

Prince of Songkla University

Faculty of Engineering

Final examination: Semester 2

Academic year: 2004

Date: 2 March 2005

Time: 9.00-12.00

Subject: 226-302 Fabrication Technology

Room: R200

ทฤษฎีในการสอบโทษขั้นต่ำคือปรับตกในรายวิชาที่ทฤษฎีและพักการเรียน 1 ภาคการศึกษา

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

1. Give a critical comparison between X-ray and ultrasonic in nondestructive testing, covering their 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: (30 marks)
 - 3.1 Aluminum alloy.
 - 3.2 Austenitic stainless steel.
 - 3.3 Cast iron.
 - 3.4 High strength low alloyed steel.
 - 3.5 Titanium alloy.
4. Briefly discuss the following topics concisely: (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 methods to prevent or minimize deformation caused by welding. Also describe the techniques to straighten the deformed weld. (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. Discuss the knowledge which you gained from the site visit to the Trans Thai Malaysia (TTM) plant construction, as far as fabrication is concerned. (10 marks)

Phichit Remngsangvatana

Instructor

