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Gandhi Institute of Engineering and Technology University, Odisha, Gunupur
(GIET University)

B. Tech (First Semester - Regular) Examinations, January 2026

25FYES11010 – Basics of Turbine Aeroplane

Time: 3 hrs — Maximum: 60 Marks

Answer ALL questions
(The figures in the right hand margin indicate marks)

PART – A **(2 x 5 = 10 Marks)**

Q.1. Answer ***ALL*** questions

		CO #	Blooms Level
a.	What is meant by primary structure in an aircraft? Give one example.	CO1	K2
b.	State the purpose of aircraft bonding.	CO1	K2
c.	Around what three axis do the primary flight controls move an aeroplane?	CO1	K2
d.	What is full cantilever design of wing?	CO2	K2
e.	State 5 types of structural stresses with their definition?	CO2	K2

PART – B **(10 x 5 = 50 Marks)**

Answer ***ALL*** the questions

		Marks	CO #	Blooms Level
2. a.	Explain airworthiness requirements for structural strength of an aircraft.		CO1	K2
b.	Name types of structural stresses with its effects on an aircraft structure.		CO1	K2
	OR			
c.	Describe truss type fuselage design with a neat diagram.		CO1	K2
d.	Explain Wing, Empennage And Engine Attachment.		CO5	K2
3.a.	Write a brief note on Structure Assembly Techniques.		CO2	K3
b.	Explain Anodizing And Chromating process.		CO2	K3
	OR			
c.	Explain how engine alignment check is performed.		CO2	K2
d.	Explain how fin verticality check is performed.		CO2	K2
4.a.	Explain how symmetry check is performed on an aircraft.		CO2	K2
b.	Write a brief note on pressurization sealing done on an aircraft.		CO4	K2
	OR			
c.	Write a brief note on wing construction.		CO2	K3
d.	Explain the purpose and construction of engine mounts.		CO4	K3
5.a.	Write a brief note on Aircraft Doors.		CO2	K2
b.	Explain wing ribs and state its purpose.		CO2	K2
	OR			
c.	Explain wing spars and state its purpose.		CO2	K2
d.	Write a brief note on aircraft wing skin.		CO1	K4
6.a.	What is wet wing? Explain its design construction.		CO2	K2
b.	Write a short on firewall and engine mounts.		CO3	K3
	OR			
c.	Explain cladding technique used as surface protection.		CO2	K3
d.	Explain static electricity dissipation methods in aircraft.		CO5	K3

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