

Total No. of Pages : 02

Total No. of Questions : 09

B.Tech.(Aerospace Engg.) (2012 Onwards) (Sem.-5)

AEROSPACE MATERIALS

Subject Code : ASPE-302

M.Code : 71836

Time : 3 Hrs.

Max. Marks : 60

INSTRUCTION TO CANDIDATES :

1. **SECTION-A is COMPULSORY consisting of TEN questions carrying TWO marks each.**
2. **SECTION-B contains FIVE questions carrying FIVE marks each and students have to attempt any FOUR questions.**
3. **SECTION-C contains THREE questions carrying TEN marks each and students have to attempt any TWO questions.**

SECTION-A

1. Answer briefly :

- a) What is Pulforming?
- b) What is injection molding?
- c) What is blow molding?
- d) What are whiskers?
- e) Define malleability.
- f) What is normalizing?
- g) What is medium carbon steel?
- h) What is cold shortness?
- i) What is passivating?
- j) What is intergranular corrosion?

SECTION-B

2. What is SAE numbering system? Explain SAE 2330.
3. Discuss and explain the nomenclature of aluminium alloys.
4. Explain case hardening.
5. Name the methods of casting aluminium alloys. Discuss any one.
6. Name various applications of composites. Discuss any one in detail.

SECTION-C

7. What are the various metal joining processes? Explain any one permanent joining process.
8. Explain the manufacture of Titanium with the help of a flow chart. In how many ways hydrogen can contaminate titanium?
9. Discuss particulate composites in details.

NOTE : Disclosure of Identity by writing Mobile No. or Making of passing request on any page of Answer Sheet will lead to UMC against the Student.