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1. The term forging refers to :
(A) Plastic deformation (B) Elastic deformation
(C) Stress deformation (D) Strain reveling
2. A very difficult forgable material is :
(A) Maraging Steel (B) Beryllium
(C) Magnesium alloy (D) Nickel alloy
3. The highly elastic material is :
(A) Rubber (B) Brass (C) Glass (D) Steel
4. Slow and progressive deformation is called :
(A) Resilience (B) Malleability (C) Creep (D) Plasticity
5. When a material is subjected to cyclic periodic loading, the property occurring is :
(A) Creep (B) Fatigue (C) Hardness (D) Ductility
6. Hooke's Law states that :
(A) $\text{Stress} \times \text{Strain} = \text{Constant}$ (B) $\text{Strain} - \text{Stress} = \text{Constant}$
(C) $\frac{\text{Stress}}{\text{Strain}} = \text{Constant}$ (D) $\text{Stress} + \text{Strain} = \text{Constant}$
7. The process of forming new grain structure with reduced grain size when a metal is heated and deformed is called :
(A) Re-crystallisation (B) Crystallisation
(C) Melting (D) Deforming

8. Hot working temperature of steel is :
(A) 370 – 455°C (B) 760 – 925°C (C) 315°C (D) 1100 – 1260°C
9. Length of work piece is reduced by :
(A) Upsetting (B) Fullering (C) Flattening (D) Piercing
10. The cooling medium in normalising is :
(A) Water (B) Oil
(C) Air (D) Artificial Coolants
11. Pure Iron melts at :
(A) 380°C (B) 760°C (C) 370°C (D) 1539°C
12. Martensite is :
(A) Ductile (B) Hard (C) Soft (D) Brittle
13. Toughness is the ability to absorb :
(A) Impact (B) Stresses (C) Load (D) Heat
14. Heat treatment is done to change :
(A) Magnetic properties of metal (B) Physical properties of metal
(C) Mechanical properties of metal (D) Electrical properties of metal
15. Which of the below is **not** a surface hardening process ?
(A) Nitriding (B) Carburising (C) Cyaniding (D) Annealing
16. A brittle material is :
(A) Mild steel (B) Cast iron
(C) Low carbon steel (D) Plastic

17. Gamma Iron has the crystal structure of :
(A) bcc (B) sc (C) hep (D) fcc
18. The property by which a material absorbs energy without plastic deformation is :
(A) Resilience (B) Hardness (C) Tensile Strength (D) Toughness
19. In forging operation, work piece is usually subjected to :
(A) Tensile stress (B) Shear stress
(C) Bending stress (D) Compressive stress
20. Forging is a :
(i) Hot working operation
(ii) Cold working operation
(iii) Operation that involves pressing
Of these statements :
(A) (i) is true (B) (ii) and (iii) are true
(C) (ii) is true (D) (i) and (iii) are true
21. Hot die forging is also known as :
(A) Roll forging (B) Embossing
(C) Isothermal forging (D) Precision forging
22. The body of Anvil is made of :
(A) Mild steel (B) High carbon steel
(C) High speed steel (D) Cast iron
23. In Anvil, hardie hole is used for :
(A) Bending rods of small diameters (B) Hot punching operation
(C) Holding square shanks (D) Cutting operation

24. In smithy operation, for general pick up work :
(A) Straight - lip fluted tong is used (B) Flat tong is used
(C) Gad tong is used (D) Ring tong is used
25. Necking down of work piece is done by :
(A) Swages (B) Fullers (C) Flatters (D) Set hammer
26. Flux used in forge welding is :
(A) Calcined Borax (B) Silica
(C) Nitric Oxide (D) Calcium Carbonate
27. The method of preparing metal pieces for forge welding is called :
(A) Filling (B) Jumping (C) Reaming (D) Scarfing
28. Drop forging comes under :
(A) Smith die forging (B) Impression die forging
(C) Power forging (D) Hand forging
29. Forging process for shaping round bars is called :
(A) Press forging (B) Rotary forging (C) Drop forging (D) Billet
30. Iron with little or no carbon is called :
(A) Ferrite (B) Sorbite (C) Pearlite (D) Martensite
31. The hardening response of steel to heat treatment is measured by :
(A) Brinell Test (B) Jominy Test (C) Morse Test (D) Knoop Test
32. Which of the following metal is magnetic ?
(A) Aluminium (B) Nickel (C) Copper (D) Magnesium

