

Roll No.

Total No. of Pages : 02

Total No. of Questions : 08

M.Tech.(ME) (Sem.-3)
COMPUTER AIDED MANUFACTURING
Subject Code : MME-519
M.Code : 38216

Time : 3 Hrs.

Max. Marks : 100

INSTRUCTION TO CANDIDATES :

1. Attempt any FIVE questions out of EIGHT questions.
2. Each question carries TWENTY marks.

- Q1. Define FMS, Types of FMS. Explain FMS planning and control issue with their benefits and applications of FMS. [20]
- Q2. Write advantages & disadvantages of CNC machines. Explain various stages involved with NC manufacturing. How do they differ from conventional manufacturing stages? [20]
- Q3. As per figure.1, The dimensions of a finished component to be made from a bar of $\phi 80 \text{ mm} \times 135 \text{ mm}$. Write the manual part programme to machine the component using G90 canned cycle. [20]

Operation No.	Operation	Tool No.	Cutting Speed (m/min)	Feed Rate (mm/rev)	Depth of Cut (mm)
10	Facing	01	160	0.15	–
20	Rough turning	03	200	0.20	4 (max.)
30	Finish turning	03	200	0.15	1.5(max.)

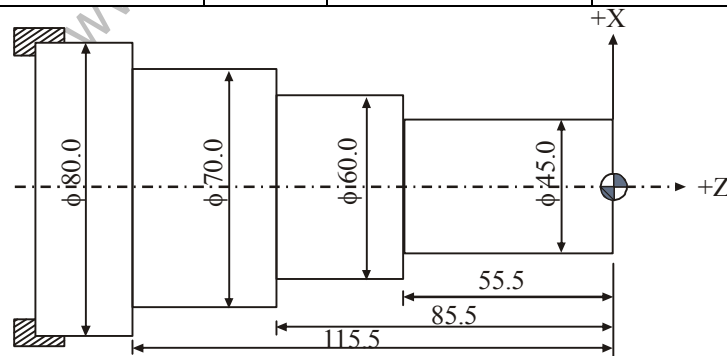


Fig.1

- Q4. (a) Explain the product cycle in CAD/CAM environment with suitable example. [8]
(b) Explain design, planning, and control activities of manufacturing system. [12]
- Q5. Explain in detail about the concept of MPP, CAPP and artificial intelligence. [20]
- Q6. Explain FMS components, layout and deadlock in FMS. Also explain the flexibility in Manufacturing. [20]
- Q7. Define cellular manufacturing. Explain production flow analysis. [20]
- Q8. Define GT, it's applications, and grouping parts and machines techniques. [20]

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NOTE : Disclosure of Identity by writing Mobile No. or Making of passing request on any page of Answer Sheet will lead to UMC against the Student.