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

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

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| **Code :** | **12ME202** | **Duration :** | **3 hrs** |
| **Sub. Name :** | **PRODUCTION PROCESS I** | **Max. marks :** | **100** |

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| **Q. No.** | **Questions** | **Marks** |
| **PART-A(10X1=10 MARKS)** | | |
| 1. | Pattern is the \_\_\_\_\_\_\_\_. | 1 |
| 2. | What is the main purpose of using core in casting process? | 1 |
| 3. | What are the defects that are present in the rolled parts? | 1 |
| 4. | State the real time example for Extrusion. | 1 |
| 5. | State the difference between punching and blanking. | 1 |
| 6. | Define shear in terms of production process. | 1 |
| 7. | Why there is no requirement of flux in Metal Insert Gas (MIG)? | 1 |
| 8. | The highest temperature of oxy-acetylene flame is \_\_\_\_\_\_\_\_. | 1 |
| 9. | Define sintering process in terms of powder metallurgy and list its advantages. | 1 |
| 10. | List any two advantages of powder metallurgy | 1 |

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| **PART B(5 X 3= 15 MARKS)** | | |
| 11. | What are the types of Moulding process that are present? | 3 |
| 12. | State the principle of injection Moulding. | 3 |
| 13. | Explain bending process for sheet metal operation. | 3 |
| 14. | How the electrodes are specified? And list its content. | 3 |
| 15. | List the particle shapes in metal powders along with the process by which they are produced, and also draw its respective figures. | 3 |

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|  | **PART C(5 X 15= 75 MARKS)** | | |
| 16 |  | What are the different types of patterns that are used in foundry? | 15 |
|  |  | (OR) |  |
| 17. |  | Explain the working principle and setup of an investment casting. | 15 |
|  |  |  |  |
| 18. |  | Draw and explain the various forging operations and its defects. | 15 |
|  |  | (OR) |  |
| 19. |  | List the types of Rolling mills. Explain it with neat sketch. | 15 |
|  |  |  |  |
| 20. |  | Explain in detail about all the draw die design with their respective equations. | 15 |
|  |  | (OR) |  |
| 21. |  | Draw and explain the sheet metal operations with a neat sketch. | 15 |
|  |  |  |  |
| 22. |  | Explain in detail the plasma arc welding, state also its advantages and disadvantages. | 15 |
|  |  | (OR) |  |
| 23. |  | Explain the MIG welding process in detail. | 15 |
|  |  |  |  |
| 24. |  | Draw and explain the Powder metallurgy process in detail. | 15 |
|  |  | (OR) |  |
| 25. |  | Explain about i.Secondary and Finishing operations with respect to powder metallurgy and ii. Design . | 15 |