

**B. Tech. Sem - III (Production Engg.) (2014 COURSE) (CBCS) :
WINTER - 2018**

SUBJECT: WELDING AND FOUNDRY TECHNOLOGY

Day: Friday
Date: 23/11/2018

W-2018-2315

Time: 10.00 AM TO 01.00 PM
Max. Marks: 60

N.B:

- 1) All questions are **COMPULSORY**.
 - 2) Figures to the right indicate **FULL** marks.
 - 3) Draw neat and labeled diagrams **WHEREVER** necessary.
 - 4) Assume suitable data if necessary.
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Q. 1 Explain with suitable sketches Plasma arc welding process. Also State its merits, demerits and applications. **(10)**

OR

Q. 1 a) What are the equipments used in Gas Welding? Explain them in detail. **(05)**
b) Compare TIG and MIG Welding. **(05)**

Q.2 What is resistance welding? Explain with suitable sketches Seam welding and Butt Welding in detail. **(10)**

OR

Q.2 a) What is basic principle of ultrasonic welding? Explain working of ultrasonic welding machine. **(05)**
b) Explain friction welding process. **(05)**

Q.3 Explain with suitable sketches Braze welding and Thermit welding process. **(10)**

OR

Q.3 Describe welding defects and their classification in detail. **(10)**

Q.4 What are the different sand control tests? Explain with suitable sketches any two processes in detail. **(10)**

OR

Q.4 a) Explain types of pattern in detail. **(05)**
b) Describe gating system in detail. **(05)**

Q.5 What are the different factors for selection of remelting furnaces? Explain High Frequency Induction Furnace in detail. **(10)**

OR

Q.5 How casting defects are classified? Explain them with their causes and remedies. **(10)**

Q.6 Explain with suitable sketches Hot chamber Die casting and Cold Chamber die casting. **(10)**

OR

Q.6 Write a note on: **(10)**

- a) Use of robots in foundry
- b) Production of iron casting