Roll No Totalno. of pages:1 SEMESTER B. Tech (Mechanical Engg-Evening) (Feb 2019) END SEMESTER EXAMINATION(Supplementary) CME-401 FLEXIBLE MANUFACTURING SYSTEMS Max. Marks: 40 Time: 180 mins. Note:-Attempt any FIVE questions. Assume missing data, if any 04 1.(a) Explain NC, CNC and DNC system. (b) Explain with example various APT codes used in Part programming. 04 2.(a) Explain with diagram Jointed Arm Coordinate robot. (b) Explain the necessity and implementation of Flexible Manufacturing System in industries. 04 4.(a) Explain Sequential and Concurrent Engineering. 04 (b) What is Automated assembly system? Explain with diagram. 04 5.(a) Explain (i) Carousel storage system (ii) in-process storage system used in FMS industries. 04 (b) Explain the advantages and limitations of use of AGVs. 04 6.(a) What do you mean by Experts systems? Explain with example. 04 (b) Define CIM. Write a note on CIM. 04 OR (b) Explain different FMS layouts. 04