Réf.	Intitulé de l'item Sous-item (FR)	Niv. A3	Contenu détaillé (EN — texte EASA original)
MODULE 1 — MATHÉMATIQUES			
1.1	Arithmétique	1	Arithmetical terms and signs, methods of multiplication and division, fractions and decimals, factors and multiples, weights, measures and conversion factors, ratio and proportion, averages and percentages, areas and volumes, squares, cubes, square and cube roots.
1.2(a)	Algèbre — Expressions algébriques simples	1	Evaluating simple algebraic expressions, addition, subtraction, multiplication and division, use of brackets, simple algebraic fractions.
1.3(b)	Géométrie — Représentation graphique	2	Graphical representation: nature and uses of graphs, graphs of equations/functions.
MODULE 2 — PHYSIQUE			
2.1	Matière	1	Nature of matter: the chemical elements, structure of atoms, molecules; chemical compounds; states: solid, liquid, and gaseous; changes between states.
2.2.1	Mécanique — Statique	1	Forces, moments and couples, representation as vectors; centre of gravity; elements of theory of stress, strain, and elasticity: tension, compression, shear, and torsion; nature and properties of solid, fluid, and gas matter; pressure and buoyancy in liquids (barometers).
2.2.2	Mécanique — Cinématique	1	Linear movement: uniform motion in a straight line, motion under constant acceleration (motion under gravity); rotational movement: uniform circular motion (centrifugal/centripetal forces); periodic motion: pendular movement; simple theory of vibration, harmonics, and resonance; velocity ratio, mechanical advantage, and efficiency.
2.2.3(a)	Dynamique — Masse, force et énergie	1	Mass; force, inertia, work, power, energy (potential, kinetic and total energy), heat, efficiency.
2.2.3(b)	Dynamique — Quantité de mouvement et conservation	1	Momentum, conservation of momentum; impulse; gyroscopic principles; friction: nature and effects, coefficient of friction (rolling resistance).
2.2.4(a)	Dynamique des fluides — Pesanteur et masse volumique	2	Specific gravity and density.
2.2.4(b)	Dynamique des fluides — Viscosité, compressibilité, pressions	1	Viscosity, fluid resistance, effects of streamlining; effects of compressibility on fluids; static, dynamic, and total pressure: Bernoulli's Theorem, venturi.

2.3(a)	Thermodynamique — Température	**2**	Temperature: thermometers and temperature scales (Celsius, Fahrenheit and Kelvin); definition of heat.
2.3(b)	Thermodynamique — Chaleur	**1**	Heat capacity, specific heat; heat transfer: convection, radiation and conduction; volumetric expansion; first and second law of thermodynamics; gases: ideal gases laws, specific heat at constant volume and constant pressure, work done by expanding gas; isothermal, adiabatic expansion and compression, engine cycles, constant volume and constant pressure, refrigerators and heat pumps; latent heats of fusion and evaporation, thermal energy, heat of combustion.
MODULE 3 — FONDAMENTAUX DE L'ÉLECTRICITÉ			
3.1	Théorie de l'électron	**1**	Structure and distribution of electrical charges within atoms, molecules, ions, and compounds; molecular structure of conductors, semiconductors, and insulators.
3.2	Électricité statique et conduction	**1**	Static electricity and distribution of electrostatic charges; electrostatic laws of attraction and repulsion; units of charge, Coulomb's law; conduction of electricity in solids, liquids, gases and in vacuum.
3.3	Terminologie électrique	**1**	The following terms, their units and factors affecting them: potential difference, electromotive force, voltage, current, resistance, conductance, charge, conventional current flow, electron flow.
3.4	Production d'électricité	**1**	Production of electricity by the following methods: light, heat, friction, pressure, chemical reaction, magnetism, and motion.
3.5	Sources d'électricité en courant continu	**1**	Construction and basic chemical reaction of primary cells, secondary cells, lead acid cells, nickel cadmium cells, lithium cells, nickel cells and other alkaline cells; cells connected in series and in parallel; internal resistance and its effect on a battery; construction, materials, and operation of thermocouples; operation of photocells.
