

# Mississippi Department of Education



## MS-CPAS2 Secondary Practice Assessment/ Assessment Preparatory Guidelines *11340P2-2015 Metal Fabrication*

### General Instructor Preparatory Guidelines

- **STUDENTS SHOULD ONLY TAKE PRACTICE TESTS ONLINE.**
- The practice tests are delivered the **SAME WAY** as the live tests.
- Use the correct curriculum and MS-CPAS2 assessment blueprint located at: <http://www.rcu.msstate.edu/Curriculum/CurriculumDownload.aspx>
  - Teach the correct number of instructional hours per unit.
  - Cover each competency/objective listed in the curriculum/blueprint.
- Use multiple-choice (selected response) assessments in your classroom. Examples are Unit Tests, Quizzes, and Timed Final Practice Exams.
- Take **Assessment 101** (RCU online course) to learn how to form well-constructed assessments for your classroom.
- Review previous MS-CPAS2 year reports to identify class unit performance. Adjust in-class reviews accordingly.
- Students should take the **DEMO MS-CPAS2** *OR* the **PRACTICE MS-CPAS2** to help students prepare for testing day.
- **Only** use this document as a review of the online practice assessment **AFTER** students take the practice assessment online. It is **NOT** meant for use as a study guide or predict student performance on the live test.

# **MS-CPAS2 PRACTICE Assessment**

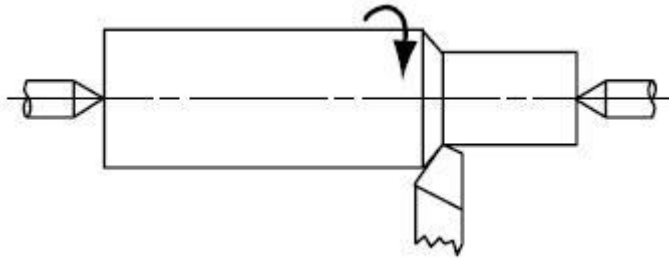
**1. Which precision measuring device is shown in the illustration below?**



- a. Depth gage
  - b. Bore gage
  - c. Calipers
  - d. Height gage
- 2. When cutting internal threads, what is the minimum size diameter the hole should be drilled?**
- a. Minor diameter
  - b. Major diameter
  - c. Minor diameter plus 0.001 in.
  - d. Major diameter plus 0.001 in.
- 3. When filing on the lathe, always file:**
- a. with your right hand on the handle and left hand on the end of the file.
  - b. with your left hand on the handle and right hand on the end of the file.
  - c. with both hands on the handle.
  - d. with both hands on the file.
- 4. Which of the following tools is best for measuring pitch diameter?**
- a. Thread micrometer
  - b. Outside micrometer
  - c. Inside micrometer
  - d. Dial calipers

- 5. When cutting right-hand internal threads, the compound rest should be set at what angle?**
- a.  $29^\circ$  to the left
  - b.  $29^\circ$  to the right
  - c.  $35^\circ$  to the left
  - d.  $35^\circ$  to the right
- 6. What term is used to describe the increase or decrease in diameter at a uniform rate?**
- a. Straight turning
  - b. Finish turning
  - c. Thread turning
  - d. Taper turning
- 7. What type of gage is used for grinding and setting the threading tool bit in position?**
- a. Plug gage
  - b. Root gage
  - c. Center gage
  - d. Pitch gage
- 8. Which is considered a safe act while operating a lathe?**
- a. Talking to classmates
  - b. Removing all jewelry
  - c. Leaning on the machine
  - d. Leaving the chuck key in the chuck

**9. Which turning operation is shown in the illustration below?**



- a. Knurling
- b. Straight turning
- c. Threading
- d. Reaming

**10. Feeds on the quick-change gear box are identified in terms of ten thousandths of an inch per:**

- a. spindle revolution.
- b. minute.
- c. second.
- d. feed rod revolution.

**11. What is normally the direction of feed for a facing operation?**

- a. Toward the headstock
- b. Away from the tailstock
- c. Toward the lathe center
- d. Away from the lathe center

**12. Dry cuts on a lathe could:**

- a. make the workpiece accurate.
- b. make the workpiece cold.
- c. make the workpiece hot.
- d. damage the toolholder.

