Reg. No. : | | | | | | | | | | | | |

Question Paper Code : 88529

B.E./B.Tech. DEGREE EXAMINATIONS, NOVEMBER/DECEMBER 2021.

Seventh Semester

Aeronautical Engineering

AE 704 – AERO ENGINE MAINTENANCE AND REPAIR

(Regulations 2008)

Time : Three hours Maximum : 100 marks

Answer ALL questions.

PART A — (10 × 2 = 20 marks)

1. List the advantages of the opposed – type engine design.

2. What is the purpose of a hopper in an oil tank?

3. What is meant by Trouble shooting?

4. Differentiate between internal and external supercharges.

5. Enumerate the types of Jet Engine used in aircraft.

6. What is meant by 'online maintenance'?

7. State the three major sections of a gas-turbine engine.

8. Describe the function of inlet guide vanes.

9. What is non routine inspection?

10. Define trouble shooting.

PART B — (5 × 16 = 80 marks)

11. (a) With the help of a simplified diagram, explain the Fundamental operation of a pressure injection carburetor. (16)

Or

(b) Explain the factors involved to give the power output of piston engine.(16)

12. (a) Explain the various checks carried out on camshaft during dimensional inspection in overhaul shop. (16)

Or

(b) State the probable causes and remedies of the following defects.

(i) High CHT (8)

(ii) Engine does not start. (8)

13. (a) Explain in detail about the various methods of NDT techniques. (16)

Or

(b) Write short notes on :

(i) Power check of piston engine (8)

(ii) Oil consumption rum. (8)

14. (a) Describe the special inspection procedures carried out under the following defects occur in gas-turbine engine:

(i) Foreign Object Damage (8)

(ii) Blade Damage (8)

Or

(b) Explain the preservation and de-preservation procedures on gas turbine engine. (16)

15. (a) Explain the balancing of gas turbine components. (16)

Or

(b) Discuss the condition monitoring of the gas turbine engine on ground and at attitude. (16)
