C.U.SHAH UNIVERSITY
Summer Examination-2019

Subject Name: Computer Integrated Manufacturing

Subject Code: 5TE02CIM1   **Branch: M.Tech Mechanical (CAD/CAM)**

Semester:2   **Date: 30/04/2019**   **Time: 02:30 To 05:30**   **Marks: 70**

Instructions:
(1) Use of Programmable calculator and any other electronic instrument is prohibited.
(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.

SECTION – I

Q-1   Attempt the Following questions
a.   Define CIM.   **(01)**
b.   Name the physical components of FMS.   **(01)**
c.   Differentiate between CAD & CAM.   **(01)**
d.   Write the types of software's of CIM.   **(01)**
e.   Define concurrent engineering.   **(01)**
f.   What do you mean by PDM?   **(01)**
g.   Write the benefits of GT.   **(01)**

Q-2   Attempt all questions
a.   Draw and explain CIM wheel.   **(07)**
b.   Define cellular manufacturing system and explain design of CMS.   **(07)**
OR
Q-2   Attempt all questions
a.   Write the tangential and non-tangential benefits of FMS.   **(07)**
b.   Discuss parts classification & coding and design and manufacturing   **(07)**
     attributes of GT.

Q-3   Attempt all questions
a.   Compare between conventional system and cell manufacturing systems.   **(07)**
b.   What do you mean by FMS layout? Explain any one type with neat   **(07)**
     diagram.
OR

Q-3 a.   Discuss basic components of NC/CNC systems.   (07)
**   b.   Define CAPP and also explain recent trends and technology in CAPP.   (07)**

SECTION – II

Q-4		**Attempt the Following questions**	**(07)**
	a.	Define Feed function.	**(01)**
	b.	Define Lean manufacturing.	**(01)**
	c.	Name the terminology used in DBMS.	**(01)**
	d.	What do you mean by machine layout.	**(01)**
	e.	Write the uses of Nano manufacturing.	**(01)**
	f.	What is the IBM concept of CIM.	**(01)**
	g.	Write the full form of SQL.	**(01)**

Q-5　　**Attempt all questions**

	a.	Explain types of networks: LAN, MAN, WAN and its comparison.	**(07)**
	b.	Write the types of CIM model and explain any one with example.	**(07)**

OR

Q-5　　**Attempt all questions**

	a.	Define AS/RS. Explain its types and applications in FMS.	**(07)**
	b.	Classify AGV on the basis of different guide ways and explain any one in detail.	**(07)**

Q-6　　**Attempt all questions**

	a.	Define the term (i) Agile (ii) Web Based Manufacturing systems (iii) Nano Manufacturing.	**(07)**
	b.	Explain four functions of lean manufacturing and their performance measures.	**(07)**

OR

Q-6　　**Attempt all Questions**

	a.	Discuss future scope and trends in manufacturing system.	**(07)**
	b.	Explain with neat sketch PLM & write its merits and demerits.	**(07)**