No. of Printed Pages : 3 **BME–005**

B. TECH. MECHANICAL ENGINEERING (CIM) (BTME)

Term-End Examination

December, 2019

BME-005 : COMPUTER INTEGRATED MANUFACTURING

Time : 3 Hours *Maximum Marks : 70*

Note : *Attempt any five questions. All questions carry equal marks.*

1. (a) Explain the basic operations of Automated Storage/Retrieval System (AS/RS) with real life examples. 7

    (b) Describe the steps through which electronic data transfer takes place in general from manufacturer to supplier in Indian context. 7

2. (a) What are the Type-I and Type-II errors in inspection procedure ? Differentiate with the help of examples. 7

(b) Describe the procedure and advantages of using Co-ordinate Measuring Machines (CMMs) over conventional methods of inspection.   7

3. (a) What do you mean by Flexible Manufacturing Systems (FMS) ? Describe the advantages of FMS over conventional manufacturing system.   7

(b) Discuss the various methods of past family formation.   7

4. (a) Enumerate the advantages and limitations of CNC systems.   7

(b) Describe the tool handling systems with the help of neat sketches.   7

5. (a) Explain the advantages and disadvantages of generative process planning.   7

(b) What are the steps involved in construction of discrete event simulation model ? Discuss various terminologies used in discrete system.   7

6. (a) Discuss the advantages and limitations of computer simulation.   7

(b) What are the steps involved in CAPP ? Elaborate with suitable example. 7

7. (a) What are vision systems ? Give some examples of vision system. 7

(b) What are the functions of a vision system ? Write the advantages of using a vision system. 7