

Module 7

Maintenance Practices

	Level		
	A	B1	B2
7.1 Safety Precautions - Aircraft & Workshop Aspects of safe working practices including precautions to take when working with electricity, gases especially oxygen, oils and chemicals. Also, instruction in the remedial action to be taken in the event of a fire or another accident with one or more of these hazards including knowledge of extinguishing agents.	3	3	3
7.2 Workshop Practices Care of tools, control of tools, use of workshop materials; Dimensions, allowances & tolerances, standards of workmanship; Calibration of tools & equipment, calibration standards.	3	3	3
7.3 Tools Common hand tool types; Common power tool types; Operation & use of precision measuring tools; Lubrication equipment & methods; Operation, function & use of electrical general test equipment.	3	3	3
7.4 Avionic General Test Equipment Operation, function & use of avionic general test equipment.	-	2	3
7.5 Engineering Drawings, Diagrams & Standards Drawing types & diagrams, their symbols, dimensions, tolerances & projections; Identifying title block information; Microfilm, microfiche & computerised presentations; Specification 100 of the Air Transport Association (ATA) of America; Aeronautical & other applicable standards including ISO, AN, MS, NAS & MIL; Wiring diagrams & schematic diagrams.	1	2	2
7.6 Fits & Clearances Drill sizes for bolt holes, classes of fits; Common system of fits & clearances; Schedule of fits & clearances for aircraft & engines; Limits for bow, twist & wear; Standard methods for checking shafts, bearings & other parts.	1	2	1
7.7 Electrical Cables & Connectors Continuity, insulation & bonding techniques & testing; Use of crimp tools: hand & hydraulic operated; Testing of crimp joints; Connector pin removal & insertion; Co-axial cables: testing & installation precautions; Wiring protection techniques: Cable looming & loom support, cable clamps, protective sleeving techniques including heat shrink wrapping, shielding.	1	2	2
7.8 Riveting Riveted joints, rivet spacing & pitch; Tools used for riveting & dimpling; Inspection of riveted joints.	1	2	-
7.9 Pipes & Hoses Bending & belling/flaring aircraft pipes; Inspection & testing of aircraft pipes & hoses; Installation & clamping of pipes.	1	2	-
7.10 Springs Inspection & testing of springs.	1	2	-
7.11 Bearings Testing, cleaning & inspection of bearings; Lubrication requirements of bearings; Defects in bearings & their causes.	1	2	-
7.12 Transmissions Inspection of gears, backlash; Inspection of belts & pulleys, chains & sprockets; Inspection of screw jacks, lever devices, push-pull rod systems.	1	2	-

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7.13 Control Cables	A	B1	B2
Swaging of end fittings; Inspection & testing of control cables; Bowden cables; aircraft flexible control systems.	1	2	-
7.14 Material Handling	A	B1	B2
Sheet Metal: Marking out and calculation of bend allowance; Sheet metal working, including bending & forming; Inspection of sheet metal work.	-	2	-
Composite & non-metallic: Bonding practices; Environmental conditions; Inspection methods.	-	2	-
7.15 Welding, Brazing, Soldering & Bonding	A	B1	B2
a) Soldering methods; inspection of soldered joints;	-	2	2
b) Welding & brazing methods; Inspection of welded & brazed joints; Bonding methods & inspection of bonded joints.	-	2	-
7.16 Aircraft Weight & Balance	A	B1	B2
a) Centre of Gravity / Balance limits calculation: use of relevant documents;	-	2	2
b) Preparation of aircraft for weighing; Aircraft weighing.	-	2	-
7.17 Aircraft Handling & Storage	A	B1	B2
Aircraft taxiing / towing & associated safety precautions; Aircraft jacking, chocking, securing & associated safety precautions; Aircraft storage methods; Refuelling / defuelling procedures; De-icing/anti-icing procedures; Electrical, hydraulic & pneumatic ground supplies; Effects of environmental conditions on aircraft handling & operation.	2	2	2
7.18 Disassembly, Inspection, Repair & Assembly Techniques	A	B1	B2
a) Types of defects & visual inspection techniques; Corrosion removal, assessment & re-protection.	2	3	2
b) General repair methods, Structural Repair Manual; Ageing, fatigue & corrosion control programmes	-	2	-
c) Non destructive inspection techniques including, penetrant, radiographic, eddy current, ultrasonic & boroscope methods.	-	2	1
d) Disassembly & re-assembly techniques.	2	2	2
e) Trouble shooting techniques.	-	2	2
7.19 Abnormal Events	A	B1	B2
a) Inspections following lightning strikes & HIRF penetration.	2	2	2
b) Inspections following abnormal events such as heavy landings & flight through turbulence.	2	2	-
7.20 Maintenance Procedures	A	B1	B2
Maintenance planning; Modification procedures; Stores procedures; Certification/release procedures; Interface with aircraft operation; Maintenance Inspection/Quality Control/Quality Assurance; Additional maintenance procedures; Control of life limited components.	1	2	2