

Reg. No. :

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**Question Paper Code: 50072**

B.E. / B.Tech. DEGREE EXAMINATION, NOV 2017

One Credit

Mechanical Engineering

15UME862 - CNC Programming

(Regulation 2015)

Duration: Three hours

Maximum: 30 Marks

Answer ALL Questions

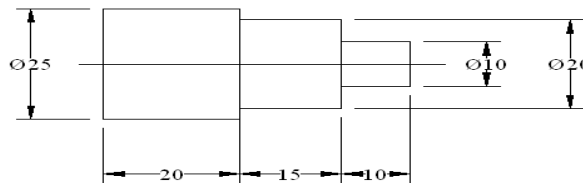
PART A - (10 x 1 = 10 Marks)

- The device, fed to the control unit of NC machine tool which sends the position command signals to sideway transmission elements of the machine, is called as
  - controller
  - tape
  - feedback unit
  - none of these
- Several machine tools can be controlled by a central computer in
  - NC (Numerical Control) machine tool
  - CNC (Computer Numerical Control) machine tool
  - DNC (Direct Numerical Control) machine tool
  - CCNC (Central-Computer Numerical Control) machine tool
- Part-programming mistakes can be avoided in
  - NC (Numerical Control) machine tool
  - CNC (Computer Numerical Control) machine tool
  - Both a and b
  - None of these
- NC contouring is an example of
  - continuous path positioning
  - point-to-point positioning
  - absolute positioning
  - incremental positioning

5. Computer will perform the data processing functions in
  - (a) NC
  - (b) CNC
  - (c) DNC
  - (d) none of these
6. The repeatability of NC machine depends on
  - (a) control loop errors
  - (b) mechanical errors
  - (c) electrical errors
  - (d) none of these
7. Rotation about Z-axis is called
  - (a) a-axis
  - (b) b-axis
  - (c) c-axis
  - (d) none of these
8. Rotation of spindle is designated by one of the following axis
  - (a) a-axis
  - (b) b-axis
  - (c) c-axis
  - (d) none of these
9. The process of putting data into a storage location is called
  - (a) reading
  - (b) writing
  - (c) controlling
  - (d) hand shaking
10. What does the G in G-Codes stand for
  - (a) Graphic
  - (b) General
  - (c) Geometric
  - (d) Global

PART - B (20 x 1 = 20 Marks)

11. (a) Write a CNC program for step turning using G and M code. (20)



Or

- (b) Write a CNC program for Thread Cutting and Grooving and simulate in the software. (20)