33. The metal used for die casting is :
(A) Copper (B) Magnesium (C) Zinc (D) Lead
34. Metal with low melting point is :
(A) Lead (B) Tin (C) Zinc (D) All the above
35. Galvanization is the process of coating :
(A) Tin (B) Zinc (C) Nickel (D) Copper
36. Age hardening of non-ferrous metals is called :
(A) Case hardening (B) Nitriding
(C) Precipitation hardening (D) Surface hardening
37. Dolomite is an important ore of :
(A) Lead (B) Copper (C) Magnesium (D) Aluminium
38. The process of making blind holes is :
(A) Piercing (B) Punching (C) Blocking (D) Bending
39. The process of hammering a heated bar into aligned die cavity is called :
(A) Press forging (B) Drop forging (C) Roll forging (D) Rotary forging
40. Pitting of the forging surface is caused by :
(A) Slag (B) Over heating (C) Scale (D) Low heating
41. The defect occurred in some alloy steel due to rapid cooling from forging temperature is :
(A) Creep (B) Flakes (C) Cracks (D) Dents

42. The defect caused by misalignment between top and bottom forging dies is called :
(A) Fins and rags (B) Die shift (C) Cracks (D) Hair cracks
43. Simple way to remove scale from a forged part is :
(A) Using steam and compressed air (B) Pickling
(C) Tumbling process (D) Blast cleaning
44. The final treatment after forging is done to :
(A) Remove stresses (B) Make the forged parts cool
(C) Make the forging hard and tough (D) To clear cracks
45. Flat forging of gear blanks are usually done by :
(A) Upsetting (B) Downsetting (C) Hammering (D) Squeezing
46. During tempering, forged parts are cooled using :
(A) Oil (B) Water (C) Air (D) Coolants
47. The mechanism used in presses for freeing the work piece from a die is called :
(A) Die set (B) Knock out (C) Stroke (D) Stripper
48. The process of thinning the walls of a shell by forcing it through a die with a punch is called :
(A) Bending (B) Rolling (C) Re-drawing (D) Ironing
49. Vacancy is :
(A) Point defect (B) Line defect (C) Surface defect (D) Volume defect
50. Which one of the below is used to eliminate coarse grained structure :
(A) Annealing (B) Tempering (C) Cyaniding (D) Normalising

51. Quenching is the process of :
(A) Rapid cooling of metals (B) Slow cooling of metals
(C) Intermediate cooling of metals (D) Heating of metals
52. The ability of the material to resist deformation is :
(A) Ductility (B) Creep (C) Fatigue strength (D) Stiffness
53. Poisson's ratio is the ratio between :
(A) Strain to longitudinal stress (B) Transverse strain to axial strain
(C) Longitudinal stress to axial strain (D) Longitudinal stress to strain
54. For ductile materials, factor of safety is :
(A) $\frac{\text{Ultimate stress}}{\text{Design stress}}$ (B) $\frac{\text{Induced stress}}{\text{Design stress}}$ (C) $\frac{\text{Yield stress}}{\text{Design stress}}$ (D) $\frac{\text{Design stress}}{\text{Yield stress}}$
55. Carbon content in cast iron is :
(A) 3.2 – 5.2% (B) 2.1 – 4.5% (C) 8.3 – 9.2% (D) 1.2 – 2%
56. The hardest known material is :
(A) High speed steel (B) Carbides (C) Ceramics (D) Diamond
57. The ability of a material that can be drawn into thin wire is :
(A) Hardness (B) Tensile strength (C) Creep (D) Ductility
58. Alloying of vanadium increases :
(A) Toughness and wear resistance of steel
(B) Hardenability of steel
(C) Oxidation resistance of steel
(D) Corrosion resistance

59. The purest iron is :
(A) Wrought iron (B) Pig iron (C) Electrolytic iron (D) Cast iron
60. TTT stands for :
(A) Time Temperature Transformation
(B) Temperature Toughness Time
(C) Toughness Transformation Time
(D) Total Time Transformation
61. The welding accompanied by the application of pressure is :
(A) Gas welding (B) Fusion welding (C) Plastic welding (D) Arc welding
62. The change of state of alloys due to variation in temperature and concentration is represented by :
(A) Phase rule (B) Phase diagram
(C) Equilibrium diagram (D) Graphs
63. The fuel used in hearth is :
(A) Coke (B) Wood (C) Methane (D) Oil
64. The forging temperature of wrought iron is :
(A) $800 - 1150^{\circ}\text{C}$ (B) $900 - 1300^{\circ}\text{C}$ (C) $750 - 1250^{\circ}\text{C}$ (D) $400 - 500^{\circ}\text{C}$
65. An English anvil has :
(A) Two beaks (B) No beaks (C) Three beaks (D) One beak
66. Swage block is made of :
(A) Mild steel (B) HSS (C) Cast iron (D) High carbon steel

