

18/A/C/S-4/4/E

IS-1

Booklet Series - A

036/227

PAPER - I  
FITTER  
(THEORY)  
SEMESTER-IV

TIME : 3 HRS.

MARKS : 150

Note:- Attempt all the question.

All questions carry equal marks.

This paper carries negative marking. 25% marks will be deducted for each wrong answer.

Choose the correct answer:-

- The purpose of normalizing steel is –
  - Remove induced stresses & refine grain size
  - Improve machinability
  - Soften the steel
  - Increase the toughness and reduce brittleness
- The toughness in a steel is increased and brittleness is decrease by a treatment operation called as –
  - Annealing
  - Normalizing
  - Tempering
  - Case heading
- Heat treatment of metals is necessary?
  - To produce certain desire properties
  - To make good appearance on the component
  - To increase strength of metals
  - To avoid corrosion on metal
- Lower critical temperature of high carbon steel while hardening is
  - 960°C
  - 900°C
  - 723°C
  - 560°C
- What is the main purpose of annealing?
  - To improve machinability & soften the steel
  - To improve magnetism
  - To improve hardness
  - To increase toughness
- While normalizing the steel should be cooled \_\_\_\_\_
  - In still air to room temperature
  - In oil
  - In forced air
  - In water

7. The process of increasing carbon percentage on the surface of low carbon steel is known as-
- (a) Hardening  
(b) Nitriding  
(c) Carburizing  
(d) Tempering
8. Induction coil is made from \_\_\_\_\_ material.
- (a) Mild steel  
(b) Copper  
(c) Tin  
(d) Silver
9. Solder is an alloy of \_\_\_\_\_ & \_\_\_\_\_
- (a) Tin and lead  
(b) Copper and zinc  
(c) Copper and tin  
(d) Brass and zinc
10. Which metal is use for bit of hatched soldering iron?
- (a) Brass  
(b) Copper  
(c) Mild steel  
(d) Cast iron
11. Spelter is alloy of \_\_\_\_\_ & \_\_\_\_\_
- (a) Tin and lead  
(b) Brass and zinc  
(c) Copper and zinc  
(d) None of these
12. Which type of flux are used for brazing?
- (a) Sodium carbonate  
(b) HCl  
(c) Borax  
(d) Resin
13. What is the name of filler metal in brazing?
- (a) Sweating  
(b) Spelter  
(c) Base metal  
(d) Flux
14. Which is main advantage of interchangeability?
- (a) Help for mass production  
(b) Less Rejection  
(c) Part changeable after damages  
(d) All of these

15. Spirit level is used for \_\_\_\_\_
- (a) Testing for machine  
(b) While machine is erected  
(c) For starting of machine  
(d) Foundation of machine
16. \_\_\_\_\_ is necessary for continues better production.
- (a) Routine maintenance  
(b) Break down maintenance  
(c) Preventive maintenance  
(d) None of these
17. \_\_\_\_\_ gauge is used to checking external threads of pipe.
- (a) Thread gauge  
(b) Thread ring gauge  
(c) Centre gauge  
(d) Thickness gauge
18. \_\_\_\_\_ is used for supplying water from main line.
- (a) Valves  
(b) Cock  
(c) Taps  
(d) Union
19. In pipe line fitting accessory used to pipe pieces short or long is called
- (a) Union  
(b) Reducer  
(c) Nipple's  
(d) Plug
20. Generally fitting for big diameter pipe joint \_\_\_\_\_ is used.
- (a) Flange  
(b) Socket  
(c) Plug  
(d) Union
21. Which accessory is used for fitting branch line to main line?
- (a) Union  
(b) Elbow  
(c) Tee  
(d) Flange
22. In pipe fitting which accessory is used for four way pipe fitting?
- (a) Socket  
(b) Elbow  
(c) Tee  
(d) Cross
23. Which accessory is used in pipe fitting of different diameter pipe joint each other for increase the length?
- (a) Socket  
(b) Reducer  
(c) Union  
(d) Flange