3.6	Circuits en courant continu	**1**	Ohm's law, Kirchhoff's voltage, and current laws; calculations using the above laws to find resistance, voltage, and current; significance of the internal resistance of a supply.
3.13	Théorie du courant alternatif	**1**	Sinusoidal waveform: phase, period, frequency, cycle; instantaneous, average, root mean square, peak, peak-to-peak current values and calculations of these values in relation to voltage, current and power; triangular/square waves; single-phase/three-phase principles.

MODULE 5 — TECHNIQUES NUMÉRIQUES / SYSTÈMES D'INSTRUMENTS ÉLECTRONIQUES			
5.1	Systèmes d'instruments électroniques	1	Typical arrangements of systems and cockpit layout of electronic instrument systems.
5.6(a)	Architecture informatique — Terminologie et technologie	1	Computer terminology (including bit, byte, software, hardware, CPU, IC, and various memory devices such as RAM, ROM, PROM); computer technology (as applied in aircraft systems).
5.11	Afficheurs électroniques	1	Principles of operation of common types of displays used in modern aircraft, including cathode-ray tubes (CRTs), light-emitting diodes (LEDs) and liquid crystal displays (LCDs).
5.12	Dispositifs sensibles aux décharges électrostatiques	1	Special handling of components sensitive to electrostatic discharges; awareness of risks and possible damage, component, and personnel antistatic protection devices.
5.15	Systèmes aéronefs électroniques/numériques typiques	1	General arrangement of typical electronic/digital aircraft systems and associated BITE (Built-In Test Equipment), such as: ACARS, FBW — Fly-by-Wire, FMS — flight management system, IRS — inertial reference system; ECAM, EICAS, EFIS, GNSS, TCAS, Integrated Modular Avionics, Cabin Systems, Information Systems.
MODULE 6 — MATÉRIAUX ET QUINCAILLERIE			
6.1(a)	Matériaux ferreux — Aciers alliés utilisés en aéronautique	1	Characteristics, properties and identification of common alloy steels used in aircraft; heat treatment and application of alloy steels.
6.2(a)	Matériaux non ferreux — Caractéristiques	1	Characteristics, properties and identification of common non-ferrous materials used in aircraft; heat treatment and application of non-ferrous materials.
6.3.1(a)	Matériaux composites et non métalliques — Caractéristiques	1	Characteristics, properties and identification of common composite and non-metallic materials, other than wood, used in aircraft; sealant and bonding agents.
6.3.1(b)	Matériaux composites et non métalliques — Détection des défauts	1	Detection of defects/deterioration in composite and non-metallic materials.
6.3.2	Structures en bois	1	Construction methods of wooden airframe structures; characteristics, properties and types of wood and glue used in aeroplanes; preservation and maintenance of wooden structures; types of defects in wood material and wooden structures; detection of defects in wooden structures; repair of wooden structures.
6.4(a)	Corrosion — Fondamentaux chimiques	1	Chemical fundamentals; formation by galvanic action process, microbiological contamination, mechanical stress.

6.4(b)	Corrosion — Types de corrosion	**2**	Types of corrosion and their identification; causes of corrosion; material types, and their susceptibility to corrosion.
6.5.1	Fixations — Filetages	**2**	Screw nomenclature; thread forms, dimensions and tolerances for standard threads used in aircraft; measuring screw threads.
6.5.2	Fixations — Boulons, goujons et vis	**2**	Bolt types: specification, identification and marking of aircraft bolts, international standards; nuts: self-locking, anchor, standard types; machine screws: aircraft specifications; studs: types and uses, insertion, and removal; self-tapping screws, dowels.
6.5.3	Fixations — Dispositifs de freinage	**2**	Tab and spring washers, locking plates, split pins, pal-nuts, wire locking, quick-release fasteners, keys, circlips, cotter pins.
6.5.4	Fixations — Rivets aéronautiques	**1**	Types of solid and blind rivets: specifications and identification, heat treatment.
