 1974 is not applicable to:
 - a) All employees
 - b) All employers
 - c) Township residents
 - d) All suppliers to the plant
- 30. Which of the following is not a common transmission voltage?
 - a) 11~33 KV
 - b) 33~132 KV
 - c) 132~220 KV
 - d) More than 220 KV
- 31. Which fan in boiler does not take suction from atmosphere?
 - a) Forced draft fan
 - b) Induced draft fan
 - c) Primary air fan
 - d) None of the above
- 32. In which turbine the pressure drop occurs across only the stationary blades:
 - a) Impulse turbine
 - b) Reaction turbine
 - c) Both of above
 - d) None of the above
- 33. Vacuum in condenser cannot be pulled/maintained by:
 - a) Steam jet ejector
 - b) Centrifugal pump
 - c) Lobe pump
 - d) Gear pump
- 34. Turbine governing system does not provide oil for:
 - a) Turbine speed control
 - b) Turbine valves opening
 - c) Bearing lubrication
 - d) Overspeed protection

- 35. Which of the following is not performed by circuit breakers in power plant?
 - a) Control the electrical equipment
 - b) Protect the electrical equipment
 - c) Isolate the electrical equipment
 - d) Monitor the electrical equipment
- 36. Which is not a basic requirement of protective device in electrical circuits:
 - a) Safety
 - b) Economy
 - c) Accuracy
 - d) Compactness
- 37. What is not a basic condition for synchronisation process:
 - a) Matching with line voltage
 - b) Matching with line frequency
 - c) Matching with line phase sequence
 - d) Running of cooling water system
- 38. What is not a part of coal handling plant in power station:
 - a) Belt conveyor
 - b) Coal bunker
 - c) Stacker-reclaimer
 - d) Crushers
- 39. HFO is received in power plant through:
 - a) Road tankers
 - b) Rail wagons
 - c) Both of the above
 - d) None of the above
- 40. Which of the following is not handled by Ash handling system:
 - a) Bottom ash
 - b) Mill reject
 - c) Coarse ash
 - d) Fly ash
- 41. Which is not a part of cooling tower system:
 - a) Forced draft
 - b) Balanced draft
 - c) Induced draft
 - d) Natural draft
- 42. What cannot be taken care of by Fire protection system:
 - a) Fire detection
 - b) Fire avoidance
 - c) Fire suppression
 - d) Fire mitigation
- 43. What is not a part of procurement management:
 - a) Planning for purchase
 - b) Solicitation of offer
 - c) Receipt at plant
 - d) Source Selection
- 44. What is not a basic responsibility of Stores management:
 - a) Receipt of incoming goods
 - b) Certification of correct material
 - c) Storage and preservation
 - d) Inventory control

- 45. What does not constitute a storage facility:
 - a) Fork lift
 - b) Racks & shelves
 - c) Box pallets
 - d) Block racks

46. What construction related equipment cannot be used in open:

- a) Concrete pump
- b) Tower crane
- c) Electric overhead crane
- d) Bulldozer
- 47. What part of structures is essential for boiler drum lifting:
 - a) Columns
 - b) Beams
 - c) Platforms
 - d) Ceiling girders
- 48. What is not a part of boiler pressure parts:
 - a) Water wall
 - b) Economiser
 - c) Air pre-heater
 - d) Re-heater
- 49. What is not a part of standard heat treatment process of weld joints in boiler:
 - a) Pre-heating of joint
 - b) Post heating of joint
 - c) Magnetic particle test of the joint
 - d) Stress relieving of the joint
- 50. What is not an axial fan in the boiler:
 - a) Scanner air fan
 - b) Induced draft fan
 - c) Forced draft fan
 - d) Primary air fan
- 51. Pulverisers receive coal from:
 - a) Belt conveyor
 - b) Coal bunker
 - c) Coal feeder
 - d) Coal pipes
- 52. Maximum rotor run-out and misalignment allowed in turbine is:
 - a) <u>+</u>0.03 mm
 - b) <u>+</u>0.1 mm
 - c) <u>+</u>0.25 mm
 - d) <u>+</u>0.5 mm
- 53. Preferred grouting height for pedestals and base plates is:
 - a) <50 mm
 - b) 50~70 mm
 - c) 70~100 mm
 - d) It does not matter
- 54. Which is not a critical check during turbine erection:
 - a) Bump check
 - b) Dye penetration check
 - c) Horn drop check
 - d) Swing check

