Syllabus for LWTR

" LARGE AIRCRAFTS " (More than 5700 kg)
Avionics paper (1)

1. Pitot static system & instruments:

- Flight parameters instruments (Alt , A.S.I , V.S.I , ... etc)
- Probes, Vents, drain traps.
- Aircraft installation, testing & maintenance practices

3. Attitude indication system:

- Gyroscopes, indications
- Cautions
- Installation

5. Airdata computation:

- Sensors and inputs
- Signal processing
- Signal outputs & displays
- Aircraft installation, testing & maintenance practices

7. Flight director system:

- Input signals
- Modes
- Displays

9. Electronic display systems:

- CRT, LED, LCD displays
- EADI, EHSI, symbol generators
- EICAS, ECAM

11. F.D.R:

- Requirements and inputs
- Entry Panel
- Data recording method
- Failure monitor

13. Yaw dampers:

- Dutch roll phenomena
- Yaw sensing
- Yaw signal processing
- Synchronization
- Modes of operation

15. Pitch trim system:

- Modes of operation: Electric
Auto trim
Mach trim
Alpha trim
sensors , computation for each mode

17. Autopilot system:

- Modes
- Inputs
- Sensors
- Control panel
- Failure warning

19. Automatic landing:

- Principles & approach Category
- Types of system operation: dual or triple ch.
- Rollont control

21. Auto throttle system:

- Control inputs
- Sensors
- Modes of operation

12- Digital flight system:

F.M.S : Principles of operation
Components, displays

13- Compass System:

- D.R.M compass installation
- Compass swinging area
- Methods & Procedures for swinging
- Flux valve operation
- Deviation: Calculation & effects on compass
- Compensation & adjustment procedures