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Q 2407

B.E./B.Tech. DEGREE EXAMINATION, NOVEMBER/DECEMBER 2007.

Sixth Semester

Mechanical Engineering

ME 338 — COMPUTER AIDED MANUFACTURING

Time : Three hours

Maximum : 100 marks

Answer ALL questions.

PART A — (10 × 2 = 20 marks)

1. Draw the product development cycle and explain.
2. Differentiate between concurrent engineering and sequential engineering.
3. How is the turret of a CNC lathe indexed?
4. Define the term CNC. What is the general configuration of CNC?
5. List any four work holding devices.
6. What are the four common types of ball screw mounting arrangements?
7. What is the difference between absolute and incremental programming?
8. List the four types of statements in the APT language.
9. Explain the use of computers to manage the production function.
10. List the emerging challenges in CAD/CAM.

- (b) (i) Write short notes on canned cycles and subroutines.
(ii) Write the APT program to mill the part shown in fig. below.

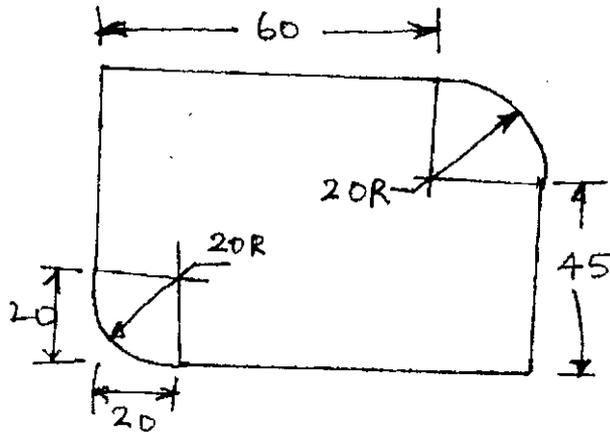


Fig. Qn. 14 (b)

15. (a) (i) What is Just In Time (JIT) approach?
(ii) Functions of Shop Floor Control (SFC).

Or

- (b) Explain the following :
(i) Product Data Management.
(ii) Assembly and Tolerance Modeling.