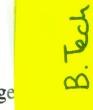
| (19) | |
|----------|--|
| Roll No. | |



Total Page

209506

Dec., 2018 **B.Tech. V Semester** AIRCRAFT ENGINE OPERATION AND MAINTENANCE (ME-315C)

Time : 3 Hours]

[Max. Marks: 75

Instructions :

- It is compulsory to answer all the questions (1.5 marks (i) each) of Part-A in short.
- Answer any four questions from Part-B in detail. (ii)
- (iii) Different sub-parts of a question are to be attempted adjacent to each other.

| | | PART-A | CO |
|-----|--------|---|---------|
| 1 | (a) | What is Fuselage? | 1.5 CO1 |
| | (b) | What are main components of Empennage? | 1.5 CO1 |
| | (c) | What is second law of thermodynamics? | 1.5 CO1 |
| | (d) | d) Write main components of Engine of aircraft. | |
| | | | 1.5 CO1 |
| | (e) | What is engine indicating system? | 1.5 CO2 |
| | (f) | What is carburettor icing? | 1.5 CO2 |
| 209 | 9506/0 | 0/111/178 | [P.T.O. |



(g) Write main components of lubrication system of aircraft.

1.5 CO3

- (h) What is "Full authority digital electronic engine control"
 1.5 CO4
 1.5 CO4
- (i) What is Viscous Drag? 1.5 CO3
- (j) What is role of ATC ? 1.5 CO2

PART-B

- (a) Write main components of an aircraft and explain each in detail.
 8 CO1
 - (b) What is airfoil? Write the shapes of airfoil and explain the forces Acting in Flight.7 CO1
- (a) What is flight stability? Explain its dynamics with neat sketch.
 8 CO1
 - (b) Explain Brayton Air standard cycles with application in aviation engineering.
 7 CO1
- 4. (a) Explain the Gas turbine used in aircraft. What is after burning gas turbine cycle? 8 CO2
 - (b) Classify the combustion chamber. Explain the types of nozzle with neat sketch.7 CO2
- 5. (a) Explain the fuel system of an aircraft engine. What is thrust reverser? 8 CO3
 - (b) Describe the environmental control system and engine indicating system of an aircraft engine. 7 CO3



- 6. (a) What are the Standard practices used in aero engine maintenance? 8 CO4
 - (b) Write the basic checks to be performed on an aircraft before it takeoff. 7 CO4
- 7. Write short notes on the following :
 - (a) Characteristics of turbo-prop propulsion. 5 CO2
 - (b) Environmental control system and engine indicating system. 5 CO3
 - (c) Special features of military aircraft. 5 CO1