

Jindal Steel And Power Technical Questions

Q1. The amount of heat required to raise the temperature of 1kg of water through 1 degree celcius is called -----

ANS: specific heat at constant pressure

Q2. The internal resistance which the body offers to meet with two load or ext force is called---

ANS: stress

Q3. The ratio of specific heat of a liquid to that of specific heat of standard liquid---

ANS: specific gravity

Q4. What is the principle on which centrifugal compressors works ---

ANS: conversion of K.E to potential energy

Q5. A chemical fuel is a substance which releases _____ on combustion.

ANS: heat energy

Q6. _____ has a non linear stress strain curve.

ANS: Rubber

Q7. Which of the following is correct? -----

ANS: absolute pressure = gauge pressure + atmospheric pressure

Q8. In roto dynamic pump the increase in energy level is due to ---

ANS: pressure energy only

Q9. A _____ pair is a pair of 2 equal and opposite forces acting on body in such a way that the lines of action of 2 forces are not in same straight line.

ANS: couple

Q10. The Fourier law of conduction---

ANS: $Q = -K.a. dt/dx$

Q11. The force which do not meet at one point and line of action do not lie on the same plane is known as _____ force.

Q12. Source of energy is ---

ANS: coal, oil, uranium

Q13. Which of the gears is recommended for speed reduction ---

ANS: 50:1

Q14. The % of oxygen by weight in atmosphere is ---

ANS: 23

Q15. The condition of equilibrium for coplanar non concurrent forces are ----

ANS: $\sum H=0$, $\sum V=0$, $\sum M=0$.

Q16. Due to which of the following reasons, the flexible coupling is used----

ANS: easy to resemble

Q17. The value of universal gas constant-----

ANS: 8.314 k J/kg degree K

Q18. _____ springs are used to absorb shocks and vibrations.

ANS: torsion

Q19. _____ has a highest value of Poisson's ratio.

ANS: Rubber

Q20. The ignition quality of petrol engine fuel is-----

ANS: octane number

Q21. For the petrol engine for vehicles the air fuel ratio for maximum power generation is of the order of----

ANS: 12:1

Q22. Why feasible plug is fitted in a small boiler?

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ANS: To extinguish fire if water level in boiler falls below alarming limit

Q23. Draught which chimney produces is called----

ANS: Natural draught

Q24. What is equivalent evaporation?

ANS: It is the amount of water evaporated from and at 100 degree celsius into dry saturated steam.

Q25. _____ is a non +ve displacement compressor.

ANS: Reciprocating compressor

Q26. In a ball bearing _____-made harder than stress.

ANS: Ball

Q27. Hardness is the measure of ---

ANS: Toughness

Q28. If $e=0$ the bodies are ---

ANS: Perfectly elastic

Q29. In cross belt drives the power transmission between pulley rotations is ---

ANS: Opposite disc

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Q30. The material having same elastic property in all direction are called as _____ materials.

ANS: Isotropic

Q31. The bar c/s, A is subjected to a tensile force P the normal stress as on oblique plane will be max when inclination of plane to the axis of bar ----.

ANS: 45 degree

Q32. In which of the following cases unsteady heat flow occurs-----.

ANS: Annealing or casing

Q33. The monochromatic emissivity of white body at all wave lengths and temperature is equal to-----.

ANS: Unity

Q34. Due to which of the following reasons hydrogen cannot be liquified at room temperature----- .

Q35. Equilibrium condition for coplanar concurrent forces are---.

ANS: $\sum H=0$, $\sum V=0$

Q36. The working of which of the following hydraulic units is based on Pascals law---.

ANS: Hydraulic press

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Q37. The centrifugal pump calculation is reduced by ---.

ANS: Reducing the suction level

Q38. The flow is said to be turbulent when $Re > 4000$

Q39. The tendency of an unclosed body to be lifted up in the fluid due to upward force opposite to gravity-----.

ANS: Buoyancy

Q40. An ice cube is floating in a glass of water, as cube melts water level -----.

Q41. $Re = \text{inertia force} / \text{viscous force}$

Q42. In a cantilever beam of length l causing a load along intensity varying uniformly from 0 at the free end to upper unit runs at fixed end. The maximum bending is ---.

ANS: $WL^2/3$

Q43. The point of contraflexure in a load and deforms to the section---.

ANS: Bending moment changes sign

Q44. A simply supported beam of span L is carrying a point load W at the mid span, what is the deflection at the center of beam---.

ANS: $WL^3/48EI$

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Q45. Which of the following is a theories suitable for ductile material?

ANS: Maximum shear stress theory

Q46. In India largest power plant is located at----

ANS: Neyveli

Q47. ____ steel is widely used for railway track.

ANS: High carbon

Q48. _____ is the important component which controls the physical properties of steel.

ANS: Carbon

Q49. In resistant welding, pressure is released ---.

ANS: after the weld cools

Q50. Which of the following casting methods are steel and cast iron pipes cast---

ANS: Centrifugal casting

Q51. When the speed of engine fluctuates continuous above and below mean speed, the governor is said---

ANS: Hunting.