

Roll No.

22616

**M.Tech. 1st Semester (MAE)
CBCS Scheme Examination-
December, 2016**

WELDING AND ALLIED PROCESSES

Paper : MTMA21C4

Time : 3 hours

Max. Marks : 100

Before answering the questions, candidates should ensure that they have been supplied the correct and complete question paper. No complaint in this regard will be entertained after the examination.

Note : Attempt **five** questions in all, selecting **one** question from each Section. Q. No. 1 is **compulsory**. All questions carry equal marks.

1. Explain the following :

- (a) Explain various welding defects. (7)
- (b) Types of electrodes (7)
- (c) Joint tracking system. (6)

SECTION - A

2. List the basic classification of welding process in detail. (20)
3. Describe the phase transformation during cooling of weld metal. (20)

SECTION - B

4. Describe the phenomenon of temperature distribution in the arc with suitable example. (20)
5. Explain the classification and coding of covered electrode form mild steel. (20)

SECTION - C

6. Describe the GTAW with the help of neat sketch and its application in detail. (20)
7. Describe the principle of "SAW" and its applications and also the type of flux sand used. (20)

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SECTION - D

8. Explain the solid state welding process with the help of neat sketch. (20)
9. Describe the significance of automation in welding in detail and types of automated welding. (20)

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