**13. Turning between centers requires which tool to drive the part being turned?**

- a. Lathe dog
- b. Tool rest
- c. Quill sleeve
- d. Follower rest

**14. Which chuck should be used for a lathe setup that must be held to within 0.001 in. of an existing diameter?**

- a. Two-jaw chuck
- b. Three-jaw chuck
- c. Four-jaw chuck
- d. Six-jaw chuck

**15. When you are working with a part on a lathe that has to be machined on both ends, which accessory provides the most accurate machining process?**

- a. Three-jaw chuck
- b. Four-jaw chuck
- c. Face plate
- d. Dead center

**16. An end mill is used in what type of machine?**

- a. Vertical mill
- b. Horizontal mill
- c. Slant mill
- d. Wedge mill

**17. Turning the vertical movement crank moves the knee along which axis?**

- a. X
- b. Y
- c. Z
- d. Q

**18. What type of milling cutter does not have a shank and is used on a horizontal mill?**

- a. Two-flute cutter
- b. Four-flute cutter
- c. Arbor cutter
- d. Shank cutter

**19. What type of milling machine is characterized by a rigid worktable construction?**

- a. Column and knee
- b. Fixed bed
- c. Vertical
- d. Horizontal

**20. How deep should you cut a keyway for a 3/8 square key?**

- a. 1/16
- b. 3/16
- c. 3/8
- d. 1/2

**21. To what parts of a horizontal milling machine are cutters attached?**

- a. A plain arbor or arbor yoke
- b. A screw arbor or arbor yoke
- c. A collet arbor or adapter
- d. An arbor or spindle adapter

**22. When adjusting the rpm on a milling machine by shifting V-belts, make sure the machine is:**

- a. running.
- b. off.
- c. in high gear.
- d. running at a low rpm.

**23. Which type of milling operation uses a pair of side milling cutters to machine both sides of a workpiece simultaneously?**

- a. End
- b. Face
- c. Gang
- d. Straddle

**24. If you have machined the side of a workpiece on the vertical mill and the workpiece is not square after milling, what is the most likely cause?**

- a. The cutter is dull.
- b. The table is worn.
- c. The rpm is too high.
- d. The vise is not straight.

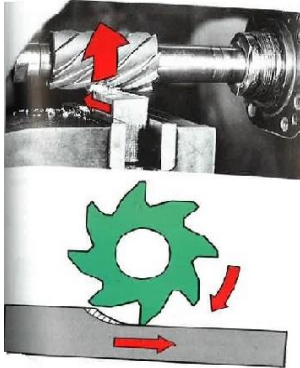
**25. If you mount a vise on a milling machine table and the indicator reads 0.020 on one end and 0.000 on the other end, how much should you move the vise?**

- a. 0.040
- b. 0.020
- c. 0.010
- d. 0.005

**26. What is the minimum number of cutters used in gang milling?**

- a. 1
- b. 2
- c. 3
- d. 4

**27. What type of milling is being performed in the illustration below?**



- a. Conventional milling
- b. Climb milling
- c. End milling
- d. Straddle milling

**28. Which of the following electrodes is the largest?**

- a. 3/32 in.
- b. 1/8 in.
- c. 3/16 in.
- d. 5/32 in.

**29. Adequate ventilation is necessary for SMAW because:**

- a. air circulation is needed to solidify the weld.
- b. the arc requires a constant flow of fresh air to stabilize it.
- c. the electrodes used give off hazardous fumes and smoke.
- d. the welding arc requires oxygen in order to perform properly.

**30. Duty cycle is based on a/an:**

- a. 3-minute period of time.
- b. 5-minute period of time.
- c. 8-minute period of time.
- d. 10-minute period of time.



**31. What is the CORRECT root gap for the SMAW process when preparing to make a horizontal V-butt groove weld test coupon with a backing plate?**

- a. 1/2 in.
- b. 1/4 in.
- c. 1/8 in.
- d. 1/16 in.

