

CAMEROON GENERAL CERTIFICATE OF EDUCATION BOARD
Technical and Vocational Education Examination



MANUFACTURING PROCESSES 1
5380

JUNE XXXX

INTERMEDIATE LEVEL

Centre No. & Name	
Candidate No.	
Candidate Name	

Mobile phones are **NOT** allowed in the examination room.

5380 - MANUFACTURING PROCESSES 1: MULTIPLE CHOICE QUESTION PAPER

1 hour 30 minutes

INSTRUCTIONS TO CANDIDATES

Read the following instructions carefully before you start answering the questions in this paper. Make sure you have a soft HB pencil and an eraser for this examination.

1. USE A SOFT HB PENCIL THROUGHOUT THE EXAMINATION.
2. DO NOT OPEN THIS BOOKLET UNTIL YOU ARE TOLD TO DO SO.

Before the examination begins:

3. Check that this question booklet is headed "**Intermediate Level – 5380 - MANUFACTURING PROCESSES 1.**"
4. Insert the information required in the spaces above.
5. Insert the information required in the spaces provided on the answer sheet using your HB pencil:

Candidate Name, Exam Session, Subject Code, Centre Number and Candidate Number.

Take care that you do not erase or fold the answer sheet or make any marks on it other than those asked for in these instructions.

How to answer the questions in this examination:

6. Answer **ALL** the **50** questions in this Examination. All questions carry equal marks.
7. Each question has **FOUR** suggested answers: **A, B, C** and **D**. Decide which answer is correct. Find the number of the question on the Answer Sheet and draw a horizontal line across the letter to join the square brackets for the answer you have chosen.
For example, if **C** is your correct answer, mark **C** as shown below:
[A] [B] [C] [D]
8. Mark only one answer for each question. If you mark more than one answer, you will score a zero for that question. If you change your mind about an answer, erase the first mark carefully, then mark your new answer.
9. Avoid spending too much time on any one question. If you find a question difficult, move on to the next question. You can come back to this question later.
10. Do all rough work in this booklet, using, where necessary, the blank spaces in the question booklet.
11. **You must not take this booklet and the answer sheet out of the examination room. All question booklets and answer sheets will be collected at the end of the examination.**

Turn Over

1. Which of the following is incorrect about precautions in using a micrometer?

A	Final movement is given by ratchet
B	Thimble is turned till the Measuring tip just touches the part to be measured
C	Part to be measured is held in right hand and micrometer in left hand for good results
D	Error in reading may be due to lack of flatness of anvil

2. Which of the following is not a name of slip gauges?

A	Gauge Blocks
B	Johannsen Gauges
C	Gage Blocks
D	Linear Gauges

3. Grooving is an operation of.

A	Beveling the extreme end of a workpiece
B	Reducing the diameter of a workpiece over a very narrow surface
C	Embossing a diamond shaped pattern on the surface of a workpiece
D	Enlarging the end of a hole cylindrically

4. In reaming process

A	Metal removal rate is high
B	High surface finish is obtained
C	High form accuracy is obtained
D	High dimensional accuracy is obtained

5. Why tolerances are given to the parts?

A	Because it's impossible to make perfect settings
B	To reduce weight of the component
C	To reduce cost of the assembly
D	To reduce amount of material used

6. Bilateral tolerance is defined as

A	Total tolerance is in 1 direction only
B	May or may not be in one direction
C	Total tolerance is in both the directions
D	Tolerance provided all over the component body

7. What does '50' represents in 50H8/g7?

A	Maximum limit of size
B	Actual size
C	Basic size
D	Minimum limit of size

8. A grinding wheel becomes glazed (i.e. cutting edge takes a glass-like appearance) due to

A	Wear of bond
B	Wear of abrasive grains
C	Breaking of abrasive grains

D	Cracks on grinding wheel
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9. In oblique cutting of metals, the cutting edge of the tool is

A	Inclined at an angle less than 90° to the direction of tool travel
B	Perpendicular to the workpiece
C	Perpendicular to the direction of tool travel
D	Parallel to the direction of tool travel

10. What does ES represent in terminology as per IS:?

A	Lower deviation of hole
B	Upper deviation of hole
C	Lower deviation of shaft
D	Upper deviation of shaft

11. Chamfering is an essential operation after

A	Knurling
B	Rough turning
C	Thread cutting
D	Boring

12. Which of the following will give better chip flow?

A	Positive back rake angle tool
B	Negative back rake angle tool
C	Zero back rake angle tool
D	Zero relief angle

13. Which of the following will give maximum chip flow during machining?

A	Hard material
B	Ductile material
C	Brittle material
D	High speed steel

14. Ceramic tools are fixed to a tool body by

A	soldering
B	brazing
C	welding
D	clamping

15. By increasing feed rate, amount of heat generated

A	Increases
B	Remains constant
C	Decreases
D	Does not depend on feed rate

16. Operation of finishing previously drilled hole in order to bring it to accurate size and have good surface finish is known as

A	Drilling
B	Reaming
C	Boring

D	Counter boring
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17. Operation of enlarging the end of the hole to give conical shape at end is known as

