

B.TECH. (AEROSPACE ENGINEERING)
(BTAE)

Term-End Examination

June, 2013

BAS-004 : WORKSHOP TECHNOLOGY

Time : 3 hours

Maximum Marks : 70

Note : Answer any seven questions.

All questions carry equal marks.

-
-
1. Describe the following : 10
 - (a) Low Carbon steel
 - (b) Alloy steels
 - (c) Grey cast iron
 - (d) Phosphor-bronze
 - (e) Brass

 2.
 - (a) Explain types and properties of moulding sand. 5

 - (b) State the various types of Pattern. Explain any two in brief with neat sketches. 5

3. (a) Classify the manufacturing processes, and explain each in brief. 5
- (b) What are the various kinds of production system ? Explain in brief. 5
4. (a) Classify the welding processes. Explain autogenous homogenous and heterogenous welding. 5
- (b) What is extrusion process ? Explain Forward extrusion and backward extrusion. 5
5. (a) Explain in brief the plasma arc welding. Enumerate its advantages. 5
- (b) What is the difference in soldering and brazing ? Give some of their applications. 5
6. (a) Draw a sketch of vertical milling machine and explain its parts. 5
- (b) Explain gear finishing operation in detail 5
7. (a) What are the applications of CNC machines ? Write the advantages and disadvantages of CNC machines. 5
- (b) Draw a neat sketch of a vernier caliper and name its parts. 5

8. (a) What do you understand by LIMITS FITS and Tollerences ? Explain in brief. 5
- (b) What do you understand by 'Deviation' ? Explain the following with the help of a neat sketch. 5
- (i) Actual Deviation
 - (ii) Upper deviation
 - (iii) Lower deviation.
 - (iv) Mean deviation.'
9. (a) State various sand testing methods. Explain any one in brief. 5
- (b) Draw a neat sketch of Ideal Gating system and state the function of an ideal gating system 5
10. (a) Draw a block diagram of a general purpose single spindle drilling machine 5
- (b) Draw simple sketches for the following and explain each. 5
- (i) drilling
 - (ii) reaming
 - (iii) Counter boring
 - (iv) spot facing
 - (v) Counter sinking