6.6(a)	Tuyauteries et raccords — Identification	**2**	Identification and types of rigid and flexible pipes and their connectors used in aircraft.
6.6(b)	Tuyauteries et raccords — Raccords normalisés	**2**	Standard unions for aircraft hydraulic, fuel, oil, pneumatic and air system pipes.
6.8	Roulements	**1**	Purpose of bearings, loads, material, construction; types of bearings and their application.
6.9	Transmissions mécaniques	**1**	Gear types and their application; gear ratios, reduction and multiplication gear systems, driven and driving gears, idler gears, mesh patterns; belts and pulleys, chains and sprockets.
6.10	Câbles de commande	**1**	Types of cables; end fittings, turnbuckles and compensation devices; pulleys and cable system components; Bowden cables; aircraft flexible control systems.
6.11	Câbles électriques et connecteurs	**1**	Cable types, construction and characteristics; high-tension and coaxial cables; crimping; connector types, pins, plugs, sockets, insulators, current and voltage rating, coupling, identification codes.

MODULE 7 — PRATIQUES DE MAINTENANCE			
7.1	Précautions de sécurité — Aéronef et atelier	3	Aspects of safe working practices including precautions to be taken when working with electricity, gases (especially oxygen), oils, and chemicals. Fuel tank safety and fuel tank entry procedures and precautions. Awareness and precautions regarding aircraft equipped with ballistic recovery systems. Instructions for the remedial action to be taken in the event of a fire or another accident, including information on fire-extinguishing agents.
7.2	Pratiques d'atelier	3	Care of tools, control of tools, use of workshop materials; dimensions, allowances and tolerances, workmanship standards; calibration of tools and equipment, calibration standards.
7.3	Outillage	3	Common hand-tool types; common power-tool types; operation and use of precision-measuring tools; lubrication equipment and methods; operation, function, and use of electrical general test equipment.
7.5	Dessins techniques, schémas et normes	1	Drawing types and diagrams, their symbols, dimensions, tolerances and projections; identification of title block information; microfilm, microfiche, and computerised presentations; Specification 100 of the Air Transport Association (ATA) of America; aeronautical and other applicable standards including ISO, AN, MS, NAS and MIL; wiring diagrams and schematic diagrams.
7.6	Ajustements et jeux fonctionnels	1	Drill sizes for bolt holes, classes of fits; common system for fits and clearances; schedule of fits and clearances for aircraft and engines; limits for bow, twist and wear; standard methods for checking shafts, bearings, and other parts.
7.7	Système d'interconnexion du câblage électrique (EWIS)	1	Continuity, insulation and bonding techniques and testing; use of crimp tools: hand and hydraulic operated; testing of crimp joints; connector pin removal and insertion; coaxial cables: testing and installation precautions; identification of wire types, their inspection criteria and damage tolerance; wiring protection techniques: cable looming and loom support, cable clamps, protective sleeving techniques including heat shrink wrapping, shielding; High-Intensity Radiated Fields (HIRF) and protection principles; soldering of electrical wires, EWIS installations, inspection, repair, maintenance, and cleanliness standards.
7.14.3	Fabrication additive	1	Common additive manufacturing techniques and their influence on the mechanical properties of the finished part; inspection of additive manufactured parts and common production failures.

7.17	Manutention et stockage des aéronefs	**2**	Aircraft taxiing/towing and associated safety precautions; aircraft jacking, chocking, securing and associated safety precautions; aircraft storage methods; refuelling/defuelling procedures; de-icing/anti-icing procedures; electrical, hydraulic, and pneumatic ground supplies; effects of environmental conditions on aircraft handling and operation.
7.18(a)	Inspection — Types de défauts et inspection visuelle	**2**	Types of defects and visual inspection techniques; corrosion removal, assessment and reprotection.
7.18(d)	Techniques de démontage et de remontage	**2**	Disassembly and reassembly techniques.
7.19(a)	Événements anormaux — Impact foudre et pénétration HIRF	**2**	Inspections following lightning strikes and HIRF penetration.
