

00335

B.TECH. IN AEROSPACE ENGINEERING (BTAE)

Term-End Examination

June, 2012

BAS-004 : WORKSHOP TECHNOLOGY

Time : 3 hours

Maximum Marks : 70

Note : Answer any seven questions.

1. (a) Describe the main parts of a Radial Drill. 5
Distinguish between "Drilling" and "Boring"
- (b) Explain how Facing Operation is done in a lathe machine ? 5
2. (a) Explain by a suitable sketch the use of Limit Gauges 5
- (b) Briefly state the differences between a Planing and a Shaping machine. 5
3. (a) State the properties of moulding sand 5
- (b) Explain how a depth gauge and an ordinary marking gauge work in carpentry work. 5

4. (a) Giving simple examples explain the difference between Soldering and Brazing 5
- (b) Explain how Oxy-Acetylene Gas flame is used for cutting a steel plate. 5
5. (a) What is Oxy-Acetylene Gas Welding ? Explain how it works. 5
- (b) What are the different types of flames that can be obtained from Oxy-Acetylene gas ? Give their uses. 5
6. (a) What is a Swage Block ? How is it specified ? State its uses. 5
- (b) Explain what is meant by Backing Sand and its difference with Parting Sand ? 5
7. (a) Explain how the problems of "Shrinkage" and "Blow hole" can be reduced in a casting process. 5
- (b) Describe briefly the NC and CNC Machine Tools. 5
8. (a) State the advantages and disadvantages of hot working of steel. 5
- (b) Why cold worked metal need Annealing ? What are the stages encountered by a metal during cold working ? 5

9. (a) Name the different parts of a Flat File. 5
What do you mean by "Grade of File".
What grade of file would you use for shaping
work ?
- (b) State the difference between "Smithing" and 5
"Forging".
10. (a) What is heat treatment of metal ? What are 5
the objectives of Heat Treatment ?
- (b) Distinguish between 'Hardening" and 5
Tempering.
-