- 55. What is not a part of Generator system:
 - a) Governing system
 - b) Stator cooling water system
 - c) Gas system
 - d) Excitation system
- 56. Steam line s drain line slope should be:
 - a) 10 mm/M
 - b) 15 mm/M
 - c) 20 mm/ M
 - d) 25 mm/M
- 57. TDBFP (turbine driven BFP) is placed in TG hall on the:
 - a) Zero meter floor
 - b) Mezzanine floor
 - c) TG floor
 - d) Deaerator floor
- 58. Typically Wagon tipplers are designed to unload:
 - a) 05 wagons per minute
 - b) 10 wagons per minute
 - c) 20 wagons per minute
 - d) 40 wagons per minute
- 59. Ash conveying system is designed on the principle of:
 - a) Lean phase (vacuum) conveying
 - b) Dense phase (Pressure) conveying
 - c) Both of the above
 - d) Either of the above
- 60. Operation Engineer is not supposed to:
 - a) Start-up the unit
 - b) Monitor the operating unit
 - c) Maintain the equipment
 - d) Issue permit to work
- 61. What condition is not a must for boiler light-up:
 - a) Drum level should be normal
 - b) Air flow should be >30% and <40% of rated flow
 - c) Air Pre-heater should be running
 - d) BFP should be running
- 62. What condition is not a must for turbine rolling:
 - a) Turbine should be on barring gear
 - b) Cooling water should be charged through condenser
 - c) Generator coolers should be charged
 - d) Governing system should be ready after testing
- 63. What condition is not a must for putting turbine on barring gear;
 - a) Lubricating oil pressure is sufficient
 - b) Jacking oil pressure is sufficient and set
 - c) Turbovisory system is available
 - d) Condensate pump is in operation.
- 64. What is not a trip condition for turbine:
 - a) Lube oil pressure is low
 - b) Axial shift is high
 - c) Vacuum is low
 - d) Deaerator tank level is high

- 65. Which fan is started first while establishing flue gas flow in boiler:
 - a) Induced draft fan
 - b) Primary air fan
 - c) Forced draft fan
 - d) Scanner air fan

66. During warm/hot rolling of turbine main steam temperature should be:

- a) Equal to casing temperature
- b) Rated temperature at full load
- c) At least 25°C higher than casing temperature
- d) At least 100°C more than casing temperature
- 67. Silica limit in main steam to turbine is:
 - a) 20 ppb
 - b) 200 ppb
 - c) 2 ppm
 - d) 20 ppm

68. What is not a part of daily routine check of pumps in power plant:

- a) Bearing drain oil temperature
- b) Open condition of inlet/outlet valve
- c) Alignment of the pump
- d) Current drawn by the motor
- 69. What function do not happen in case of turbine trip-out:
 - a) Main steam stop valves must be closed.
 - b) NRV's on extraction lines must get closed.
 - c) Barring gear should get engaged.
 - d) Generator circuit breaker should be open.
- 70. Which of the following cannot be an effect of partial load throw off due to high frequency:
 - a) Disturbance in condenser level
 - b) Disturbance in condenser vacuum
 - c) Disturbance in lubricating oil pressure
 - d) Decrease of load on generator
- 71. Which of the following will not cause loss of vacuum during operation of plant:
 - a) Steam ejector not getting sufficient steam pressure
 - b) High level in condenser
 - c) High pressure in gland sealing steam
 - d) CW pump failure
- 72. Which of the following is not a main area of maintenance management:
 - a) Work management
 - b) Load management
 - c) Plant condition control
 - d) Cost control
- 73. What is not a type of maintenance:
 - a) Perceptive
 - b) Preventive
 - c) Proactive
 - d) Predictive
- 74. What is not a maintenance requirement:
 - a) To increase availability
 - b) To increase generation
 - c) To decrease forced outage
 - d) To replace damaged components

