

DO NOT OPEN THIS TEST BOOKLET UNTIL YOU ARE ASKED TO DO SO

23-0005-AB

TEST BOOKLET
PAPER-II
MACHINIST

Time Allowed: 1 hr

Maximum Marks: 50

INSTRUCTIONS TO CANDIDATES

Read the instructions carefully before answering the questions: -

1. This Test Booklet consists of 08 (eight) pages and has 50 (fifty) questions.
2. IMMEDIATELY AFTER THE COMMENCEMENT OF THE EXAMINATION, YOU SHOULD CHECK THAT THIS BOOKLET DOES NOT HAVE ANY UNPRINTED OR TORN OR MISSING PAGES OR ITEMS ETC. IF SO, GET IT REPLACED BY A COMPLETE TEST BOOKLET.
3. Please note that it is the candidate's responsibility to fill in the Roll Number and other required details carefully and without any omission or discrepancy at the appropriate places in the OMR Answer Sheet. Any omission/discrepancy will render the OMR Answer Sheet liable for rejection.
4. Do not write anything else on the OMR Answer Sheet except the required information. Before you proceed to mark in the OMR Answer Sheet, please ensure that you have filled in the required particulars as per given instructions.
5. Use only Black Ball Point Pen to fill the OMR Answer Sheet.
6. Each question comprises of 04 (four) responses (answers). You are required to select the response which you want to mark on the OMR Answer Sheet. In case you feel that there is more than one correct response, mark the response which you consider the best. In any case, choose *ONLY ONE* response for each item.
7. After you have completed filling in all your responses on the OMR Answer Sheet and the examination has concluded, you should hand over to the Invigilator *only the OMR Answer Sheet*. You are permitted to take the Test Booklet with you.
8. Penalty for wrong answers in case of Multiple Choice based Questions:
THERE WIL BE PENALTY FOR WRONG ANSWERS MARKED BY A CANDIDATE.
 - (i) There are four alternatives for the answer to every question. For each question for which a wrong answer has been given by the candidate, one-third of the marks assigned to the question will be deducted as penalty.
 - (ii) If a candidate gives more than one answer, it will be treated as a wrong answer even if one of the given answers happens to be correct and there will be same penalty as above to the question.
 - (iii) If a question is left blank. i.e., no answer is given by the candidate; there will be no penalty for that question.

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MACHINIST

Choose the correct answer for the following questions: (1 x 50 = 50)

1. Hacksaw blade is made out of
 - (a) Mild steel
 - (b) stainless steel
 - (c) cast iron
 - (d) high speed steel

2. Single point cutting tool is used in
 - (a) Drilling machine
 - (b) lathe machine
 - (c) shaper machine
 - (d) both a and b

3. Cast iron consist the carbon
 - (a) <2%
 - (b) >2%
 - (c) =2%
 - (d) >6.3%

4. External screw thread can be produced fasted by
 - (a) Automats
 - (b) milling
 - (c) rolling
 - (d) chasing

5. Coining is the operation of
 - (a) Cold forging
 - (b) piercing
 - (c) hot forging
 - (d) cold extrusion

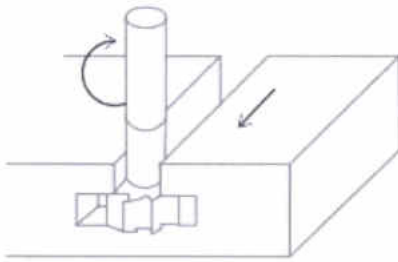
6. Large size bolt heads are fabricated by
 - (a) Swaging
 - (b) tumbling
 - (c) upset forging
 - (d) roll forging

7. Trimming is associated with
 - (a) Rolling
 - (b) press work
 - (c) forging
 - (d) extrusion

8. Commonly used unit of feed in drilling process is
 - (a) mm
 - (b) mm/hr
 - (c) rev/mm
 - (d) mm/rev

9. Tool life in the case of grinding wheel is the time
- (a) Take for the wheel to be balanced
 - (b) between two successive regrinds of the wheel
 - (c) taken between two successive wheel dressings
 - (d) both a and c
10. In ASA system, if the tool signature is 8-6-5-5-9-14-1, then the side rake angle will be
- (a) 5°
 - (b) 8°
 - (c) 6°
 - (d) 2°
11. It is required to cut screw thread of 2mm pitch on a lathe. The lead screw has a pitch of 8 mm. if the spindle speed is 80 rpm, then the speed of the lead will be
- (a) 10 rpm
 - (b) 15 rpm
 - (c) 20 rpm
 - (d) 25 rpm
12. A block of information in NC machine program means
- (a) One row on tape
 - (b) One complete program for a job
 - (c) One complete information
 - (d) None of above
13. Several machine tools can be controlled by
- (a) NC
 - (b) CCNC
 - (c) CNC
 - (d) DNC
14. Which of the following is not the advantage of CNC machine
- (a) Improved strength of the parts
 - (b) improved quality
 - (c) reduced scrape rate
 - (d) higher flexibility
15. Which is not the function of jigs
- (a) Guide the tools
 - (b) holds the components
 - (c) decreases machining accuracy
 - (d) used of drilling operation
16. Which one of the following is not a part of micrometer?
- (a) Thimble
 - (b) beam
 - (c) sleeve
 - (d) anvil
17. The steel rolled product of size 30x150mm square is known as
- (a) Bloom
 - (b) slab
 - (c) channel
 - (d) billet

18. For lifting heavy jobs in a shop, use is made of
- (a) Hoist
 - (b) Conveyors
 - (c) Fork lift
 - (d) Overhead crane
19. In how many ways CNC machine tool system can be classified
- (a) 2
 - (b) 3
 - (c) 4
 - (d) 5
20. What is the name of milling operation?



