

Prince of Songkla University

Faculty of Engineering

Final examination: Semester 1

Academic year: 2006

Date: 8th October 2006

Time: 9.00-12.00

Subject: 226-304 Welding Processes

Room: A401

ทฤษฎีในการสอบโทษขั้นต่ำคือปรับตกรในรายวิชาที่ทฤษฎีและพักรการเรียน 1 ภาคการศึกษา

Instruction: Attempt all questions which have the total marks of 100.

1. Give a critical comparison between spot welding and projection welding, covering their similarity, advantages and limitations. (10 marks)
2. Describe methods of preventing weld cracks. (10 marks)
3. Discuss the weldability of the following materials, covering causes of tentative problems and the ways to avoid those problems: (30marks)
 - 3.1 Aluminum alloy.
 - 3.2 Austenitic stainless steel.
 - 3.3 High strength low alloyed steel.
4. Briefly discuss the following topics. (20 marks)
 - 4.1 Influence of chemical composition to weld embrittlement.
 - 4.2 Lamellar tearing type of crack in welding thick sections of steel.
5. Describe the consideration that engineer should take into account when designing for production of welded product. (10 marks)
6. Describe the system of welding symbols; also give examples of basic and supplementary symbols, as well as their applications. (10 marks)
7. Describe the metallurgical reactions at the weld affected material, ranging from weld metal to heat affected zone. (10 marks)

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Instructor

