

C.U.SHAH UNIVERSITY

Summer Examination-2018

Subject Name: Computer Aided Manufacturing

Subject Code: 4TE07CAM1

Branch: B.Tech (Mechanical)

Semester: 7

Date: 20/03/2018

Time:10:30 To 01:30

Marks: 70

Instructions:

- (1) Question 1 is compulsory.
- (2) Instructions written on main answer book are strictly to be obeyed.
- (3) Draw neat diagrams and figures (if necessary) at right places.
- (4) Assume suitable data if needed.

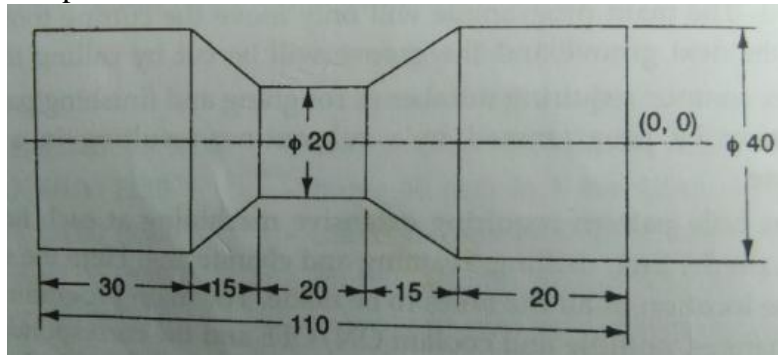
Q-1

Attempt the following questions:

- | | | |
|----|---|---|
| 1) | What is Binary-Coded Decimal? | 2 |
| 2) | Define the term Tool selection cycle. | 2 |
| 3) | How do we identify the Y-axis in NC/CNC machines? | 2 |
| 4) | What is floating zero? | 2 |
| 5) | Define the term Tool offset. | 2 |
| 6) | Draw and label product development cycle. | 2 |
| 7) | What is the full form of APT? | 1 |
| 8) | What is the full form of DAS? | 1 |

Attempt any four questions from Q-2 to Q-8

- Q-2** (a) What is do loops? Discuss the Do loops in detail and write a program for the component shown below. **14**



- Q-3** (a) What are the benefits of MRP? Describe. **7**
 (b) What are the types of NC/CNC control systems? Explain any one with neat sketch. **7**
- Q-4** (a) Write a technical note on methods of Swarf removal in CNC machines. **7**
 (b) Discuss the terms: (i) EOB and (ii) G00 **7**
- Q-5** (a) What are the important features of CMM? List only the main advantages of non-contact inspection methods. **7**



- (b) Write a technical note on collaborative engineering. 7
- Q-6** (a) Write the steps of manual part programming. 7
(b) Write the description of following function. 7
(i) G03 (ii) G63 (iii) G91 and (iv) G95 (v) M90 (vi) M00 (vii) M50
- Q-7** (a) Write a note on any one coding system used in group technology. 7
(b) Describe Flexible Manufacturing Cells. 7
- Q-8** (a) Draw and discuss the CIM wheel. 7
(b) Write a note on Machine Tool Unit in CNC system. 7