A	Drilling
B	Counter sinking
C	Boring
D	Reaming

18. Operation used to form internal threads is known as

A	Drilling
B	Reaming
C	Boring
D	Tapping

19. Helical grooves on a body of reamers are known as

A	Flutes
B	Face
C	Heel
D	Recess

20. The usual value of the helix angle of a drill is

A	30°
B	20°
C	45°
D	60°

21. Main cutting part of drill is

A	Body
B	Point
C	Lip
D	Chisel edge

22. The portion of weld joint that is melted by the heat of melting is called as?

A	Throat
B	Puddle
C	Root
D	Toe

23. Small weld used to temporally hold the two pieces is called as?

A	Crater
B	Base metal
C	Tack weld
D	Penetration

24. If the cutting speed is increased, then the built-up-edge

A	Becomes smaller and finally does not form at all
B	Becomes longer
C	Knee May or may not form
D	Has nothing to do with speed

25. Which of the following is capable of sliding up and down in milling machines?

A	Base
B	Column
C	Knee
D	Table

26. A drill considered as a cutting tool having zero rake, is known as a?

A	Flat drill
B	Straight fluted drill
C	Parallel shank twist drill
D	Tapered shank twist drill

27. Which of the following milling cutters have teeth only on their periphery?

A	Plain milling cutters
B	Side milling cutters
C	End milling cutters
D	Face milling cutters

28. Diameter of milling cutter is 100 mm, running at 210 rpm. Cutting speed in m/min is equal to

A	26
B	23
C	66
D	78

29. Distance moved by table in mm in one minute in any direction is known as

A	Feed per minute
B	Feed per tooth
C	Feed per revolution
D	Feed rate

30. In a milling operation, feed per tooth is 0.020 mm and the total number of teeth on milling cutter is 50. Feed per revolution in mm is equal to

A	0.2
B	1.4
C	1.0
D	0.7

31. In a milling operation, feed per revolution is 0.05 mm and speed of 400 rpm. Feed per min in mm/min is equal to

A	80
B	20
C	0.5
D	0.0125

32. In which of the following milling method chip thickness is maximum at the end of cut?

Turn over

A	Up milling
B	Climb milling
C	Down milling
D	Gang milling

33. Circumference of a work piece is to be divided into 35 equal divisions using simple indexing method having 40 worm wheel teeth. Indexing movement will be

A	3 holes on 18 hole circle
B	16 holes on 18 hole circle
C	3 holes on 21 hole circle
D	16 holes on 21 hole circle

34. The indexing operation can also be adapted for producing .

A	Hexagonal headed bolts
B	Square headed bolts
C	Both hexagonal and square
D	Conical headed bolts

35. Indexing is accomplished by using a special attachment known as

A	Dividing head
B	Index head
C	Both dividing head and index head
D	Splitting head

36. Right hand roughing tool is used in _____.

A	lathe
B	shaper
C	both lathe and shaper
D	Colum drilling machine

37. As the temperature increases, the material's strength?

A	Increases
B	Decreases
C	Increases and then decreases
D	Remains same

38. As the temperature is increased, ductility is

A	increased
B	decreased
C	increased and then decreased
D	remains same

39. Which of the following has a live centre?

A	Tail stock
B	Headstock
C	Tool post
D	Carriage

40. Which of the following is the example of multi point cutting tool?

A	milling cutter
B	grooving tool

C	external thread cutting tool
D	Knife turning tool

41. Which of the following part of lathe slides along bed ways?

A	Cross slide
B	Saddle
C	Compound rest
D	Compound slide

42. If cutting tool travel 1000mm in the direction of feed motion with work piece rotational speed of 500 rpm and feed rate of 0.2mm/rev, machining time in minutes will be

A	2
B	6
C	8
D	10

43. Compound rest swiveling method in taper turning operation is most suitable for

A	Long jobs with small taper angles
B	Short jobs with small taper angles
C	Short jobs with steep taper angles
D	Long jobs with steep taper angles

44. In which of the following, tail stock method of taper turning operation will be preferred more?

A	Internal tapers
B	Steep tapers
C	Small tapers
D	Long slender tapers

45. Self-centered chuck has how many jaws?

A	4
B	3
C	2
D	1

46. Which of the following can be effectively used for holding eccentric job?

A	Four jaw chuck
B	Three jaw chuck
C	Both three jaw chuck and four jaw chuck
D	Collet chuck

47. A universal chuck is also known as

A	Four jaw chuck
B	Three jaw chuck
C	Both three jaw chuck and four jaw chuck
D	Two jaw chuck

48. Which of the following is mostly used for holding bored part of the job?

A	Dogs
B	Mandrels
C	Collet
D	Angle plate

49. What will be the value of half taper angle in degrees if diameter of big end is 500mm and diameter of small end is 60mm for a 1m long job?

A	31.10
B	52.30
C	31.10
D	12.40

50. Work piece can be held on a face plate by

A	bolts
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B	clamps
C	both bolts and clamps
D	Dead centre

NOW GO BACK AND CHECK YOUR WORK