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Answer Key

Duration: 30 Mins**Total Marks: 38****Q.ID: ITISKILL4888EU**

1. Which cutting tools have highest cutting efficiency?

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

Answer: B) Carbide

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

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

Answer: C) Trunnion jig

3. 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) 365.3 mm B) 485.7 mm
C) 295.7 mm D) 235.5 mm

Answer: D) 235.5 mm

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

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

Answer: D) Sandwich jig

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

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

Answer: D) 35-50 m/min

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

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

Answer: B) Table jig

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

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

Answer: D) Skilled labour

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

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

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

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

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

Answer: D) Feed

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

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

Answer: D) 0.15

11. What is the advantage of jig?

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

Answer: C) Hold, locate and guide the tool

12. Where the follower is fixed to produce from turning?

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

Answer: C) Cross slide

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

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

Answer: A) Iron

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

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

Answer: B) Reduce the tool life

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

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

Answer: B) 0.15-0.7 mm/rev

16. How the cutting speed is expressed?

A) Revolution/min

B) Meter/min

C) Meter/sec

D) Foot/min

Answer: B) Meter/min

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

A) 508 rpm

B) 731 rpm

C) 685 rpm

D) 950 rpm

Answer: B) 731 rpm

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

A) 4

B) 2

C) 1

D) 3

Answer: B) 2

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

A) Shape of the form gets altered

B) Form tool getting broken

C) Clearance angle changed

D) Thickness of the tool reduced

Answer: A) Shape of the form gets altered

20. Which material is used to make radius gauge?

A) Stainless steel

B) Tool steel

C) Hardened steel

D) Cast steel

Answer: C) Hardened steel

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

A) Radius of the rollers

B) Distance from the centre of the roller to the end of the component

C) Diameter over the roller at large end

D) Diameter over the rollers at small end

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

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

A) 159rpm

B) 168rpm

C) 100rpm

D) 250rpm

Answer: A) 159rpm

23. Which is a non-metallic tool material?

A) Stellite

B) Diamonds

C) Carbide

D) High carbon steel

Answer: B) Diamonds

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

A) Radius gauge

B) Fillet gauge

C) Plug gauge

D) Feeler gauge

Answer: A) Radius gauge

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

A) 764 rpm

B) 500 rpm

C) 856 rpm

D) 975 rpm

Answer: A) 764 rpm

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

A) Plug gauge

B) Radius gauge

C) Feeler gauge

D) Fillet gauge

Answer: D) Fillet gauge

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

A) Suitable for small batch production

B) Skilled worker required

C) Slower rate of production

D) Faster rate of production

Answer: D) Faster rate of production

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

A) Fillet gauge

B) Screw pitch gauge

C) Feeler gauge

D) Radius gauge

Answer: C) Feeler gauge

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

A) 0.128

B) 0.2

C) 0.1

D) 0.125

Answer: C) 0.1

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

A) 15% to 20%

B) 20% to 25%

C) 10% to 15%

D) 5% to 10%

Answer: A) 15% to 20%

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

A) Diameter over rollers at small end

B) Diameter over rollers at big end

C) Radius of the roller

D) Distance from the centre of the roller to the end of the component

Answer: A) Diameter over rollers at small end

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

A) To generate flat surface

B) To generate conical surface

C) To generating cylindrical surface D) To generating concave and convex profile

Answer: D) To generating concave and convex profile

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

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

Answer: A) Less

34. 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

Answer: A) Radius gauge

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

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

Answer: D) Jig

36. Which one is example of ferrous tool material?

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

Answer: B) High carbon steel

37. Which is the cheapest tool material?

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

Answer: B) High carbon steel

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

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

Answer: D) Using carbide tipped form tool