- (a) Plain milling
 - (b) Side milling
 - (c) End milling
 - (d) T slot milling
21. Hot chisel angle is
- (a) 30°
 - (b) 45°
 - (c) 50°
 - (d) 60°
22. In worm gearing system, the angle between the inclined face in axial plane is _____ the pressure angle.
- (a) Half
 - (b) Two times
 - (c) Equal
 - (d) Three times
23. Which of the following term defined the size of the cam?
- (a) Pitch curve
 - (b) Pitch circle
 - (c) Prime circle
 - (d) Basic circle
24. Productivity is referred as
- (a) Input/output
 - (b) Output/Input
 - (c) Input-output
 - (d) Output-Input

25. A systematic approach for maintenance is
- (a) Problem– Diagnosis – Cause – Rectification
 - (b) Problem – Measure – Diagnosis – Rectification
 - (c) Problem – Cause – Diagnosis – Rectification
 - (d) Problem– Diagnosis – Measure – Rectification
26. Vehicle manufacturing assembly line is an example of
- (a) Product layout
 - (b) Process layout
 - (c) Group forging
 - (d) Fix position layout
27. A twist drill is a
- (a) Front cutting tool
 - (b) end cutting tool
 - (c) side cutting tool
 - (d) side and end cutting tool
28. A portable drill machine is specified by
- (a) Maximum thickness of job it can drill
 - (b) Spindle speed and feed
 - (c) Maximum diameter of drill it can hold
 - (d) Maximum travel of spindle
29. In reaming process
- (a) High dimensional accuracy is obtained
 - (b) Metal removal rate is high
 - (c) High surface finish is obtained
 - (d) High form of accuracy is obtained
30. Which one of the following materials is used as the binding material for grinding wheels?
- (a) Aluminium oxide
 - (b) sodium silicate
 - (c) silicon carbide
 - (d) boron carbide
31. Cutting action of the grinding wheel is improved by a process known as
- (a) Facing
 - (b) Turning
 - (c) Cleaning
 - (d) Dressing
32. Hobbing process cannot be used to cut
- (a) Bevel gear
 - (b) Helical gear
 - (c) Worm gear
 - (d) Spur gear
33. The Taylour's correlation between speed and tool life is given by
- (a) $V^n T = C$
 - (b) $VT^n = C$
 - (c) $V/T^n = C$
 - (d) $V^n / T = C$

34. Which part of the cutting tool is prone to crater wear?
- (a) Flank wear
 - (b) Shank
 - (c) Face
 - (d) Base
35. Which one of the following is a single point cutting tool?
- (a) Parting tool
 - (b) Hacksaw blade
 - (c) Grinding wheel
 - (d) Milling cutter
36. Composition of HSS
- (a) 18% chromium, 4% tungsten and 1% vanadium
 - (b) 18% vanadium, 4% chromium and 1% tungsten
 - (c) 18% tungsten, 4% chromium and 1% vanadium
 - (d) 18% tungsten, 4% vanadium and 1% chromium
37. External screw threads can be produced fastest by
- (a) Milling
 - (b) Chasing
 - (c) Rolling
 - (d) Automates
38. Lathe machine bed is usually made by
- (a) Mild steel
 - (b) structural steel
 - (c) stainless steel
 - (d) cast iron
39. Cutting of material during slotting operation takes place in
- (a) Forward stroke
 - (b) Backward stroke
 - (c) Both forward and backward stroke
 - (d) None of the mentioned
40. Which type of coolant is applied during the cutting of cast iron?
- (a) Kerosene oil
 - (b) water
 - (c) soluble oil
 - (d) dry air
41. The main function of cutting fluid is
- (a) Improve surface roughness
 - (b) Wash away the chips
 - (c) Cool the tool and work piece
 - (d) Provide lubrication
42. LVDT stands
- (a) Linear Variable Differential Transducer
 - (b) Linear Variable Differential Transformer
 - (c) Linear Voltage Differential Transducer
 - (d) Line Voltage Differential Transducer

43. In which mode we can input the program command manually
- (a) MDI mode
 - (b) Auto mode
 - (c) edit mode
 - (d) jog mode
44. CNC machine has the following main advantage over conventional machining practice.
- (a) Ability to employ higher cutting speeds, feeds and depth of cut
 - (b) Flexibility
 - (c) Feedback control
 - (d) None
45. Which type of blocks are punched into a punch card?
- (a) Circular
 - (b) Elliptical
 - (c) Square
 - (d) Rectangular
46. In which of the following operation jigs are preferred over fixture?
- (a) Drilling
 - (b) Turning
 - (c) Grinding
 - (d) Milling
47. The capability of a metal to be drawn into wire referred as
- (a) Malleability
 - (b) Strength
 - (c) Tensile
 - (d) Expandability
48. The machine tool guide ways are usually hardened by
- (a) Induction hardening
 - (b) Vacuum hardening
 - (c) Flame hardening
 - (d) Martempering
49. CI is a
- (a) Brittle material
 - (b) Ductile material
 - (c) Non ferrous material
 - (d) all
50. Least count of vernier caliper in metric system is
- (a) 0.001 mm
 - (b) 0.002 mm
 - (c) 0.003 mm
 - (d) 0.004 mm
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Space for rough work