B.E.(Aeronautical Engineering) Semester Seventh (C.B.S.)

Aircraft System & Instrumentation

KNT/KW/16/7523 P. Pages: 2 Max. Marks: 80 Time: Three Hours All questions carry marks as indicated. Notes: 1. Solve Question 1 OR Questions No. 2. 2. 3. Solve Ouestion 3 OR Ouestions No. 4. Solve Question 5 OR Questions No. 6. 4. 5. Solve Question 7 OR Questions No. 8. Solve Ouestion 9 OR Ouestions No. 10. 6. Solve Question 11 OR Questions No. 12. 7. Due credit will be given to neatness and adequate dimensions. 8. 9. Assume suitable data whenever necessary. 10. Diagrams and chemical equations should be given whenever necessary. Illustrate your answers whenever necessary with the help of neat sketches. 11. Use of non programmable calculator is permitted. 12. 1. a) Write short note on ILS. 6 List out the advantages of fly by wire system over conventional system. 7 b) OR Explain the types of check valves used in aircraft hydraulic system 2. 6 a) Describe the working and types of selector valves used in Aircraft hydraulic system. 7 b) Explain the basic hydraulic system with power driven pump system with neat sketches. 3. a) 7 Explain the types of accumulators with neat sketches. 7 b) OR Describe the typical air pressure system used in pneumatic system. 7 4. a) Explain the main component of Aircraft pneumatic system with sketches. 7 b) Describe hydraulic landing gear retraction mechanism. 5. a) 6 Explain in detail simplified emergency break system. b) 7 OR 6. a) What is fuel Jettison or dumping system? 6 Describe cross-feed fuel system with neat sketch. 7 b)

7.	a)	Explain the turbojet fire protection system.	7
	b)	Describe Ice prevention methods.	6
		OR	
8.	a)	List out fire detection requirements.	7
	b)	Describe continuous flow oxygen system.	6
9.	a)	What is the thermal anti- Icing system.	6
	b)	What do you mean by Purging the system.	7
		OR	
10.	a)	Describe types of fire and fire zone. Classification.	7
	b)	Differentiate between Defueling and Jettison fuel system.	6
11.	a)	Describe types of fire and fire zone. Classification. Differentiate between Defueling and Jettison fuel system. Write short notes on i) Gyroscope ii) Tachometer. Write about engine instruments.	7
	b)	Write about engine instruments.	7
		OR	
12.	a)	Write short notes on i) Altimeter ii) Air speed Indicator.	7
	b)	Write about working principles of flight instruments.	7
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