- 75. What is not a reason of deficiency in performance:
 - a) High power consumption
 - b) Low discharge pressure
 - c) High vibration
 - d) Direction of rotation
- 76. What is not an identification tool in maintenance:
 - a) Vibration measurement
 - b) Tribology
 - c) Thermography
 - d) Ultrasound
- 77. What is not a tool to establish fault location:
 - a) Insulation resistance test
 - b) Dye penetration test
 - c) Magnetic particle inspection
 - d) Ultrasonic test
- 78. What is not a failure mechanism in turbine:
 - a) Leakage
 - b) Corrosion
 - c) Erosion
 - d) Fatigue
- 79. What is not a failure mechanism in generator:
 - a) Foreign object damage
 - b) Drop in hydrogen pressure
 - c) Overheating
 - d) Stator wedge looseness
- 80. What is not a cause of long term overheating in boiler tube:
 - a) Operation beyond design life
 - b) Partial blockage
 - c) Starvation of steam/water flow
 - d) Rogue material
- 81. What is not a type of weld joint:
 - a) Straight joint
 - b) Butt joint
 - c) Lap joint
 - d) Tee joint
- 82. What is not a welding process related defect:
 - a) Porosity
 - b) Overcut
 - c) Overlap
 - d) Spatter
- 83. The minimum replacement tube length should not be less than:
 - a) 75 mm
 - b) 100 mm
 - c) 125 mm
 - d) 150 mm
- 84. Turbine casings are opened for inspection during:
 - a) Capital overhauling
 - b) Intermediate inspection
 - c) Both of the above
 - d) None of the above

- 85. Inspection for faults in blades is carried out by:
 - a) Magnetic particle inspection
 - b) Natural frequency test
 - c) Both of the above
 - d) None of the above

86. In condensate pump, no liquid delivery problem will not happen due to:

- a) Pump not primed
- b) Misalignment of pump
- c) Suction line obstruction
- d) Impeller clogged

87. The permissible value of BDV (break down voltage) of transformer oil of 220 KV transformer is:

- a) <u>></u>30 KV
- b) <u>≥</u>40 KV
- c) <u>></u>50 KV
- d) None of these

88. By DGA (dissolved gas analysis) which one of the following cannot be detected:

- a) Arcing of high current break down
- b) Short circuit of transformer
- c) Partial discharge
- d) Sustained over loading
- 89. What is not a part of motor maintenance program:
 - a) Motor relay inspection
 - b) Bearing inspection
 - c) Rotor/stator inspection
 - d) Motor mounting inspection
- 90. What is not covered under CEA gazette notification of 2010:
 - a) Thermal power life shall not be less than 25 years
 - b) Noise level shall not exceed 85 dBA at a distance of 1 meter
 - c) All surfaces having >600C temperature shall be insulated.
 - d) Thermal power plant shall be 15 KM away from Town
- 91. What is not mandatory as per provisions of Fire protection system:
 - a) Fire buckets with sand
 - b) Fire extinguishers
 - c) Fire safety suits
 - d) First-aid boxes
- 92. What is not defined as possible hazard:
 - a) Strike the work
 - b) Careless approach
 - c) Inadequate instructions
 - d) Damaged tools and equipment
- 93. The fundamental of safe working is:
 - a) Follow operating instructions
 - b) Deploy proper tools
 - c) Proper authorisation to work
 - d) Only first two of the above
 - e) All three of the above
- 94. What is not a Safety Requirements Applicable at Work:
 - a) Wear personal protective equipment
 - b) Report for duty in time
 - c) Use tools in a proper manner

