Nota: la definizione di livello è quella indicata nell'appendice 1 alla Parte 66.

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| ***MODULE 6 - MATERIALS AND HARDWARE*** | |
| **6.1 Aircraft Materials — Ferrous** | |
| (a) Characteristics, properties and identification of common alloy steels used in aircraft;<br>Heat treatment and application of alloy steels; | Lev. 1 |
| (b) Testing of ferrous materials for hardness, tensile strength, fatigue strength and impact resistance. | Lev. 1 |
| **6.2 Aircraft Materials — Non-Ferrous** | |
| (a) Characteristics, properties and identification of common non-ferrous materials used in aircraft;<br>Heat treatment and application of non-ferrous materials; | Lev. 1 |
| (b) Testing of non-ferrous material for hardness, tensile strength, fatigue strength and impact resistance. | Lev. 1 |
| **6.3 Aircraft Materials — Composite and Non-Metallic** | |
| **6.3.1 Composite and non-metallic other than wood and fabric** | |
| (a) Characteristics, properties and identification of common composite and non-metallic materials, other than wood, used in aircraft;<br>Sealant and bonding agents. | Lev. 2 |
| **6.4 Corrosion** | |
| (a) Chemical fundamentals;<br>Formation by, galvanic action process, microbiological, stress; | Lev. 1 |
| (b) Types of corrosion and their identification;<br>Causes of corrosion;<br>Material types, susceptibility to corrosion. | Lev. 2 |
| **6.5 Fasteners** | |
| **6.5.1 Screw threads**<br>Screw nomenclature;<br>Thread forms, dimensions and tolerances for standard threads used in aircraft;<br>Measuring screw threads; | Lev. 2 |
| **6.5.2 Bolts, studs and screws**<br>Bolt types: specification, identification and marking of aircraft bolts, international standards;<br>Nuts: self locking, anchor, standard types;<br>Machine screws: aircraft specifications;<br>Studs: types and uses, insertion and removal;<br>Self tapping screws, dowels. | Lev. 2 |
| **6.5.3 Locking devices**<br>Tab and spring washers, locking plates, split pins, pal-nuts, wire locking, quick release fasteners, keys, circlips, cotter pins. | Lev. 2 |
| **6.5.4 Aircraft rivets**<br>Types of solid and blind rivets: specifications and identification, heat treatment. | Lev. 1 |
| **6.6 Pipes and Unions** | |
| (a) Identification of, and types of rigid and flexible pipes and their connectors used in aircraft; | Lev. 2 |
| (b) Standard unions for aircraft hydraulic, fuel, oil, pneumatic and air system pipes. | Lev. 1 |

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| **6.7 Springs**<br>Types of springs, materials, characteristics and applications. | Lev. 1 |
| **6.8 Bearings**<br>Purpose of bearings, loads, material, construction;<br>Types of bearings and their application. | Lev. 2 |
| **6.9 Transmissions**<br>Gear types and their application;<br>Gear ratios, reduction and multiplication gear systems, driven and driving gears, idler gears, mesh patterns;<br>Belts and pulleys, chains and sprockets. | Lev. 2 |
| **6.10 Control Cables**<br>Types of cables;<br>End fittings, turnbuckles and compensation devices;<br>Pulleys and cable system components;<br>Bowden cables;<br>Aircraft flexible control systems. | Lev. 1 |

| ***MODULE 7 - MAINTENANCE PRACTICES*** | |
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| **7.6 Fits and Clearances**<br>Drill sizes for bolt holes, classes of fits;<br>Common system of fits and clearances;<br>Schedule of fits and clearances for aircraft and engines;<br>Limits for bow, twist and wear;<br>Standard methods for checking shafts, bearings and other parts. | Lev. 1 |
| **7.16 Aircraft Weight and Balance**<br>(a) Centre of Gravity/Balance limits calculation: use of relevant documents; | Lev. 2 |
| **7.17 Aircraft Handling and Storage**<br>Aircraft taxiing/towing and associated safety precautions;<br>Aircraft jacking, chocking, securing and associated safety precautions;<br>Aircraft storage methods;<br>Refuelling/defuelling procedures;<br>De-icing/anti-icing procedures;<br>Electrical, hydraulic and pneumatic ground supplies.<br>Effects of environmental conditions on aircraft handling and operation. | Lev. 2 |

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| MODULE 13 - AIRCRAFT AERODYNAMICS, STRUCTURES AND SYSTEMS | |
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| **13.10 On board Maintenance Systems (ATA 45)**<br>Central maintenance computers;<br>Data loading system;<br>Electronic library system;<br>Printing;<br>Structure monitoring (damage tolerance monitoring). | Lev. 3 |

| MODULE 14 - PROPULSION | |
|---|---|
| **14.1 Turbine Engines** | |
| (a) Constructional arrangement and operation of turboshaft engines; | Lev. 1 |
| (b) Electronic Engine control and fuel metering systems (FADEC). | Lev. 2 |
| **14.2 Engine Indicating Systems**<br>Exhaust gas temperature/Interstage turbine temperature systems;<br>Engine speed;<br>Engine Thrust Indication: Engine Pressure Ratio, engine turbine discharge pressure or jet pipe pressure systems;<br>Oil pressure and temperature;<br>Fuel pressure, temperature and flow;<br>Manifold pressure;<br>Engine torque;<br>Propeller speed. | Lev. 2 |
| **14.3 Starting and Ignition Systems**<br>Operation of engine start systems and components;<br>Ignition systems and components;<br>Maintenance safety requirements; | Lev. 2 |

**Domande di esame** (a risposta multipla): 100
**Durata esame**: 125 minuti