| Seat No.: | Enrolment No. |
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## **GUJARAT TECHNOLOGICAL UNIVERSITY**

BE - SEMESTER - VI (NEW).EXAMINATION - WINTER 2016

|             | •          | ect Code: 2162507  | Date:26/10/2016            |          |
|-------------|------------|--|----------------------------|----------|
|             | Time       | ect Name: Allied Manufacturing Technique e: 10:30 AM to 01:00 PM actions:  | Total Marks: 70            |          |
|             | IIISU U    | <ol> <li>Attempt all questions.</li> <li>Make suitable assumptions wherever necessary.</li> <li>Figures to the right indicate full marks.</li> </ol>                               |                            |          |
| <b>).1</b>  | (a)<br>(b) | What is the difference between Turret Lathe and an Engir<br>What do you mean by tool layout? What is needed for pr<br>Describe the steps for preparing a tool layout on turret lat | reparation of tool layout? | 07<br>07 |
| Q.2         | (a)        |  |                            | 07       |
|             | <b>(b)</b> | •  | acturing thread? Explain   | 07       |
|             |            | OR   |                            |          |
|             | <b>(b)</b> | How screw thread micrometer differs from ordinary mic<br>thread inspection with neat sketch.   | erometer? Explain screw    | 07       |
| Q.3         | (a)<br>(b) | Give a brief classification of automatic lathe machine.<br>With the help of neat sketch, explain sliding head type single spindle automatic machine.                               |                            | 07<br>07 |
| Q.3         | (a)        | OR With the diagram of "Cutting action of hobber" explainments as well as limitations.   | in Gear hobbing and its    | 07       |
|             | <b>(b)</b> |  | service? Explain Gear      | 07       |
| Q.4         | (a)        | Explain following with reference to EDM (i) TWR (ii) s<br>Fluid.   | spark gap (iii) Dielectric | 07       |
|             | <b>(b)</b> | Which process uses Electrolytes for machining characteristics, advantages and disadvantages of that proc   |                            | 07       |
| Q.4         | (a)<br>(b) | What are the types of Laser sources? Explain principle of LBM. Explain the effect of various parameters on MRR with the help of graphical representation in AJM.                   |                            | 07<br>07 |
| Q.5         | (a)        | -  |                            | 07       |
|             | <b>(b)</b> | Why vacuum chamber is needed in EBM? Also desapplication, advantages and limitations.  | scribe the process with    | 07       |
| Q.5         | (a)        | OR How NTMM differs from conventional machining  | processes? Give brief      | 07       |
| <b>V.</b> 3 | (a)        | classification of NTMM.  | processes. Give oner       | 07       |
|             | <b>(b)</b> | What is the difference between:-   |                            | 07       |
|             |            | (i) Transferred arc type and   |                            |          |
|             |            | (ii) Non transferred arc type plasma arc systems.  Give brief characteristics of PAM process.  |                            |          |