7.20	Procédures de maintenance	**1**	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.
7.21	Documentation et communication	**1**	Documentation: elements and criteria for writing work reports, troubleshooting reports, and shift handover instructions. Communication: clear, comprehensive, and concise.
MODULE 8 — AÉRODYNAMIQUE DE BASE			
8.1	Physique de l'atmosphère — Atmosphère standard (ISA)	**1**	International Standard Atmosphere (ISA), and its application to aerodynamics.
8.2	Aérodynamique	**1**	Airflow around a body; boundary layer, laminar and turbulent flow, free stream flow, relative airflow, upwash and downwash, vortices, stagnation; the terms: camber, chord, mean aerodynamic chord, profile (parasite) drag, induced drag, centre of pressure, angle of attack, wash-in and wash-out, fineness ratio, wing shape and aspect ratio; thrust, weight, aerodynamic resultant; generation of lift and drag: angle of attack, lift coefficient, drag coefficient, polar curve, stall; aerofoil contamination including ice, snow, and frost.
8.3	Théorie du vol	**1**	Relationship between lift, weight, thrust and drag; glide ratio; steady-state flights, performance; theory of the turn; influence of load factor: stall, flight envelope, and structural limitations; lift augmentation.

8.4	Écoulement à grande vitesse	1	Speed of sound, subsonic flight, transonic flight, supersonic flight, Mach number, critical Mach number, compressibility buffet, shock wave, aerodynamic heating, area rule; factors that affect airflow in engine intakes of high-speed aircraft; effects of sweepback on critical Mach number.
8.5	Stabilité et dynamique du vol	1	Longitudinal, lateral, and directional stability (active and passive).
MODULE 9 — FACTEURS HUMAINS			
9.1	Généralités	2	The need to take human factors into account when performing maintenance; incidents attributable to human factors/human error; Murphy's law.
9.2	Performances et limitations humaines	2	Vision; hearing; information processing; attention and perception; memory; claustrophobia and physical access.
9.3	Psychologie sociale	1	Accountability and responsibility: individual and group; motivation and demotivation; peer pressure; cultural issues; teamwork; management, supervision, and leadership.
9.4	Facteurs influençant les performances	2	Fitness/health; stress: domestic and work related; time pressure and deadlines; workload: overload, underload, and workload management; sleep and fatigue, shift work; alcohol, medication, drug abuse; lack of manpower.
9.5	Environnement physique	1	Noise and fumes; illumination; climate and temperature; motion and vibration; working environment; situational awareness.
9.6	Tâches	1	Physical work; repetitive tasks, complacency; visual inspection; complex systems; critical maintenance tasks and error-capturing methods; technical documentation: access, use, and quality.
9.7	Communication	2	Within and between teams; work logging and recording; shift handover; keeping up to date, currency; dissemination of information.
9.8	Erreur humaine	2	Error models and theories; types of error in maintenance tasks; implications of errors (e.g. accidents); organisational errors; avoiding and managing errors.

9.9	Gestion de la sécurité	2	Risk management; occurrence reporting; safety culture; just culture; identifying, avoiding, and reporting hazards; organisational human-factors programme: professionalism and integrity, error-provoking behaviour, reporting errors, disciplinary policy, error investigation, action to address problems, feedback, assertiveness; dealing with emergencies.
9.10	La 'Sale Douzaine' (Dirty Dozen) et atténuation des risques	2	The 'Dirty Dozen': the twelve most common human-factors errors in maintenance: lack of communication, lack of teamwork, lack of assertiveness, complacency, fatigue, stress, lack of knowledge, lack of resources, lack of awareness, distraction, pressure, norms. Risk-mitigation methods.
