

Duration: 90 Mins

Total Marks: 38

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1. What is the advantage of jig?

- A) It holds the job B) Cost is very low
C) Hold, locate and guide the tool D) Hold and locate the work

Answer: C) Hold, locate and guide the tool

2. What is the effect, if the cutting speed is more than the recommended?

- A) Reduce the tool life B) Normal tool life
C) Accurate dimension D) Better finish

Answer: A) Reduce the tool life

3. Which is the cheapest tool material?

- A) Diamonds B) High speed steel
C) High carbon steel D) Carbide

Answer: C) High carbon steel

4. Which type of jig is used to hold thin and soft parts?

- A) Trunnion jig B) Channel jig
C) Plat jig D) Sandwich jig

Answer: D) Sandwich jig

5. Calculate the spindle speed to turn a 40mm dia M.S rod using a cemented carbide tool it cutting speed is 92mm/min?

- A) 950 rpm B) 508 rpm
C) 731 rpm D) 685 rpm

Answer: C) 731 rpm

6. What is the tool life index of cemented carbide tool for turning high carbon high chromium die steel?

- A) 0.15 B) 0.4
C) 0.2 D) 0.35

Answer: A) 0.15

7. Which gauge is to be selected for checking the corner radius of the job?

- A) Fillet gauge B) Feeler gauge
C) Plug gauge D) Radius gauge

Answer: D) Radius gauge

8. How many precision rollers required for measuring angle of tapered component?

- A) 3 B) 1
C) 4 D) 2

Answer: D) 2

9. What factor is important in free hand form turning?

- A) Sharp tool B) Unskilled labour
C) Skilled labour D) High speed

Answer: C) Skilled labour

10. What is the recommended cutting speed for turning mild steel using H.S.S tool?

- A) 25-40 m/min B) 40-70 m/min
C) 35-70 m/min D) 35-50 m/min

Answer: D) 35-50 m/min

11. What is the term the distance moved by the tool along the work for each revolution?

- A) Depth B) Speed
C) Cutting speed D) Feed

Answer: D) Feed

12. Calculate the length of metal passing by cutting tool in one revolution if the diameter of work is 75mm and cutting speed is 120m/min.

- A) 485.7 mm B) 295.7 mm
C) 235.5 mm D) 365.3 mm

Answer: C) 235.5 mm

13. Which is the device that can hold, locate and guide the tool?

- A) Chuck B) Fixture
C) Jig D) Collet chuck

Answer: C) Jig

14. What is the name of gauge used to check the radius

- A) Radius gauge B) Feeler gauge
C) Plug gauge D) Fillet gauge

Answer: A) Radius gauge

15. How much percentage of cutting speed could be increased by using super HSS tools?

- A) 5% to 10% B) 15% to 20%
C) 20% to 25% D) 10% to 15%

Answer: B) 15% to 20%

16. Which one is example of ferrous tool material?

- A) Diamonds
C) Carbide tool
- B) High carbon steel
D) Stellite

Answer: B) High carbon steel

17. How the cutting speed is expressed?

- A) Meter/sec
C) Revolution/min
- B) Foot/min
D) Meter/min

Answer: D) Meter/min

18. What is the special benefit of using a fixture?

- A) Slower rate of production
C) Skilled worker required
- B) Faster rate of production
D) Suitable for small batch production

Answer: B) Faster rate of production

19. What does the letter Y stands in the formula $d = Y \sqrt{2(s+r)}$ in taper measurement?

- A) Diameter over rollers at small end
C) Radius of the roller
- B) Diameter over rollers at big end
D) Distance from the centre of the roller to the end of the component

Answer: A) Diameter over rollers at small end

20. What is the recommended cutting speed for aluminium using H.S.S tool?

- A) 70 m/min - 100 m/min
C) 25 m/min - 40 m/min
- B) 35 m/min - 50 m/min
D) 50 m/min - 80 m/min

Answer: A) 70 m/min - 100 m/min

21. What is the recommended feed rate for turning cast iron (grey) using H.S.S tool?

- A) 0.2-1.5 mm/rev
C) 0.15-0.7 mm/rev
- B) 0.2-1.00 mm/rev
D) 0.08-0.03 mm/rev

Answer: C) 0.15-0.7 mm/rev

22. Which gauge is used to check the radius formed at the steps of component?

- A) Plug gauge
C) Fillet gauge
- B) Feeler gauge
D) Radius gauge

Answer: C) Fillet gauge

23. Calculated the rpm of spindle if cutting speed V_c is 120m/min and the diameter D of the job is 50 mm?

- A) 856 rpm
C) 500 rpm
- B) 764 rpm
D) 975 rpm

Answer: B) 764 rpm

24. Which type of jig is used for large awkward shaped piece part is to drilled in many directions?

- A) Trunnion jig
C) Plate jig
- B) Table jig
D) Post jig

Answer: A) Trunnion jig

25. What is the value of tool life index for a cemented carbide tip to machine cast iron component?

- A) 0.128
C) 0.2
- B) 0.125
D) 0.1

Answer: D) 0.1

26. What does the letter 's' stands in the equation $d = Y \sqrt{2(s+r)}$ in taper measurement?

- A) Distance from the centre of the roller to the end of the component
C) Radius of the rollers
- B) Diameter over the roller at large end
D) Diameter over the rollers at small end

Answer: A) Distance from the centre of the roller to the end of the component

27. What defect may occur during grinding a form tool cutting edge?

- A) Thickness of the tool reduced
C) Shape of the form gets altered
- B) Clearance angle changed
D) Form tool getting broken

Answer: C) Shape of the form gets altered

28. What will happen to the tool life if the spindle is running higher speed?

- A) Less
C) More
- B) Medium
D) Very less

Answer: A) Less

29. Find out the R.P.M of spindle for a 50mm bar (D) and cutting speed is 25m/min.

- A) 250rpm
C) 159rpm
- B) 168rpm
D) 100rpm

Answer: C) 159rpm

30. Which one is chief constituent of ferrous tool material?

- A) Vanadium
C) Carbon
- B) Iron
D) Tungsten

Answer: B) Iron

31. Which material is used to make radius gauge?

- A) Hardened steel
C) Cast steel
- B) Tool steel
D) Stainless steel

Answer: A) Hardened steel

32. Which is a non-metallic tool material?

- A) Stellite
C) Diamonds
- B) Carbide
D) High carbon steel

Answer: C) Diamonds

33. Which type of tool is suitable to produce form surface in mass production activities?

- A) Using carbide tipped form tool
- B) High speed steel cutting tool
- C) Using single point cutting tool
- D) High carbon steel tool

Answer: A) Using carbide tipped form tool

34. Which cutting tools have highest cutting efficiency?

- A) Carbide
- B) Mild steel
- C) High carbon steel
- D) High speed steel

Answer: A) Carbide

35. Where the follower is fixed to produce form turning?

- A) Tool part
- B) Tail stock
- C) Cross slide
- D) Top slide

Answer: C) Cross slide

36. Which type of jig locates the piece part from its face?

- A) Plate jig
- B) Post jig
- C) Table jig
- D) Solid jig

Answer: C) Table jig

37. What are the possible surface that can be produced by form turning?

- A) To generating concave and convex profile
- B) To generating cylindrical surface
- C) To generate conical surface
- D) To generate flat surface

Answer: A) To generating concave and convex profile

38. Which gauge is used to position the cutter before cutting in milling fixture?

- A) Screw pitch gauge
- B) Fillet gauge
- C) Radius gauge
- D) Feeler gauge

Answer: D) Feeler gauge
