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1. Studies of Desert is  
A) Pedology                      B) Oncology                      C) Ophthalmology                      D) Eramotology
2. The river separates India as North and South  
A) Godavari                      B) Narmada                      C) Krishna                      D) Cauvery
3. Name the Country which announced the withdrawal from the Paris Climate Agreement in 2017.  
A) U.K.                      B) China                      C) U.S.A.                      D) India
4. The electricity project in Kerala which produced from waves is  
A) Vizhinjam                      B) Nallalam                      C) Kakkad                      D) Mankulam
5. The first Five Year Plan was launched in the year of  
A) 1947                      B) 1950                      C) 1951                      D) 1952
6. 'Veenapoovu' is written by  
A) Vallathol                      B) Kumaranasan  
C) Ullur                      D) O. N. V. Kuruppu
7. Gandhiji's remark "a post dated cheque on a crumbling bank" is regarding the proposal of  
A) Crips Mission                      B) Round Table Conference  
C) Quit India Movement                      D) Simon Commission
8. KIIFB stands  
A) Kerala Industrial Investment Fund Board  
B) Kerala Infrastructure Investment Finance Board  
C) Kerala Industrial Infrastructure Fund Board  
D) Kerala infrastructure Investment Fund Board
9. Name the Indian Prime Minister who unveiled the statue of Ayyankali at Kowdiar Square Thiruvananthapuram.  
A) Jawaharlal Nehru                      B) Lal Bahadur Shastri  
C) Manmohan Singh                      D) Indira Gandhi
10. The First Uranium mining in India  
A) Halody                      B) Kolar                      C) Gaduguda                      D) Panna

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11. The soil which suitable for Mangroves  
A) Peat Soil  
B) Alluvial Soil  
C) Red Soil  
D) Regular Soil
12. The first Director General of Archeological Survey of India is  
A) Mortimer Wheeler  
B) Alexander Cunningham  
C) John Marshal  
D) R. D. Banarjee
13. 'Nannans' were the rulers of  
A) Ezhimalai  
B) Kochi  
C) Kozhikode  
D) Perumpadappu
14. The total area of the lake 'Sasthamkotta' is  
A) 8 km  
B) 6 km  
C) 5 km  
D) 4 km
15. 'Champions Trophy' is associated with  
A) Hockey  
B) Cricket  
C) Football  
D) Chess
16. The name of Dr. Palppu, the social reformer in Kerala is  
A) Ramachandran  
B) Kunhikkannan  
C) Padmanabhan  
D) Narayanan
17. *The National People's Party* was formed by  
A) Irom Sharmila  
B) Rajini Kant  
C) Chiranjeevi  
D) P. A. Sangma
18. Which may be considered as the Heart and Soul of Indian Constitution ?  
A) Directive Principles  
B) Fundamental Rights  
C) Preamble  
D) Human Rights
19. India doesn't share its boundary with which of the following countries ?  
A) Bhootan  
B) Thaivan  
C) Myanmar  
D) Afghanistan
20. The Governor of the Reserve Bank of India is  
A) Urjit Patel  
B) Raghuram Rajan  
C) D. Subbarao  
D) Y. V. Reddy

A

21. Simplex method is the method used for  
A) Value analysis  
B) Linear programming  
C) Network analysis  
D) Work sampling
22. Work done in free expansion is  
A) Zero  
B) Minimum  
C) Maximum  
D) Negative
23. A cycle consisting of one constant pressure, one constant volume and two is entropic process is known as  
A) Carnot cycle  
B) Stirling cycle  
C) Otto cycle  
D) Diesel cycle
24. The amount of heat required to raise the temperature of unit mass of gas through one degree at constant volume, is called  
A) Specific heat at constant volume  
B) Specific heat at constant pressure  
C) Entropy  
D) Enthalpy
25. A fluid is said to be ideal, if it is  
A) Incompressible  
B) Inviscous  
C) Inviscous and incompressible  
D) Inviscous and compressible
26. The ability of the material to resist softening at high temperature is known as  
A) Creep  
B) Hot hardness  
C) Fatigue  
D) Super hardening
27. Gantt chart is used for  
A) Inventory control  
B) Machine repair schedules  
C) Material handling  
D) Production schedule
28. When acetylene volume is greater than oxygen volume, the flame obtained in gas welding is known as  
A) Carburizing flame  
B) Neutral flame  
C) Oxidizing flame  
D) Inner cone
29. Projection welding is a  
A) Continuous spot welding process  
B) Arc welding process  
C) Process used for joining square bars  
D) Multi-spot welding process



