

(iv) *Aircraft & Engines*.—including elementary knowledge of aerodynamics and theory of flight; general principles and elementary knowledge of design, construction, maintenance and operation of aircraft, engine and instrument; ancillary system (*e.g.* fuel, hydraulic, electrical, etc.) and emergency systems, installations and equipment; basic knowledge of fuel and lubricants; loading of aircraft and weight distribution and its effect on flight characteristics; operating limitation and handling, care and pre-flight inspection. The examination shall also include questions pertaining to the class and the type of aeroplane for which an aircraft rating is desired if the all-up-weight of the aeroplane is in excess of 5,700 kgs.

(v) *Signals (Practical)*.—transmission and interpretation of aural and visual signals.

(iv) *Seamanship*.—Important abbreviations used in Admiralty charts, Regulations for preventing collisions at sea; lights to be carried by ships and seaplanes; Uniform system of Buoyage; A general knowledge of Tides; Meaning of High Water (HW), Low Water (LW), Mean High Water Springs (MHWS), Mean High Water Neaps (MHWN) and chart Datum applicable to aircraft rating to include amphibians and seaplanes.

NOTE.—The oral examination shall be conducted by a board constituted and approved by the Director General.

(c) *Experience*.—He shall produce evidence of having satisfactorily completed within a period of 5 years immediately preceding the date of the application for this rating:

(i) not less than 500 hours of flight time as Pilot-in-Command of an aeroplane including not less than (a) 20 hours by night during which at least 20 take-offs and 20 landings have been carried out. (b) 100 hours of flight time satisfactorily completed in the capacity of an Assistant Flight Instructor;

(ii) an approved Flight Instructor's Course.

(d) *Other Requirements*.—He shall be—

(i) the holder of current professional pilot's licence;

(ii) the holder of a current Instrument Rating.

(e) *Skill*.—He shall have demonstrated his competency as a Flight Instructor to the satisfaction of an Approved Examiner by undergoing satisfactorily the following flying tests, by day and by night, within a period of 6 months immediately preceding the date of the application for this rating. The aircraft used for the test shall be fitted with dual controls:

(i) *General Flying Test by Day*.—shall include preflight briefing; preflight inspection and ground handling of aeroplane; take-offs, climb and general flying; manoeuvres at slow speed, steep turns; descent and glide; stalling, spinning and recovery; landings; emergency manoeuvres including simulated engine failure on take-offs and debriefing:

*For Multi-engine Aeroplanes*.—The test shall also include at maximum landing weight all manoeuvres used in normal flight with symmetric and asymmetric power: approach, landings and overshoot with one or more engines inoperative.