

**834****October 2018**

*Time – Three hours*  
*(Maximum Marks: 75)*

*[N.B: (1) Q.No. 8 in PART – A and Q.No. 16 in PART – B are compulsory. Answer any FOUR questions from the remaining in each PART – A and PART – B*

*(2) Answer division (a) or division (b) of each question in PART – C.*

*(3) Each question carries 2 marks in PART – A, 3 marks in Part – B and 10 marks in PART – C.]*

**PART – A**

1. What is an aircraft?
2. What are the main parts of an aircraft?
3. What are rudders?
4. What is surface cleaning for an aircraft?
5. What are the bonding methods for surface protection of an aircraft?
6. Give the significance of emergency exits in aircraft.
7. What is the use of engine mounts?
8. What is the purpose of a stabilizer in an aircraft?

**PART – B**

9. Explain the term empennage.
10. What is the difference between an aircraft and hot air balloon?
11. What are reference lines?
12. What is the use of tabs?
13. Write short notes on chromatin.
14. Draw roughly and mark the parts of stabilizers.
15. What is the purpose of fire walls?
16. What is an under carriage?

[Turn over.....

PART – C

17. (a) Write in detail on zone identification systems.  
(Or)  
(b) List out the major components of an aircraft and write notes on any two.
18. (a) Explain in detail about the primary control surfaces of an aircraft.  
(Or)  
(b) Explain about the types of fuselage with neat sketches.
19. (a) (i) Explain all the bonding methods of surface protection.  
(ii) Why surface protection is needed?  
(Or)  
(b) Explain in detail about the structural assembly techniques.
20. (a) (i) Briefly explain about pressurization sealing.  
(ii) Explain the construction of fuselage-ATA 52.  
(Or)  
(b) Explain about the construction and mechanism in windows and wind screen.
21. (a) Explain the construction of stabilizers.  
(Or)  
(b) Describe (i)Mass balancing (ii)Aerodynamic balancing (iii)Flaps (iv)Spoilers.

-----