30. The algebraic difference between the maximum limit and basic size is called
- A) Fundamental deviation                      B) Actual deviation  
C) Upper deviation                              D) Lower deviation
31. The compression ratio for petrol engine is
- A) 3 to 6    B) 15 to 20  
C) 5 to 8    D) 20 to 30
32. Motion of the cam is transferred to the valves through
- A) Rocker arms                                      B) Valve stems  
C) Pistons    D) Camshaft
33. The volumetric change of the fluid caused by a resistance is known as
- A) Adhesion                                        B) Cohesion  
C) Volumetric index                              D) Compressibility
34. The compression ratio of an IC engine is the ratio of
- A) Total cylinder volume to swept volume  
B) Swept volume to clearance volume  
C) Total cylinder volume to clearance volume  
D) Pressure after compression to that of before compression
35. All fluids exerts
- A) Pressure in the direction of flow  
B) Pressure in the direction of force of gravity  
C) Equal pressure in X, Y, Z plane  
D) Equal pressure in all directions
36. Malleability of a material can be defined as
- A) Ability to recover its original form  
B) Ability to undergo large permanent deformation in compression  
C) Ability to undergo large permanent deformation in tension  
D) None of the above
37. The slow plastic deformation of metals under a constant stress is known as
- A) Creep    B) Endurance  
C) Plastic deformation                            D) Fatigue

38. Which of the following wage incentive plan guarantees minimum wage to worker and bonus is paid for fixed percentage of time saved ?
- A) Gantt  
B) Rowan plan  
C) Halsey plan  
D) Emerson's efficiency plan
39. Mercury does not wet glass. This is due to property of liquid known as
- A) Adhesion  
B) Cohesion  
C) Surface tension  
D) Viscosity
40. The processes occurring in open system which permit the transfer of mass to and from the system, are known as
- A) Non-flow processes  
B) Flow processes  
C) Adiabatic processes  
D) None of these
41. The aim of value engineering is to
- A) Minimise the cost without change in quality of the product  
B) To determine the selling price of a product  
C) To find the depreciation value of a machine  
D) All of the above
42. Mild steel belongs to the following category.
- A) Medium carbon steel  
B) High carbon steel  
C) Alloy steel  
D) Low carbon steel
43. The operation of producing cup shaped parts from flat sheet metal blanks by bending and Plastic flow of metal, is known as
- A) Squeezing  
B) Coining  
C) Drawing  
D) Planishing
44. Segmental chips are formed during machining
- A) Mild steel  
B) High speed steel  
C) High carbon steel  
D) Cast iron
45. Density of water is maximum at
- A) 0°C  
B) 0°K  
C) 20°C  
D) 4°C

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46. Which of the following is dimension less ?  
A) Specific gravity  
B) Specific weight  
C) Specific volume  
D) Specific speed
47. Job evaluation is the method of determining the  
A) Value of overall production  
B) Worker's performance on job  
C) Relative values of a job  
D) Worth of the machine
48. The information provided by the oxygen sensor to the feedback control system is about the  
A) Air temperature  
B) Air-fuel ratio  
C) Air flow speed  
D) Exhaust gas volume
49. The torque available at the contact between driving wheels and road is known as  
A) Tractive effort  
B) Clutch effort  
C) Brake effort  
D) None of these
50. Isotropic materials are those which have the same elastic properties  
A) Stress induced in all directions  
B) Thermal properties in all directions  
C) Density throughout  
D) Elastic properties in all directions
51. The bulk modulus of elasticity with increase in pressure  
A) Decreases  
B) Increases  
C) Remains constant  
D) Unpredictable
52. Which of the following cycles uses air as the refrigerant ?  
A) Ericsson  
B) Bell Coleman  
C) Stirling  
D) Carnot
53. One ton of refrigeration corresponds to  
A) 80 kcal/min  
B) 50 kcal/min  
C) 80 kcal/hr  
D) 1000 kcal/day
54. The moisture in a refrigerant is removed by  
A) Evaporator  
B) Safety relief valve  
C) Dehumidifier  
D) Driers

A



55. In vapour compression cycle, the condition of refrigerant is high pressure saturated liquid
- A) Before entering the expansion valve
  - B) Before passing through the condenser
  - C) Before entering the compressor
  - D) After passing through the condenser
56. Delta iron occurs at a temperature of
- A) Between 910°C and 1400°C
  - B) Between 1400°C and 1539°C
  - C) Above the melting point
  - D) None of the above
57. Super conduction by metals is observed in the temperature range of
- A) Above 1000°C
  - B) Above 100°K
  - C) Above 100°C
  - D) Below 100K
58. Which of the following constituents of steel is softest and least strong ?
- A) Austenite
  - B) Ferrite
  - C) Pearlite
  - D) Bainite
59. Ammonia – absorption refrigeration cycle requires
- A) Very little work input
  - B) Zero work input
  - C) Maximum work input
  - D) Nearly same work input as for vapour compression cycle
60. The main object of scientific layout is
- A) To minimize production delays
  - B) To produce better quality products
  - C) To utilize maximum floor area
  - D) All of the above
61. The diagram which shows the correct crank positions corresponding to the opening and closing of the valves, is known as
- A) P-V diagram
  - B) Valve timing diagram
  - C) Indicator diagram
  - D) Axial force diagram



