

**FACULTY OF ENGINEERING**

B.E. 3/4 (AE) I – Semester (Main) Examination, November 2013

**Subject : Production Technology****Time : 3 hours****Max. Marks : 75****Note: Answer all questions from Part-A. Answer any FIVE questions from Part-B.****PART – A (25 Marks)**

1. Discuss merits and demerits of wood as a pattern material.
2. State the causes and remedies of 'cold shut'.
3. What are the functions of flux in coated electrodes?
4. State a few applications of ultrasonic welding process.
5. State the difference between hot working and cold working process.
6. What are the advantages of hydrostatic extrusion?
7. State the tool nomenclature in ASA system.
8. What are the differences between orthogonal cutting and oblique cutting?
9. State a few operations those can be performed on Lathe machine.
10. What is the difference between planing and shaping operations?

**PART – B (50 Marks)**

- 11.a) What are various allowances that are given to the Pattern? Explain about them in brief.  
b) Explain about the investment casting process with a neat sketch.
- 12.a) Explain about various types of flames obtained in oxy-acetylene welding process, their identification and applications.  
b) Explain about submerged arc welding process with a neat sketch.
- 13.a) State and explain about various types of rolling mills with neat diagrams.  
b) Explain about tube extrusion process with a diagram.
- 14.a) What are various types of chips formed in machining operation? State the conditions which promote the formation of the above.  
b) Using Taylor's tool life equation with constant 400 and exponent 0.5, calculate the percentage increase in tool life when cutting speed is reduced by 50%.
- 15.a) Explain about the taper turning process by compound swivel method.  
b) What is meant by lapping? Explain about any one of the lapping processes.
16. Explain about the following briefly :  
a) Continuous casting  
b) Friction welding
17. Write short notes on the following :  
a) Blow moulding  
b) Machinability

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