

**B.Tech. MECHANICAL ENGINEERING
(BTMEVI)**

Term-End Examination

December, 2013

BIMEE-024 : WELDING ENGG.

Time : 3 hours

Maximum Marks : 70

*Note : Attempt **any five** questions. All questions carry equal marks.*

1. (a) Describe plasma arc welding and give its applications. 7+7
(b) Explain explosive welding and give its applications.

2. (a) What metallurgical and morphological changes take place in plain Carbon Steel weldments ? 7+7
(b) Describe plasma arc cutting with its applications.

3. (a) Distinguish between Torch brazing and induction brazing. 7+7
(b) Explain the principle and operation of laser beam welding.

4. (a) What are the problems encountered with welding of austenitic stainless steels and what are the remedial actions ? 7+7
(b) Discuss weldability of carbon steels.

5. (a) Explain any two methods of non - destructive testing. 7+7
(b) Describe tensile testing and discuss the results which can be obtained by tensile testing.
6. (a) Explain on submerged arc welding process. 7+7
(b) Describe MIG welding and give its applications.
7. (a) Describe diffusion bonding process and give its applications. 7+7
(b) Write the differences between soldering, brazing and welding.
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