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Question Paper Code: 1017321

B.E. / B.Tech. DEGREE EXAMINATIONS, NOV/ DEC 2024

Seventh Semester

Aeronautical Engineering

U20AE715 – AIRWORTHINESS AND FLIGHT SAFETY

(Regulation 2020)

Time: Three Hours

Maximum: 100 Marks

Answer ALL questions

PART – A

(10 x 2 = 20 Marks)

1. What are the requirements for maintaining an aircraft in an airworthy condition.
2. Define “On Condition” maintenance.
3. What is MEL?
4. Define cockpit checklist.
5. What are “alert values” in terms of aircraft maintenance.
6. What is QC manual?
7. What is a CAR 145 organization?
8. Define TBO.
9. As per CAR series “T”, what is meant by series aircraft?
10. How do we specify “In flight Shut down”?

PART – B

(5 x 16 = 80 Marks)

11. (a) Outline the requirements for issue of Type Certificate for a new design aircraft. (16)

(OR)

- (b) Explain the Quality Control requirements of an Approved Organization. (16)

12. (a) Explain the use and approval of MEL. (16)

(OR)

- (b) Illustrate the scope and use of cockpit and emergency checklist. (16)

13. (a) Explain the reliability program for Scheduled Public Air Transport Operator. (16)

(OR)

- (b) What are the primary maintenance processes? Also explain how the process is approved by Regional Airworthiness Office of DGCA. (16)

14. (a) Explain the different categories of Approved Organization. (16)

(OR)

- (b) Summarize and personnel requirements for an Approved Organization? (16)

15. (a) Outline the circumstances requiring Flight Testing of an aircraft. (16)

(OR)

- (b) Explain the requirements and procedure for Test flight of an aircraft. (16)