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Code : 15MC61T

Register
Number

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VI Semester Diploma Examination, April/May-2018

COMPUTER INTEGRATED MANUFACTURING SYSTEM

Time : 3 Hours]

[Max. Marks : 100

Note : Answer any six questions in Part-A and any seven full questions in Part-B.

PART – A

1. Brief the reasons for automation. 5
2. What are the advantages of CNC Machines ? 5
3. Explain G. Codes. 5
4. Explain Group Technology. 5
5. Explain Non-Contact bar code readers. 5
6. Explain AGV Guidance system. 5
7. Explain the basic components of AS/RS. 5
8. Explain dedicated flexible manufacturing system. 5
9. Explain the factors to be considered while planning and implementing FMS. 5

PART – B

10. Explain ten strategies of automation and process improvement. 10
11. (a) Define Canned Cycle. 2
(b) Differentiate between Absolute and incremental Co-ordinate system of dimensioning. 8

12. Write a CNC Milling part program to produce the component as shown in fig.1.
Depth of cut is 5 mm.

10

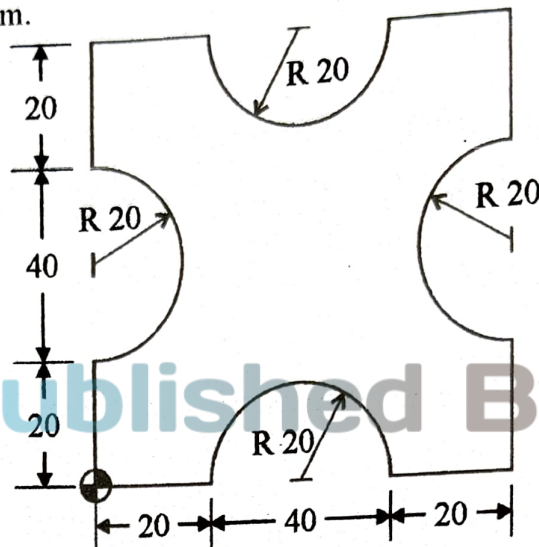


Fig. - 1

13. Write a CNC turning part program to produce a component as shown in fig.-2.

10

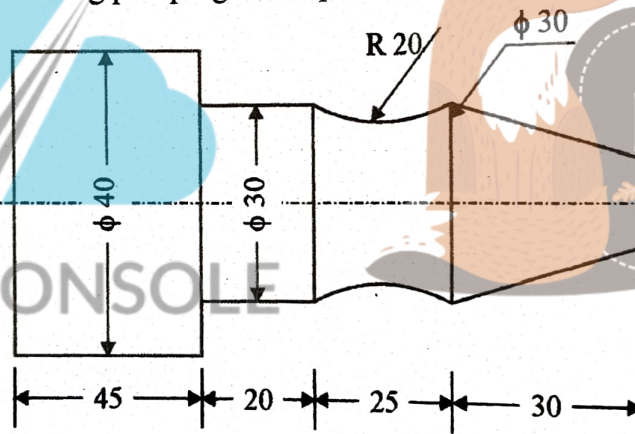


Fig. - 2

14. (a) What are the advantages of Group technology? 3
(b) Explain the methodology to be followed for developing a generative type of computer aided process planning system. 7
15. (a) Explain cellular manufacturing. 5
(b) Explain order scheduling w.r. to Automated shop floor control. 5
16. (a) Explain the various data input techniques w.r. to the automated shop floor control. 5
(b) Explain the three phases in shop floor control system with Block diagram. 5

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17. (a) What is the importance of AGU system ? 2
(b) Explain the on board vehicle sensing traffic control system in AGU. 8
18. (a) Explain AGU pallet trucks. 5
(b) List the advantages & disadvantages of Flexible Manufacturing System. 5
19. (a) Explain Machining Cell. 5
(b) Explain loop FMS layout Configuration. 5

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