



**13. Which method of surface hardening is done in a heated salt bath ?**

- A) Nitriding
- B) Gas carburising
- C) Pack carburising
- D) Liquid carburising

**14. What is the purpose of brine solution, water, oil and air used in heat treatment process?**

- A) Soaking
- B) Quenching
- C) Heating
- D) Hardening

**15. Lower critical temperature of high carbon steel while hardening is -----.**

- |                          |                          |
|--------------------------|--------------------------|
| A) $960^{\circ}\text{C}$ | B) $900^{\circ}\text{C}$ |
| C) $723^{\circ}\text{C}$ | D) $560^{\circ}\text{C}$ |

**16. What is the process to add cutting ability and wear resistance on steel?**

- |                |              |
|----------------|--------------|
| A) Tempering   | B) Annealing |
| C) Normalising | D) Hardening |

**17. Which structure of steel contain 0% carbon?**

- A) Ferrite
- B) Pearlite
- C) Austenite
- D) Cementite

**18. What is the quenching media used in heat treatment to obtain faster rate of cooling?**

- |                   |          |
|-------------------|----------|
| A) Brine solution | B) Air   |
| C) Oil            | D) Water |

**19. Which method of surface hardening, the surface remains free from scales?**

- A) Nitriding
- B) Case hardening
- C) Flame hardening
- D) Induction hardening

**20. What quenching media is used for special alloy steel?**

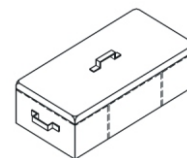
- A) Brine solution
- B) Water
- C) Oil
- D) Air

**21. Heat treatment of metal's is necessary -----.**

- A) To produce certain desired properties
- B) To make good appearance on the component
- C) To increase strength of metal
- D) To avoid the corrosion on metals

**22. What is the method of surface hardening?**

- A) Nitriding
- B) Pack - carburising
- C) Flame hardening
- D) Induction hardening



**23. What is the name of hot steel cooled rapidly to form a new structure?**

- |               |              |
|---------------|--------------|
| A) Ferrite    | B) Austenite |
| C) Martensite | D) Pearlite  |

**24. What is the purpose of annealing?**

- A) To soften the steel
- B) To add cutting ability
- C) To increase wear resistance
- D) To refine the grain structure of the steel

**25. What is the name of process used to remove brittleness induce toughness and shock resistance?**

- |              |                |
|--------------|----------------|
| A) Annealing | B) Hardening   |
| C) Tempering | D) Normalising |

**26. What is the name of the heat treatment process for reheating the hardened steel to a temperature below  $400^{\circ}\text{C}$  followed by cooling?**

- |              |                |
|--------------|----------------|
| A) Annealing | B) Hardening   |
| C) Tempering | D) Normalising |

**27. Taper is a gradually -----.**

- A) Narrowing from the end to other end of object
- B) Smoothly from the end to other end of object
- C) Tightly from the end to other end of object
- D) Normally from the end to other end of object

**28. Due to taper on key it is easy to remove the key and -----.**

- A) Dismantle the joint
- B) Assemble the joint
- C) Fix the permeant of joint
- D) All of the above

**29. Due to taper on cotter it is easy to remove the cotter and -----.**

- A) Dismantle the joint
- B) Assemble the joint
- C) Fix the permeant of joint
- D) All of the above

**30. The normally value of taper on taper pin -----.**

- A) 1 : 50
- B) 1 : 100
- C) 1 : 48
- D) 1 : 24

**31. Which taper is used for without any locking device**

- A) Self holding taper    B) Self- releasing taper
- C) Morse taper            D) Jerno taper

**32. Self realising taper is -----.**

- A) Tool holding Taper
- B) Job holding Taper
- C) All of the above
- D) None of the above

**33. While specifying taper in drawings it should be indicate the -----.**

- A) Size of component and angle of the taper
- B) Metric and Morse taper
- C) Brown and sharp taper
- D) Inch and Milimeter

**34. What is the name of method in metallic coating done by rolling or drawing the layers of metal on the base metal?**

- A) Spraying                      B) Cladding
- C) Enameling                  D) Molten metal bath

**35. When the cotter is driven through slots, it fit, tight due to -----.**

- A) Cutting action
- B) Fitting action
- C) Wedging action
- D) Fastening action

