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Total No. of Pages : 02

Total No. of Questions : 18

B.Tech. (Automation & Robotics) (Sem.-5)

COMPUTER AIDED DESIGN AND MANUFACTURING

Subject Code : BTAR502-18

M.Code : 78216

Time : 3 Hrs.

Max. Marks : 60

INSTRUCTION TO CANDIDATES :

1. SECTION-A is COMPULSORY consisting of TEN questions carrying TWO marks each.
2. SECTION-B contains FIVE questions carrying FIVE marks each and students have to attempt any FOUR questions.
3. SECTION-C contains THREE questions carrying TEN marks each and students have to attempt any TWO questions.

SECTION-A**Answer briefly :**

- 1) Define CIM.
- 2) What are conditions to be considered for a model to be called as geometric model?
- 3) Sketch Bezier curve.
- 4) What is the principle of material handling system?
- 5) Define part attributes in geometric modeling.
- 6) Define DNC system and where it can be used.
- 7) List the various data output devices.
- 8) Write the meaning of G81.
- 9) Define M code and M08, M09.
- 10) Write steps involved for doing process planning for making slot in rectangular workpiece.

SECTION-B

- 11) Define automation, and where it can be applied in the Indian industry.
- 12) Justify the statement “*Adaptive control machining system makes machines more intelligent*”.
- 13) Explain the concept of drawing B-spline curve in CAD.
- 14) Differentiate between variant and generative process planning system.
- 15) Define fixed and floating zero concept in computer aided part programming.

SECTION-C

- 16) Define Automated guided vehicle system, their types and guiding system.
- 17) What are the part families? What are the different coding system used for making part families?
- 18) Write a short note on :
 - a) Concatenation.
 - b) Types of flexibility in FMS system.
 - c) Advantages of parametric representation of curve.

NOTE : Disclosure of Identity by writing Mobile No. or Making of passing request on any page of Answer Sheet will lead to UMC against the Student.