69. The air standard efficiency of an Otto cycle compared to diesel cycle for the given compression ratio is
- A) More  
B) Same  
C) Less  
D) Unpredictable
70. If the intake air temperature of IC engine increases, its efficiency will
- A) Unpredictable  
B) Remains same  
C) Depend on other factors  
D) Decrease
71. An important characteristic of vapour absorption refrigeration system is
- A) Noisy operation  
B) Cool below 0°C  
C) Quiet operation  
D) Very little power consumption
72. Micro motion study involves following number of fundamental hand motions.
- A) 8 numbers  
B) 16 numbers  
C) 24 numbers  
D) 20 numbers
73. If the radius of the wire stretched by a load is doubled, then its Young's modulus will be
- A) Doubled  
B) Halved  
C) Remain unaffected  
D) Become four times
74. Hooke's law states that stress is directly proportional to strain up to
- A) Limit of proportionality  
B) Yield point  
C) Elastic limit  
D) Breaking point
75. The unit of Young's modulus is
- A) kg/cm  
B) N-m  
C) kg-m  
D) kg/cm<sup>2</sup>
76. The property of the material which enables it to resist fracture due to high impact load is known as
- A) Toughness  
B) Resilience  
C) Strength  
D) Endurance
77. Electric furnaces usually operate up to a temperature of
- A) 1000°C  
B) 2200°C  
C) 1700°C  
D) 5000°C

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78. Pit furnace can be used for the melting of  
A) Cast iron  
B) Brass  
C) Aluminium  
D) Any one of the above
79. Flux used in cupola furnace while melting cast iron is  
A) Lime stone  
B) Molasses  
C) Coke slurry  
D) Any one of the above
80. The amount of draft required does not depends up on  
A) Moulding method  
B) Shape and size of the casting  
C) Material of the pattern  
D) None of the above
81. Stainless steel is so called because of its  
A) High strength  
B) Corrosion resistance  
C) Brittleness  
D) High ductility
82. In white cast irons, carbon present as \_\_\_\_\_  
A) Graphite flakes  
B) Graphite nodules  
C) Carbon does not exist  
D) Cementite
83. Usual casting method for making dental crowns  
A) Sand casting  
B) Investment casting  
C) Continuous casting  
D) Die casting
84. Which one of the following saw is having a reinforcement strip (rib) on its back ?  
A) Hand saw  
B) Tenon saw  
C) Coping saw  
D) Feat saw
85. Which chisel should never be used with a mallet ?  
A) Firmer chisel  
B) Gauge chisel  
C) Mortise chisel  
D) Paring chisel
86. A two high rolling mill consists of two rollers which rotates  
A) At the same speed and in the same direction  
B) At the same speed but in opposite direction  
C) At different speed and in the same direction  
D) At different speed and in the opposite direction

A



87. The flux commonly used in brazing is
- A) Zinc chloride
  - B) Ammonium chloride
  - C) Borax
  - D) Rosin plus alcohol
88. In arc welding, the temperature of heat produced by the electric arc is of the order of
- A) 3000°C to 4000°C
  - B) 4000°C to 5000°C
  - C) 5000°C to 6000°C
  - D) 6000°C to 7000°C
89. The operation of cutting of a flat sheet to the desired shape is called
- A) Blanking
  - B) Shearing
  - C) Piercing
  - D) Punching
90. Good surface finish and better dimensional accuracy can be achieved in
- A) Hot working
  - B) Cold working
  - C) Both A) and B)
  - D) None of the above
91. Hot working process is the plastic deformation of metal which is carried out
- A) At temperature below the recrystallisation temperature
  - B) At the melting temperature of the metal
  - C) At temperature above the recrystallisation temperature
  - D) None of the above
92. Principle of unit load state that
- A) Materials should be moved in lots
  - B) One unit should be moved at a time
  - C) Both A) and B)
  - D) None of the above
93. Fork lift is used for
- A) Lifting and lowering
  - B) Vertical transportation
  - C) Both A) and B)
  - D) None of the above
94. Gas molecules that absorb thermal infrared radiation and are present in large quantity to change climate system are known as
- A) Alpha radiations
  - B) Beta radiations
  - C) Ozone gases
  - D) Greenhouse gases



95. The most efficient method of compressing air is to
- A) Adiabatically
  - B) Isothermally
  - C) Polytropically
  - D) None of the above
96. What does the symbol 'O' imply in work study ?
- A) Inspection
  - B) Transport
  - C) Operation
  - D) Delay
97. Axial flow pump is started with its delivery valve
- A) Fully closed
  - B) Kept fully open
  - C) Kept 50% open
  - D) None of these
98. Multistage centrifugal pump casing, the flow of water leaving the impeller, is
- A) Rectilinear flow
  - B) Radial flow
  - C) Free vortex motion
  - D) None of the above
99. Connecting rods are generally of the following form.
- A) Forged round section steel
  - B) Cast steel triangular section
  - C) Forged square section
  - D) Forged I section steel
100. The molecules in a solid move
- A) In a random manner
  - B) Back and forth like tiny pendulums
  - C) In circular motion
  - D) In a haphazard way



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Space for Rough Work



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