MODULE 10 — LÉGISLATION AÉRONAUTIQUE			
10.1	Cadre réglementaire	1	Role of: ICAO; the European Commission (EC); EASA; the European Union Member States and national aviation authorities; the bilateral agreements concluded by the European Commission; Regulation (EU) 2018/1139 (the Basic Regulation) and its implementing acts: Regulations (EU) No 748/2012 (Initial Airworthiness) and (EU) No 1321/2014 (Continuing Airworthiness); the relationship between regulations (hard law) and AMC, GM and CSs (soft law); occurrence reporting according to Regulation (EU) No 376/2014; the relationship between the various annexes (parts) relating to Initial and Continuing Airworthiness (such as Part 21, Part-M, Part-145, Part-66, Part-147, Part-T, Part-ML, Part-CAMO, and Part-CAO) and Regulations (EU) No 965/2012 (Air Operations) and (EU) No 1178/2011 (Air Crew Regulation).
10.2	Personnel de certification — Maintenance	2	Deep understanding of Part-66 maintenance licences with the associated privileges and authorisations, and how to exercise them properly for the different aircraft categories.
10.3	Organismes d'entretien agréés (OEA / Part-145, Part-CAO)	2	General understanding of Part-145 and Part-CAO.
10.5	Opérations aériennes	1	General understanding of Regulation (EU) No 965/2012 (the Air Operations Regulation); differences between commercial and non-commercial air operations, and their influence on aircraft maintenance; Air Operator Certificates (AOCs) and self-declaration authorisations; air operator responsibilities regarding continuing airworthiness and maintenance; specialised operations / specific approvals: ETOPS, CAT I/II/III, and BRNAV; MEL and CDL; aircraft placarding and markings; documents to be carried on board: Certificate of Airworthiness, Airworthiness Review Certificate, Permit to Fly, Certificate of Registration, Noise Certificate, Weight and Balance report, Radio Station Licence.

10.6	Certification des aéronefs, pièces et équipements	**2**	Basic understanding of Part 21 and of the following EASA certification specifications: CS-22, CS-23, CS-25, CS-27, CS-29, and CS-STAN.
10.7	Maintien de la navigabilité	**2**	General understanding of the Part 21 requirements on continuing airworthiness; general understanding of Part-M, Part-ML and Part-CAMO; Aircraft Maintenance Programme.
10.8	Principes de surveillance du maintien de la navigabilité	**1**	Oversight principles in continuing airworthiness.
10.10	Cybersécurité en maintenance aéronautique	**1**	Regulation on the introduction of organisation requirements for the management of information security risks related to aeronautical information systems used in civil aviation.
MODULE 12 — AÉRODYNAMIQUE, STRUCTURES ET SYSTÈMES HÉLICOPTÈRES			
12.1	Théorie du vol — Aérodynamique de la voilure tournante	**1**	Terminology; effects of gyroscopic precession; torque reaction and directional control; dissymmetry of lift, blade tip stall; translating tendency and its correction; Coriolis effect and compensation; vortex ring state, power setting, overpitching; auto-rotation; ground effect.
12.2	Systèmes de commandes de vol (ATA 67)	**2**	Cyclic control; collective control; swashplate; yaw control: antitorque control, tail rotor, bleed air; main-rotor head: design and operation features; blade dampers: function and construction; rotor blades: main- and tail-rotor blade construction and attachment; trim control, fixed and adjustable stabilisers; system operation: manual, hydraulic, electrical, fly-by-wire; artificial feel; balancing and rigging.
12.3	Suivi de pales et analyse des vibrations (ATA 18)	**1**	Rotor alignment; main-rotor and tail-rotor tracking; static and dynamic balancing; vibration types, and vibration reduction methods; ground resonance.
12.4	Transmission	**1**	Gear boxes, main and tail rotors; clutches, free wheel units and rotor brake; tail-rotor drive shafts, flexible couplings, bearings, vibration dampers and bearing hangers.
12.5(a)	Structures de cellule — Concepts généraux	**2**	Airworthiness requirements for structural strength; structural classification: primary, secondary, tertiary; fail-safe, safe-life, damage-tolerance concepts; zonal and station identification systems; stress, strain, bending, compression, shear, torsion, tension, hoop stress, fatigue; drains and ventilation provisions; system installation provisions; lightning strike protection provisions.