- d) Always follow safety procedure
- 95. What are the ingredients of fire:
 - a) Oxygen
 - b) Fuel
 - c) Heat
 - d) Any two of the above
 - e) All three of the above
- 96. What is not a proper step in developing workplace policy:
 - a) Mananegement's direction
 - b) Define the terms of policy
 - c) Put the policies in writing
 - d) Inform the staff members
- 97. What is a proper way of effective communication:
 - a) Verbal communication
 - b) Body language
 - c) Facial expression
 - d) Eye contact
- 98. What is not an element of active listening:
 - a) Pay attention
 - b) Provide feedback
 - c) Make judgment
 - d) Respond appropriately
- 99. Effective communication practices lead to:
 - a) Clear responsibilities
 - b) Conflict between employee and management
 - c) Overload of information
 - d) Limited feedback
- 100. What is not the characteristic of disciplined behaviour:
 - a) Use of office equipment or facility
 - b) Maintain work standard
 - c) Be punctual
 - d) Respect oneself and others
- 101. What is not a good interpersonal skill:
- Positive attitude

Inclusiveness

Persuasiveness

Social awareness

102. What is a hindrance in developing working relationship:

- a) Assertiveness
- b) Self interest
- c) Decision making
- d) Problem solving

Q103. How do we check the temperature rise of Switchyard jumpers, Droppers, CT /PT/Breakers Connection?

- a) Lux measurement
- b) Vibration Probe
- c) Ultra violet measurement
- d) Thermal imaging

Q104. A Current Transformer is connected in ______ with the line.

a) Series.

- b) Across
- c) Not Connected
- d) Both a and b
- Q105. PLCC stands for
 - a) Power Line Communication Cable
 - b) Power Load Communication Carrier
 - c) Power Line Carrier Communication
 - d) Power Load Carrying Capacity
- Q106. Standard frequency usually for electric supply is
 - a) 50 Hz
 - b) 60 Hz
 - c) 50 to 60 Hz
 - d) 50 to 55 Hz.

Q107. Buchholz relay is especially suitable for which type of transformer?

- a) Ground transformer
- b) Oil immersed transformer
- c) Current transformer
- d) Potential transformer

Q108. What is GCB and where it is typically installed in plant?

- a) Generator Circuit Breaker / Between Generator and Generator Transformer
- b) Gas Circuit Breaker / after Generator Transformer
- c) Generator Circuit Breaker / Between Generator and Unit Transformer
- d) None
- Q109. What is the cooling medium for typically big Generator?
 - a) Hydrogen
 - b) Water
 - c) Air
 - d) Both a & b above

Q110. Electrostatic precipitator is installed between

- a) Boiler furnace and Economizer.
- b) Induced Draft fan and chimney.
- c) Air pre-heater and Induced Draft fan.
- d) Economizer and air pre-heater.
- Q111. During normal unit operation auxiliaries supply is taken from
 - a) Station Start up transformer
 - b) Unit Transformer
 - c) Generator Transformer
 - d) None of the above
- Q112. In electrostatic precipitator
 - a) Emitting electrodes are supplied with high DC voltage & collecting electrode earthed
 - b) High DC voltage supplied to both the electrodes
 - c) High DC voltage is supplied to collecting electrodes & emitting electrode earthed
 - d) None of the above
- Q113. A turbo generator is
 - a) 2-Pole Machine
 - b) 4-Pole Machine
 - c) 6-Pole Machine
 - d) All of the above
- Q114. Oil is used in a transformer

- a) For cooling purpose
- b) As insulation
- c) Both a & b above
- d) None of the above
- Q115. Cells are connected in series in order to
 - a) Increase the voltage rating.
 - b) Increase the current rating.
 - c) Increase the AH of cells.
 - d) None of the above
- Q116. The indication of the state of charge of a battery is best given by
 - a) Level of electrolyte.
 - b) Specific gravity of electrolyte.
 - c) Temperature of electrolyte.
 - d) Color of electrolyte.

