

**B.TECH. (AEROSPACE ENGINEERING)
(BTAE)**

Term-End Examination

June, 2014

BAS-004 : WORKSHOP TECHNOLOGY

Time : 3 hours

Maximum Marks : 70

Note : Attempt any seven questions. All questions carry equal marks.

1. (a) Classify carbon steels. Write the composition and use of various carbon steels. **5+5=10**
(b) Distinguish between the following :
 - (i) Metal and Non-metal
 - (ii) Brass and Bronze
2. (a) Explain milling machine with neat sketch.
(b) Explain the process of gear cutting in milling machine. **5+5=10**
3. (a) Discuss the various pattern allowances. **5+5=10**
(b) Classify moulding sand with their composition and use.
4. Enlist various Lathe Operations. Explain any five **10**
Lathe Operations.

5. (a) Define welding. Explain arc welding process in detail. 5+5=10
(b) What are the different types of welding flames and for what applications these are used ?
6. Explain working of (any two) of the following : 5+5=10
(a) Sine bar
(b) Micrometer
(c) Shaping machine
7. Define the following (any five) : 5x2=10
(a) Fits
(b) Tolerance
(c) Casting
(d) Riser and Gate
(e) Sheet metal working
(f) Hot working
(g) Rolling
8. (a) Describe the various types of welding joints.
(b) What are the advantages of CNC machines over NC machine ? Discuss with an example the application of CNC machine. 5+5=10
9. Enlist various hand tools used in carpentry. 10
Explain any two of them with neat sketches.
-