**32. You need to weld an unclean surface using the SMAW process. Which rod should you choose?**

- a. E6010
- b. E7018
- c. E1060
- d. E1870

**33. A weld bead that is two or three times the diameter of the electrode being used is referred to as a/an:**

- a. stringer bead.
- b. arc bead.
- c. weave bead.
- d. whipping bead.

**34. What is the easiest method of starting an arc?**

- a. Tapping method
- b. Scratching method
- c. Weaving method
- d. Grounding method

**35. What is the proper electrode work angle for vertical welding?**

- a. 20°
- b. 30°
- c. 45°
- d. 60°

**36. High and low spots in a weld bead generally indicate the:**

- a. weld speed was not uniform.
- b. weld speed was too fast.
- c. weld speed was too slow.
- d. wrong technique was used.

**37. What is the designation for welding a vertical V-groove butt weld?**

- a. 1G
- b. 2G
- c. 3G
- d. 4G

**38. What is the exposed surface of a weld called?**

- a. Weld root
- b. Weld leg
- c. Weld toe
- d. Weld face

**39. The last digit in an electrode number indicates:**

- a. electrode.
- b. tensile strength.
- c. welding position.
- d. flux type and current.

**40. What weld characteristics does EXX10 have?**

- a. Deep penetration, flat beads
- b. Medium penetration, tall beads
- c. Moderate penetration, flat beads
- d. Deep penetration, round bead

**41. As a safety precaution, when the shielding gas cylinder is at the GMAW workstation, it should be:**

- a. at least 50 ft away from the welding.
- b. next to the machine.
- c. secured to prevent it from falling.
- d. set at least 2 in. off the ground.

**42. If a cover is off an electrical panel on an FCAW welder, what should you do?**

- a. Report it to the instructor.
- b. Make sure the power is off.
- c. Stick a test light to the contact points.
- d. Replace the cover.

**43. The purpose of the flow meter on a GMAW setup is to control the:**

- a. weld.
- b. weld gun.
- c. current flow.
- d. shielding gas flow.

**44. An advantage of FCAW over GMAW is that it:**

- a. can be used in windy conditions.
- b. can weld faster.
- c. is less expensive.
- d. produces a better weld.

**45. When selecting welding cable, what must be considered?**

- a. Where the welding will be done
- b. Amperage and current's travel distance
- c. Who will be using it
- d. How much it will cost

**46. In GMAW, one of the major advantages of short arc transfer for thin materials is:**

- a. deep penetration.
- b. globular transfer.
- c. large molten pool size.
- d. shallow penetration.

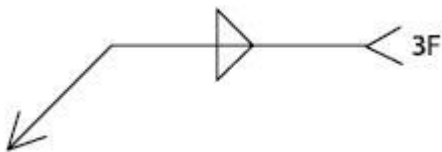
**47. The center-to-center spacing of intermediate fillet welds is called:**

- a. seam.
- b. length.
- c. pitch.
- d. skip.

**48. The GMAW travel angle for the first pass of a vertical T-Joint is approximately:**

- a. 0-10°.
- b. 10-15°.
- c. 25-30°.
- d. 35-45°.

**49. What does the weld symbol represent in the illustration below?**



- a. Fillet weld with both sides flat
- b. Fillet weld with both sides horizontal
- c. Fillet weld with both sides vertical
- d. Fillet weld with both sides overhead

**50. When making a weld to FCAW specifications, what tool should be used to remove slag from the bead?**

- a. Ball-peen hammer
- b. Chipping hammer
- c. Claw hammer
- d. Sledgehammer

**MS-CPAS2**  
**PRACTICE Assessment**  
**Answer Key**

# Answer Key

Question	Answer
1	D
2	A
3	B
4	A
5	A
6	D
7	C
8	B
9	B
10	A
11	C
12	C
13	A
14	C
15	B
16	A
17	C
18	C
19	B
20	B
21	D
22	B
23	D
24	D
25	C

Question	Answer
26	B
27	A
28	C
29	C
30	D
31	B
32	A
33	A
34	B
35	C
36	A
37	C
38	D
39	D
40	A
41	C
42	A
43	D
44	A
45	B
46	D
47	C
48	B
49	C
50	B