67. Open mouth tong is used to hold :
(A) Heavier stock (B) Round stock (C) Square stock (D) Ductile stock
68. Cold chisel has a cutting angle of :
(A) 45° (B) 30° (C) 50° (D) 60°
69. Necking down of a work is done by :
(A) Set hammer (B) Punches (C) Fullers (D) Square punch
70. Before scarf welding the ends of work pieces are :
(A) Made square (B) Rounded (C) Filed (D) Cooled
71. The forging machine working by pressure are called :
(A) Hammers (B) Pressure hammers
(C) Presses (D) Ramming machine
72. The common mass of Anvil is about :
(A) 150 kg (B) 200 kg (C) 100 kg (D) 250 kg
73. The vice commonly used in smithy is :
(A) Hand vice (B) Bench vice (C) Carpenter's vice (D) Leg vice
74. The angle of double cut file is :
(A) 60° and 80° (B) 60° and 70° (C) 80° and 50° (D) 45° and 60°
75. The material for hacksaw blade is :
(A) HCS (B) HSS (C) Tool steel (D) Vanadium steel

76. Prick punch has an approximate included angle of :
(A) 30° (B) 90° (C) 35° (D) 40°
77. Least count of steel rule is :
(A) 0.5 mm (B) 0.05 mm (C) 0.25 mm (D) 0.1 mm
78. For smithy operation an anvil used to hold small work piece is :
(A) Bench vice (B) Hand vice (C) Bick iron (D) Leg vice
79. Tool used to level and finish the corners of flat surfaces is :
(A) Set hammer (B) Fuller (C) Drift (D) Swage
80. Effective length of a file is the distance from :
(A) Point to the heel (B) End of handle to the point
(C) Tang to edge (D) Tang to point
81. The River which originated from the "Gaymukh" cave of Himalaya :
(A) Ganga (B) Brahmaputhra (C) Sindhu (D) Tapti
82. The Indian Museum situated in the place of :
(A) Kolkatta (B) Mumbai (C) Delhi (D) Kanpur
83. The institution which calculates India's national income :
(A) Central Statistical Organisation (B) Planning Commission
(C) National Development Council (D) Finance Ministry
84. National Rural Employment Guarantee Act was passed in the year :
(A) 2004 (B) 2006 (C) 2008 (D) 2005

85. The architect of first five year plan of India is :
(A) R. Rangarajan (B) K.M. Raj
(C) J.C. Kumarappa (D) P.C. Mahalanobis
86. The Cashewnut Research Station of Kerala is existed in :
(A) Panniyur (B) Vellanikkara (C) Anakkayam (D) Pattambi
87. 'Ashtamudi kayal' existed in the district of :
(A) Kottayam (B) Ernakulam (C) Alappuzha (D) Kollam
88. The District with least coastal plains :
(A) Ernakulam (B) Kollam (C) Kannur (D) Kasaragode
89. The town 'Cheruthuruthy' situated on the River bank of :
(A) Kadalundi (B) Bharathapuzha (C) Periyar (D) Chaliyar
90. Name the agitation started in Kerala as a protest against the constitutional reforms of 1932 :
(A) Channar revolt (B) Kayyur riot
(C) Punnappra vayalar agitation (D) Nivarthana agitation
91. The founder of 'Prathyaksha Raksha Daivasabha (PRDS) was :
(A) Ayyankali (B) Pandit Karuppan
(C) Kumara Guru (D) Kumaranasan
92. Who conducted 'Yachana Yathra' from Trichur to Kasaragode to collect money for the programme of educational reforms ?
(A) Poikayil Yohannan (B) Dr. Palpu
(C) V.T. Vattatirippad (D) Chattampi Swamikal

93. Identify the founder of 'Ananda Mahasabha' :
(A) Ayya Vaikundar (B) Kumaranasan
(C) Brahmanada Sivayogi (D) Mannathu Padmanabhan
94. When did Father Kuriakose Elias Chavara was beatified by Pope John Paul II ?
(A) 1986 (B) 1976 (C) 1982 (D) 1988
95. The district which firstly declared as 'Smoke Free District' in India :
(A) Kottayam (B) Kozhikkode (C) Ernakulam (D) Alappuzha
96. Name the literary works which secured Odakkuzhal award in 2013 :
(A) Marupiravi (B) Manushyanu Oru Amukham
(C) Aarachar (D) Ammakku Oru Tharattu
97. The first Malayalam University of Kerala is setup in the District of :
(A) Kannur (B) Kozhikkode (C) Palakkad (D) Malappuram
98. How many digits consists in the unique id number of AADHAR ?
(A) 11 (B) 12 (C) 10 (D) 13
99. 'Operation New Dawn' is the beginning of stability in :
(A) Afganisthan (B) Iran (C) Iraq (D) Sudan
100. The Bodo language is spoken in the state of :
(A) Mizoram (B) Tripura
(C) Arunachal Pradesh (D) Assam

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