Q117. Two types of earthings are provided: (a) Equipment earthing and (b) Neutral point earthing. Equipment earthing is provided for

- a) Safety of human being
- b) Safety of equipments
- c) Safety of starters and cables
- d) None

Q118. Polarization index is the ratio of Megger value taken for

- a) Megger value taken for 1 minute.
- b) 10 minutes to the Megger value taken for 1 minute.
- c) 5 minutes to the Megger value taken for 1 minute.
- d) 2 minutes to the Megger value taken for 1 minute.
- Q119. Pulverized coal is
 - a) Coal free from ash.
 - b) Nonsmoking coal.
 - c) Coal which burns for long time.
 - d) Coal broken in fine particles.
- Q120. Equipment used for pulverizing the coal is the
 - a) Coal Crushers
 - b) Coal Mills
 - c) Conveyors
 - d) Hoppers
- Q121. The rotor of a Turbo-Generator is a:
 - a) Four pole cylindrical m/c having concentric-winding
 - b) Two pole cylindrical m/c having concentric-winding
 - c) Two pole salient m/c having concentric-winding
 - d) None of the above
- Q122. What is OLTC for Transformer
 - a) On load Tap Changer
 - b) Off Load Tap Changer
 - c) Both a & b
 - d) None of the above
- Q123. The step/ condition for line-up of LDO forwarding pump are :
 - a) Open supply valve from tank
 - b) Open isolation valves of recirculation line.
 - c) Open suction filter I/L and O/L valve and open discharge valve.
 - d) Vent it properly from strainer, open discharge valve.

- e) All of the above
- Q124. List the fire-fighting systems installed for LDO tanks are :
 - a) Hydrant system for outside tank
 - b) Foam system for inside tank
 - c) Water spray system
 - d) (a) & (b) of the above

Q125. The venting is to be done before starting the LDO/HFO pumps?

- a) To remove air pockets from the oil lines
- b) To remove gas pockets from the oil lines
- c) To remove residue of oil pockets from the oil lines
- d) None of the above
- Q126. The drains are to be kept open during charging of steam tracing lines?
 - a) Remove condensate from steam lines
 - b) Remove air from steam lines
 - c) Remove gases from steam lines
 - d) None of the above

Q127. In a Centrifugal Pump, when delivery valve is fully closed, the pressure of the fluid inside the pump will:

- a) Increase
- b) Reduce
- c) Remain unaltered
- d) Becomes zero
- Q128. The clearance between two matching surfaces is accurately checked by:
 - a) Optical gauge
 - b) Snap gauge
 - c) Feeler gauge
 - d) All of the above
- Q129. The three essentials for good combustion are:
 - a) Fuel, air and ignition energy
 - b) Time, temp. and turbulence
 - c) Air ignition energy & small particle size
 - d) More volatile matter, air & ignition energy.
- Q130. The cavitation in a centrifugal pump is caused by:
 - a) High Velocity of fluid
 - b) Low barometric pressure
 - c) Low pressure of fluid
 - d) All of the above.

Q131. A device attached to the steam chest whose function is to keep the steam pressure with in allowable limit is known as:

- a) Fusible plug
- b) Blow off cock
- c) Water level indicator
- d) Safety valve

Q132. Air pre-heater in a boiler will invariably be located between:

- a) Economizer & Feed Pump
- b) Boiler furnace & chimney
- c) Forced draft fan & furnace
- d) Condense & feed pump

Questions with True/False option:

- 1. Before starting any equipment, Operation Engineer must confirm that all permits have been cancelled and interlock & protection is available. (True/False)
- 2. Heavy fuel oil firing can be done simultaneous with light diesel oil firing. (True/False)
- 3. Blowdown is compulsorily given irrespective of impurity quantity in steam/water in the boiler. (True/False)
- 4. Routine checking of equipment is carried out irrespective of its operating condition. (True/False)
- 5. HP & LP heaters can be charged from water side before rolling of turbine. (True/False)
- 6. Maintaining hard copies of all operational data is mandatory. (True/False)
- 7. Sand blasting is the removal of dirt from a blade by a jet carrying abrasives. (True/False)
- 8. A near miss does not result in injury, illness and damage or product loss. (True/False)