12.5(b)	Structures de cellule — Méthodes de construction des éléments principaux	1	Stressed skin fuselage, formers, stringers, longerons, bulkheads, frames, doublers, struts, ties, beams, floor structures, reinforcement, skinning and anticorrosive protection; pylon, stabiliser and undercarriage attachments; seat installation; doors: construction, mechanisms, operation, and safety devices; windows and windscreen construction; fuel storage; firewalls; engine mounts; structure assembly techniques: riveting, bolting, bonding; methods for surface protection: chromating, anodising, painting; surface cleaning; airframe symmetry: methods for alignment and symmetry checks.
12.6.1	Conditionnement d'air (ATA 21) — Alimentation en air	1	Sources of air supply, including engine bleed and ground cart.
12.6.2	Conditionnement d'air (ATA 21) — Climatisation	1	Air-conditioning systems; distribution systems; flow and temperature control systems; protection and warning devices.
12.7.1	Instruments (ATA 31)	1	Pitot-static: altimeter, airspeed indicator, vertical speed indicator; gyroscopic: artificial horizon, attitude director, direction indicator, horizontal situation indicator, turn and slip indicator, turn coordinator; compasses: direct reading, remote reading; vibration indicating systems / health and usage monitoring systems (HUMSs); glass cockpit; indications of other aircraft systems.
12.7.2	Systèmes avioniques	1	Fundamentals of system layouts and operation of: autoflight (ATA 22); communications (ATA 23): VHF, HF, SATCOM, CPDLC, audio systems, ELTs, CVR; navigation systems (ATA 34): VOR, ADF, ILS, MLS, FDS/DME, RNAV, FMS, satellite navigation, INS, ATC transponder/SSR, TCAS, weather avoidance radar, radio altimeter, ARINC. Types and uses of general test equipment for avionics.
12.8	Alimentation électrique (ATA 24)	1	Installation and operation of batteries; DC power generation, AC power generation; emergency power generation; voltage regulation, circuit protection; power distribution; inverters, transformers, rectifiers; external/ground power.
12.9(a)	Équipements et aménagements (ATA 25) — Équipements de secours, harnais, systèmes de levage	2	Emergency equipment requirements; seats, harnesses, and belts; lifting systems.
12.9(b)	Équipements et aménagements (ATA 25) — Systèmes de flottaison, cabine, équipements	1	Emergency flotation systems; cabin layout, cargo retention; equipment layout; cabin furnishing installation.
12.10(a)	Protection incendie (ATA 26) — Détection et extinction	1	Fire and smoke detection and warning systems; fire-extinguishing systems; system tests.

12.10(b)	Protection incendie (ATA 26) — Extincteurs portatifs	1	Portable fire extinguishers.
12.11	Systèmes carburant (ATA 28)	1	System layout; fuel tanks; supply systems; dumping, venting, and draining; cross-feed and transfer; indications and warnings; refuelling and defuelling.
12.12	Système hydraulique (ATA 29)	1	System layout; hydraulic fluids; hydraulic reservoirs and accumulators; pressure generation: electric, mechanical, pneumatic; emergency pressure generation; filters; pressure control; power distribution; indication and warning systems; interface with other systems; servicing.
12.13	Protection givrage et pluie (ATA 30)	1	Ice formation, classification, and detection; anti-icing and de-icing systems: electrical, hot-air, and chemical; rain repellent and removal; probe and drain heating; wiper system.
12.14(a)	Train d'atterrissage (ATA 32) — Description et fonctionnement	2	Construction, shock absorbing; extension and retraction systems: normal and emergency; wheels, tyres, brakes; steering; skids, floats.
12.14(b)	Train d'atterrissage (ATA 32) — Capteurs	2	Indications and warning; air-ground sensing.
12.15	Éclairage (ATA 33)	2	External: navigation, landing, taxiing; internal: cabin, cockpit, cargo; emergency.
