

Student Name: \_\_\_\_\_ Roll No: \_\_\_\_\_

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

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

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

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

3. What does the letter 's' stands in the equation  $d = Y - 2(s+r)$  in taper measurement?

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

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

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

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

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

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

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

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

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

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

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

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

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

10. What is the advantage of jig?

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

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

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

12. Which cutting tools have highest cutting efficiency?

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

13. Which is the cheapest tool material?

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

22. Which material is used to make radius gauge?

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

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

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

24. 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) 295.7 mm
- B) 485.7 mm
- C) 365.3 mm
- D) 235.5 mm

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

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

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

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

27. How the cutting speed is expressed?

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

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

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

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

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

30. What does the letter Y stands in the formula  $d = Y \cdot (s+r)$  in taper measurement?

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

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

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

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

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

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

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

34. Which one is example of ferrous tool material?

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

35. Which is a non-metallic tool material?

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

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

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

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

A) 500 rpm

B) 975 rpm

C) 764 rpm

D) 856 rpm

using H.S.S tool?

A) 25 m/min - 40 m/min

B) 50 m/min - 80 m/min

C) 70 m/min - 100 m/min

D) 35 m/min - 50 m/min

38. What is the recommended cutting speed for aluminium