

DEPARTMENT OF INDUSTRIAL AND TECHNOLOGY EDUCATION  
FEDERAL UNIVERSITY OF TECHNOLOGY, MINNA  
2018/2019 SECOND SEMESTER EXAMINATION

**COURSE:** - ITE 381: Welding Processes – 2units

**TIME ALLOWED:** 2hours

**INSTRUCTION:** Answer any four questions. All questions carry equal marks.

1. Discuss gas welding process with respect to the equipment, heat source, flame types with their sketches and uses.
2. Discuss the arc welding process with respect to the equipment, heat source and the two methods of establishing and maintaining the arc.
3. The strength of welded joint depends, to some extent, on the design of the joint. Identify, sketch and show the conventional notations of any five joint designs.
4. Discuss any five heat treatment processes and the purpose of each.
5. The soldering process is particularly suited for light metal articles. Name and schematically illustrate any four joints commonly used on sheet metal articles.
6. Safety precaution is paramount in welding. Identify any five possible dangers in welding and the necessary precautions to take in respect of each.