24. Which one is used for joint connection in pipe line without any destruction?  
(a) Union (b) Plug  
(c) Socket (d) Cross
25. Which of the following is the including angle of pipe thread?  
(a)  $29^\circ$  (b)  $27.5^\circ$   
(c)  $55^\circ$  (d)  $60^\circ$
26. Which of the following is a form of standard pipe thread?  
(a) B.S.P. (b) B.S.F.  
(c) B.S.W. (d) B.A.
27. In triangle of fire fuel, Heat and \_\_\_\_\_ both three most important Contribution substance.  
(a) Oxygen (b) Fire  
(c) Air (d) Water
28. Which one is use on A class fire?  
(a) Pistol type fire extinguisher (b) Dry powder fire extinguisher  
(c) Foam type fire extinguisher (d) Soda acid type fire extinguisher
29. The process of Electroplating on Metal surface is \_\_\_\_\_.  
(a) Temporary (b) Semi-permanent  
(c) Permanent (d) Above all
30. \_\_\_\_\_ material is use as sheathing material for avoid rust of Telephone and electrical underground wires.  
(a) Nickel (b) Copper  
(c) Lead (d) Tin
31. Which among is the lightest metal?  
(a) Lead (b) Tin  
(c) Aluminium (d) Copper
32. The main mechanical property of aluminium is \_\_\_\_\_.  
(a) Soft (b) Brittle  
(c) Strong (d) Tough

33. Brass is an alloy of \_\_\_\_\_ & \_\_\_\_\_  
 (a) Copper & Tin (b) Lead & Tin  
 (c) Copper & Zinc (d) Copper & Silver
34. Bronze is an alloy of \_\_\_\_\_ & \_\_\_\_\_  
 (a) Copper & Tin (b) Lead & Tin  
 (c) Copper & Zinc (d) Copper & Silver
35. Aluminium is base of \_\_\_\_\_ ore.  
 (a) Iron ore (b) Copper pirate  
 (c) Zinc alloy (d) Boxide
36. \_\_\_\_\_ is the most important non-metal used for electrical equipment because it is electric resistance substance.  
 (a) Plastic (b) Rubber  
 (c) Wood (d) Cement
37. Wood ruff Key having shape of \_\_\_\_\_  
 (a) Taper circular (b) Round  
 (c) Rectangular (d) half moon shape
38. When quick and accurate fastening of two matching part \_\_\_\_\_ is used.  
 (a) Taper key (b) Cotter  
 (c) Pins (d) Saddle key
39. For this coupling two flanges is use for two connecting shaft.  
 (a) Flange coupling (b) Muff coupling  
 (c) Flexible coupling (d) Old ham coupling
40. Cam is used for rotary motion is transfer to \_\_\_\_\_ motion.  
 (a) Flat motion (b) Resipocative  
 (c) High Speed (d) Low speed
41. Jockey pulley is \_\_\_\_\_  
 (a) Increase connecting portion on pulley (b) Gives more power of Driver Pulley  
 (c) It gives various speed of Shaft (d) Step cone pulley has different dia

42. Face of the Pulley is make slightly convex in width. It is called \_\_\_\_\_  
 (a) Flanck (b) Crowning  
 (c) Effective diameter (d) Rim
43. The brass which is used in engineering work alloy 60% \_\_\_\_\_ & 40%  
 (a) Copper & zinc (b) Copper & tin  
 (c) Tin & zinc (d) Tin & lead
44. \_\_\_\_\_ metal alloying with steel make hard and rust proof its melting point is 1615°C.  
 (a) Chromium (b) Nickel  
 (c) Silver (d) Copper
45. The metal which is use for coating sheet because it is anticorrosive metal is  
 (a) Aluminium (b) Tin  
 (c) Zinc (d) Lead
46. For sepret machine independent motor is used called \_\_\_\_\_ drive.  
 (a) Self drive (b) Group drive  
 (c) Open drive (d) None of them
47. For gives varies speed ratio on machine \_\_\_\_\_ pulley is used.  
 (a) Flat Pulley (b) V Groove Pulley  
 (c) Step Cone Pulley (d) Jockey Pulley
48. In use 'V' belt drive avoid defect of \_\_\_\_\_  
 (a) Slippage (b) Crippling  
 (c) Cutting (d) Crowning
49. Pitch circle of gear & height of gear tooth is called \_\_\_\_\_  
 (a) Addendum (b) Dedendum  
 (c) Centre Distance (d) Face
50. The best example of semi-liquid lubricant is \_\_\_\_\_  
 (a) Grease (b) Grafid  
 (c) Castor Oil (d) Lord Oil

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