Reg.No. \_\_\_\_\_\_\_\_\_\_\_\_

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**End Semester Examination – Nov/Dec – 2018**

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| **Code :** | **17ME2006** | **Duration :** | **3hrs** |
| **Sub. Name :** | **MANUFACTURING PROCESSES** | **Max. marks :** | **100** |

**ANSWER ALL QUESTIONS (5 x 20 = 100 Marks)**

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| **Q. No.** | **Sub Div.** | **Questions** | **Course**  **Outcome** | **Marks** |
| 1. | a. | With neat sketches explain the working principle of investment casting. | CO2 | 10 |
| b. | List out the pattern allowances and describe it with required sketches. | CO2 | 10 |
| (OR) | | | | |
| 2. | a. | Briefly explain the various defects in casting with relevant sketches. | CO1 | 10 |
| b. | Write in detail about green sand mould. | CO1 | 10 |
|  |  |  |  |  |
| 3. |  | Describe the rolling principle and discuss the various types of rolling mills in detail. | CO3 | 20 |
| (OR) | | | | |
| 4. | a. | Briefly explain the various defects in forging process. | CO3 | 10 |
| b. | Write short notes on (a) wire drawing (b) rod drawing | CO3 | 10 |
|  |  |  |  |  |
| 5. |  | With mandatory sketch explain the Injection moulding process. | CO4 | 20 |
| (OR) | | | | |
| 6. |  | Illustrate the various operation performed in sheet metal. | CO4 | 20 |
|  |  |  |  |  |
| 7. |  | Explain the TIG welding process with neat sketch. Also discuss its advantages, disadvantages and applications. | CO5 | 20 |
| (OR) | | | | |
| 8. | a. | With neat sketch, describe the working of electron beam welding process. | CO5 | 10 |
| b. | Discuss the various causes and remedies of welding defects. | CO5 | 10 |
|  | |  |  |  |
|  | | **Compulsory:** |  |  |
| 9. |  | With mandatory flow chart explain the various steps involved in the process of powder metallurgy. | CO6 | 20 |