MODULE 15 — MOTEUR À TURBINE À GAZ			
15.1	Principes fondamentaux	2	Potential energy, kinetic energy, Newton's laws of motion, Brayton cycle; the relationship between force, work, power, energy, velocity, and acceleration; constructional arrangement and operation of turbojet, turbofan, turboshaft, turboprop, and geared turbofan engines.
15.2	Performances moteur	2	Gross thrust, net thrust, choked nozzle thrust, thrust distribution, resultant thrust, thrust horsepower, equivalent shaft horsepower, specific fuel consumption; engine efficiencies; by-pass ratio and engine pressure ratio; pressure, temperature, and velocity of the gas flow; engine ratings, static thrust, influence of speed, altitude and hot climate, flat rating, limitations.
15.3	Entrée d'air (inlet)	2	Compressor inlet ducts; effects of various inlet configurations; ice protection.

15.4	Compresseurs	**2**	Axial and centrifugal types; constructional features, operating principles, and applications; fan balancing; operation: causes and effects of compressor stall and surge; methods of air-flow control: bleed valves, variable inlet guide vanes, variable stator vanes, rotating stator blades; compressor ratio.
15.5	Chambre de combustion	**2**	Constructional features and principles of operation.
15.6	Section turbine	**2**	Operation and characteristics of different turbine blade types; blade-to-disk attachment; nozzle guide vanes; causes and effects of turbine blade stress and creep.
15.7	Tuyère d'échappement	**2**	Constructional features and principles of operation; convergent, divergent, and variable area nozzles; engine noise reduction; thrust reversers.
15.8	Roulements et joints d'étanchéité	**2**	Constructional features and principles of operation.
15.9	Lubrifiants et carburants	**2**	Properties and specifications of standard, alternate, and drop-in fuel; properties and specifications of lubricants; fuel additives; safety precautions.
15.10	Système de lubrification	**2**	System operation/layout and components.
15.11	Système carburant moteur	**2**	Operation of engine control and fuel-metering systems, including electronic engine control (FADEC) and electronic power augmentation; system layout and components.
15.12	Système d'air moteur	**2**	Operation of engine air distribution and anti-icing control systems, including internal cooling and sealing, and external air services.
15.13	Systèmes de démarrage et d'allumage	**2**	Operation of engine start systems and components; ignition systems and components; maintenance safety requirements.
15.14	Systèmes d'indication moteur	**2**	Exhaust gas temperature / interstage turbine temperature; engine thrust indication: engine pressure ratio, engine turbine discharge pressure or jet pipe pressure systems; oil pressure and temperature; fuel pressure and flow; engine speed; vibration measurement and indication; torque; power.

15.15	Constructions alternatives de turbines	**1**	Geared turbofan (GTF); variable fan blades; open rotor/propfan; hybrid turbine-electric concepts and electric power augmentation; future trends and developments.
15.16	Moteurs turbopropulseurs	**2**	Gas-coupled/free-turbine and gear-coupled turbines; reduction gears; integrated engine and propeller controls; overspeed safety devices.
15.17	Moteurs turbomoteurs (turboshaft)	**2**	Arrangements, drive systems, reduction gearing, couplings, control systems.
15.18	Groupes auxiliaires de puissance (GAP / APU)	**2**	Purpose, operation, protective systems.
15.19	Installation de la tranche moteur (powerplant)	**2**	Configuration of firewalls, cowlings, acoustic panels, engine mounts, antivibration mounts, hoses, pipes, feeders, connectors, wiring looms, control cables and rods, lifting points and drains.
15.20	Systèmes de protection incendie moteur	**2**	Operation of fire-detection and fire-extinguishing systems.
15.21	Surveillance moteur et opérations au sol	**3**	Procedures for starting and ground run-up; interpretation of engine power output and parameters; trend (including oil analysis, vibration and borescope) monitoring; inspection of engine and components to criteria, tolerances and data specified by the engine manufacturer; compressor washing/cleaning; foreign object damage (FOD).
15.22	Stockage et conservation moteur	**2**	Preservation and depreservation for the engine and its accessories/systems.