R18 Regulation *Subject code:* 2P7CC

TKR COLLEGE OF ENGINEERING AND TECHNOLOGY

(Autonomous, Accredited by NAAC with 'A' Grade)

B.Tech VII Semester Regular/Supplementary Examinations, November 2022

CAD/CAM

(Mechanical Engineering)

Maximum Marks: 70 Date:05.12.2022 Duration: 3 hours

Note: 1.This question paper contains two parts A and B.
2. Part A is compulsory which carries 20 marks. Answer all questions in Part A.
3. Part B consists of 5 Units. Answer any one full question from each unit which carries 10M.
4. Each question carries 10 marks and may have a, b, c, d as sub questions.

Part-A

All the following questions carry equal marks (10x2M=20 Marks)

1 What are called 2 - D Wire frame models?
2 Give the benefits of automation.
3 Write down the limitations of surface modeling.
4 What is parameterization of a surface?
5 What is meant by 'Distributed NC'?
6 Why G codes are called preparatory codes?
7 Give the benefits of parts classification and coding.
8 What is a semi retrieval type process planning?
9 List the types of FMS layouts.
10 How CMM is used in CAQC?

Part-B

Answer All the following questions. (5X10M=50Marks)

11 Explain CAD system architecture with neat sketch. [10M]

OR

12 Describe the types of curves used in geometric modeling. Discuss their characteristics, advantages and drawbacks. [10M]

13 Describe the different techniques of solid modeling. [10M]

OR

14 Discuss the modeling guidelines to be followed by the user while constructing a surface model as a CAD/CAM system. [10M]

15 A. Discuss the various interpolation methods used in NC machines. [5M]
B. Discuss the advantages of DNC over NC/CNC. [5M]

OR

16 Discuss any five motion statements used in Computer Aided part programming. [10M]

17 Describe the methods used to form part families. [10M]

OR

18 Explain the two types of Computer Aided Process Planning with neat flow charts. [10M]

19 Describe the CIM wheel with a neat sketch. [10M]

OR

20 Explain the integration of CAQC with CAD/CAM systems. Discuss the application and advantages. [10M]