Reg. No.										

MANIPAL INSTITUTE OF TECHNOLOGY

MANIPAL

(A constituent unit of MAHE, Manipal)

III SEMESTER B. TECH (INDUSTRIAL AND PRODUCTION ENGG.)

MAKE UP EXAMINATIONS, DECEMBER 2018

SUBJECT: MANUFACTURING PROCESS ENGINEERING [MME 2111]

REVISED CREDIT SYSTEM

Time: 3 Hours MAX. MARKS: 50

Instructions to Candidates:

- Answer **ALL** the questions.
- Draw neat sketches using pencil only.
- Missing data may be suitably assumed.

1A.	With a neat sketch, explain plaster mold casting process.	**03**
1B.	Draw a neat labeled sketch of MIG welding process. List its two advantages.	**03**
1C.	With a neat sketch, explain the working principle of jolt squeeze machine.	**04**
2A.	With neat sketches, explain bulging operation.	**03**
2B.	The total life for a HSS tool is expressed by the relation $VT^{1/7}=C_1$ and for tungsten carbide $VT^{1/5}=C_2$. If the tool life for a cutting speed of 28 m/min is 115 min., compare the life of the two tools at a speed of 35 m/min.	**03**
2C.	List two advantages and disadvantages of centrifugal casting process.	**02**
2D.	With a neat sketch, explain two types of tool wear.	**02**
3A.	With a neat sketch, explain atomic hydrogen welding process.	**05**
3B.	What is rapid prototyping, Explain with a neat sketch selective laser sintering method.	**05**
4A.	With a neat sketch, explain the working principle of lathe.	**02**
4B.	With a neat sketch, show the different parts of a radial drilling machine.	**04**
4C.	By compound indexing method divide the periphery of the job into 87 divisions using plate 2 of Brown and Sharp having 21,23,27,29,31,33 holes.	**04**
5A.	List out four differences between shaper and planer.	**02**
5B.	Explain the double housing planer with a neat sketch.	**04**
5C.	With a neat sketch, explain the horizontal spindle surface grinding machine.	**04**