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Total No. of Pages : 02

Total No. of Questions : 18

B.Sc. (Hons) Aircraft Maintenance (2018 Batch) (Sem.-3)

AIRCRAFT SYSTEMS-I

Subject Code : BSCARM-301-18

M.Code : 76599

Time : 3 Hrs.

Max. Marks : 60

INSTRUCTIONS 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

Distinguish between the following :

1. Centre of gravity and balance
2. Taxiing and towing
3. Gravity refueling and pressure refueling
4. De-icing and Anti-icing
5. Refueling and defueling
6. Indications and warnings
7. Reservoir and accumulator
8. APU and ground cart
9. Air cycle and vapor cycle machines
10. Primary controls and secondary controls

SECTION-B

11. Explain the process of preparation of aircraft for weighing. (5)
12. What is Heavy Landing? How inspection is carried out after heavy landing? (2,3)
13. Write a note on “Emergency Equipment And Their Requirement”. (5)
14. Explain the effects of environmental conditions on aircraft handling and operation. (5)
15. Explain emergency pressure generation systems for hydraulic power. (5)

SECTION-C

16. Explain construction of a landing gear using neat and labelled sketch. Explain the mechanism of extension and retraction. Explain operation of normal and emergency landing gear system. (3,3,4)
17. Explain the following with respect to fuel system :
 - (a) Fuel system layout (4)
 - (b) Supply system (3)
 - (c) Cross-feed and transfer (3)
18. Explain the operation of following flight control systems :
 - (a) Manual control system (2)
 - (b) Hydraulic control system (2)
 - (c) Pneumatic control system (2)
 - (d) Electrical control system (2)
 - (e) Fly-by-wire control system. (2)

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.