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MANIPAL INSTITUTE OF TECHNOLOGY
MANIPAL
(A constituent unit of MAHE, Manipal)

VI SEMESTER B.TECH. (AUTOMOBILE ENGINEERING)

END SEMESTER EXAMINATIONS, APRIL 2018

SUBJECT: COMPUTER INTEGRATED MANUFACTURING [AAE 4008]

REVISED CREDIT SYSTEM
(24/04/2018)

Time: 3 Hours

MAX. MARKS: 50

Instructions to Candidates:

- ❖ Answer **ALL** the questions.
- ❖ Missing data may be suitable assumed.

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|------------|---|-----------|
| 1A. | With a neat sketch explain different activates in production planning system | 06 |
| 1B. | Write a note on magnetic grippers used in industrial robots with its application in automobile industry | 04 |
| 2A. | Explain the general classification of CNC systems. | 03 |
| 2B. | Write the part program for the component shown in figure 1 | 07 |
| 3A. | With a neat sketch explain the progressive and ladder type FMS layout | 05 |
| 3B. | Write the program for the component given in figure 2 | 05 |
| 4A. | Explain the principle of working of adaptive control constraint system with sketch. | 05 |
| 4B. | Write a part program for the component shown in figure 3 | 05 |
| 5A. | Explain the benefits of group technology | 04 |
| 5B. | List and explain the different components of FMS system | 04 |
| 5C. | List the different types of sensors used in industrial robotics | 02 |

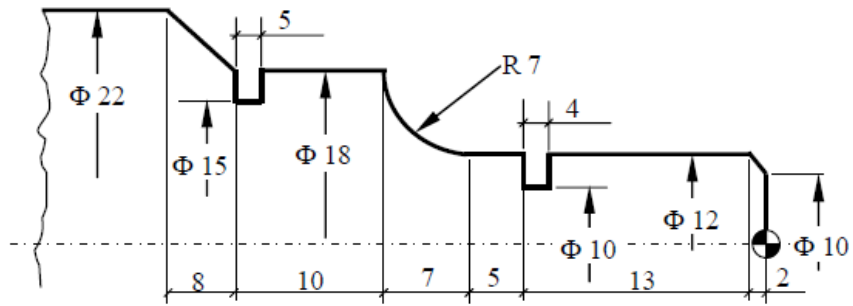


Figure 1

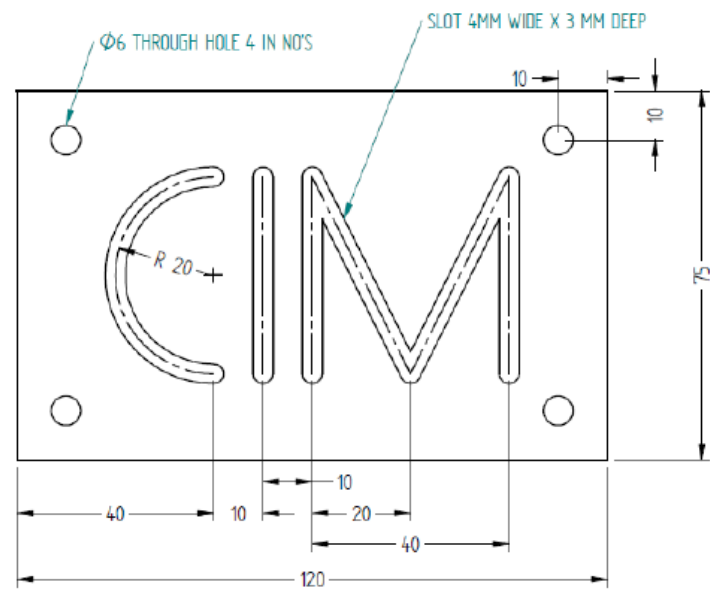


Figure 2

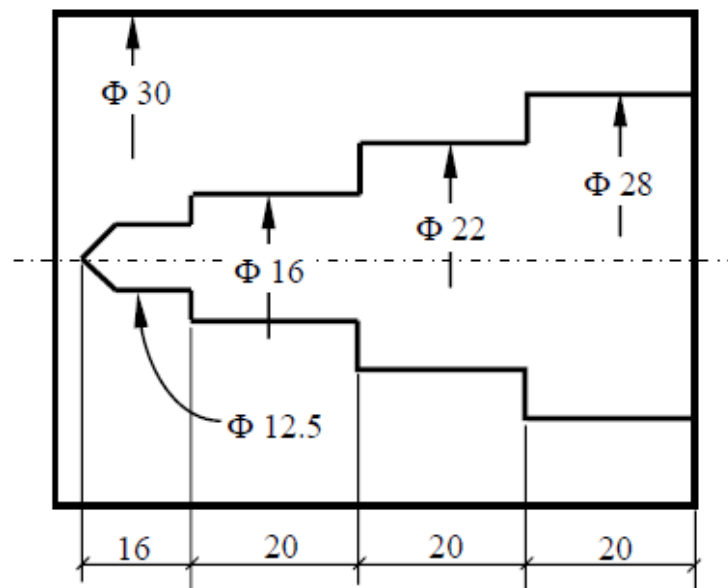


Figure 3