**36. Taper pins is like a -----.**

- A) Dowel pin
- B) Round key
- C) Reamer
- D) None of the above

**37. Tapers pf components are expressed in two ways -----.**

- A) Degree of arc and Gradient
- B) Length of key and its taper
- C) Width of key and its length
- D) Morse Taper and Jerno taper

**38. The shank size indicating the metric taper is the diameter at -----.**

- A) D                                  B) d
- C) d1                                D) d2

**39. Which taper is used for holding and driving cutting tools like drills reamers etc.**

- A) Self holding taper
- B) Self- releasing taper
- C) Morse taper
- D) Jerno taper

**40. Spindle noses and arbors used on milling machines are usually provided with -----.**

- A) Self holding taper
- B) Self- releasing taper
- C) Morse taper
- D) Jerno taper

**41. Which acid is used to clean the surface of mild steel before galvanizing ?**

- A) Hot sulphuric acid
- B) Ammonium chloride
- C) Hot hydrochloric acid
- D) Salt bath

**42. Which of the following is not a purpose of metal spraying ?**

- A) Preventing corrosion
- B) Building up worn out shafts
- C) To increase toughness
- D) Providing wear resistant surface

**43. Which of the following is a non metallic coating process for protecting metal surface from corrosion ?**

- |                |               |
|----------------|---------------|
| A) Shreadising | B) Cladding   |
| C) Enamelling  | D) Calorising |

**44. Corrosion on rust on ferrous metal is a type -- ---- properly**

- |               |                      |
|---------------|----------------------|
| A) Physical   | B) Chemical          |
| C) Mechanical | D) None of the above |

**45. What is the name of the process if the steel is heated up to critical temperature and cooling it very slowly in furnace?**

- A) Annealing
- B) Hardening
- C) Tempering
- D) Normalising

**46. In electroplating, the part which has to plated is connected to of DC supply ?**

- A) Negative pole
- B) Earth pole
- C) Positive pole
- D) None of these

**47. Which cementation process provide chromium rich surface ?**

- A) Sheradising
- B) Galvanizing
- C) Chromising
- D) Calorising

**48. Enamelling on metal surface is done for protecting it from corrosion. Which is not a enamel used for this ?**

- |             |                      |
|-------------|----------------------|
| A) Red Lead | B) Glass powder      |
| C) Alumina  | D) Mixture of quartz |

**49. Other name for anti-corrosive treatment is --- ----.**

- A) Coating
- B) Permanent coating
- C) Protective Treatment
- D) Heat Treatment

**50. What is the name of process in which aluminium powder is coated on steel to prevent corrosion ?**

- A) Cladding
- B) Sherardising
- C) Calorising
- D) Metal Spraying

**SCAN ME**



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**Month -03**

New Syllabus \_2022

**Sector : Capital Goods And Manufacturing**  
**Annual Pattern 2nd Year NSQF Level- 4**  
**INDUSTRIAL TRAINING INSTITUTE**

**3.1****TRADE : FITTER-Sr.****MONTHLY TEST : WEEK NO. 09 TO 12**DATE : **PAPER-I**TRADE CODE : **453****TOTAL MARKS : 100****ANSWER KEY****Note : Attempt all the questions. All questions carry equal marks**

Q.No.	ANS
1	<b>B</b>
2	<b>B</b>
3	<b>B</b>
4	<b>D</b>
5	<b>C</b>
6	<b>D</b>
7	<b>D</b>
8	<b>C</b>
9	<b>A</b>
10	<b>C</b>
11	<b>B</b>
12	<b>B</b>
13	<b>D</b>
14	<b>B</b>
15	<b>C</b>
16	<b>D</b>
17	<b>A</b>
18	<b>A</b>
19	<b>D</b>
20	<b>D</b>
21	<b>A</b>
22	<b>B</b>
23	<b>C</b>
24	<b>A</b>
25	<b>C</b>

Q.No.	ANS
26	<b>C</b>
27	<b>A</b>
28	<b>A</b>
29	<b>A</b>
30	<b>A</b>
31	<b>A</b>
32	<b>A</b>
33	<b>A</b>
34	<b>B</b>
35	<b>C</b>
36	<b>B</b>
37	<b>A</b>
38	<b>A</b>
39	<b>A</b>
40	<b>B</b>
41	<b>A</b>
42	<b>C</b>
43	<b>C</b>
44	<b>B</b>
45	<b>A</b>
46	<b>A</b>
47	<b>C</b>
48	<b>A</b>
49	<b>C</b>
50	<b>C</b>