

training flights or non-passenger carrying flights during which he shall have carried out not less than 10 take-offs and 10 landings and he has been certified fit by an Examiner to operate as a Student Flight Engineer on the type of transport aircraft carrying passengers. Out of the 10 hours stipulated as training experience, not more than 5 hours shall be on an approved synthetic device. Landings carried out on synthetic device shall not count towards the 10 landings referred to above.

SECTION Q. FLIGHT ENGINEER'S LICENCE

1. Requirements for Issue of licence.—An applicant for a Flight Engineer's licence shall satisfy the following requirements:

(a) *Age.*—He shall be not less than 21 years of age on the date of application:

(b) *Medical Fitness.*—He shall produce on a prescribed proforma a certificate of physical fitness from an approved Medical Board after undergoing a medical examination during which he shall have established his medical fitness, on the basis of compliance with the requirements as notified by the Director General under Rule 39-B:

(c) *Knowledge.*—He shall pass a written examination in the following subjects:

(i) *Regulations and Procedure.*—Including rules, regulations and procedure in so far as the duties of flight engineers are concerned:

(ii) *Aircraft and Engines.*—Various terms and definitions used in the operation of aircraft, general knowledge of aircraft operation, detailed knowledge of manuals of the type of aircraft to which the application relates: methods of effecting in flight minor repairs, replacements and adjustments: aircraft performances with respect to speed limitations and the procedure to be followed in case of emergency particularly in the event of fire in air or power plant failure: flight planning based on loading and performance charts, fuel consumption and engine power curves, control of power output and mathematical computations involved: General knowledge of varying meteorological conditions and their effect on power-plant operation and aircraft loading and C.G. computations:

(d) *Experience.*—An applicant shall produce evidence of having completed within a period of 12 months immediately preceding the date of the application for licence 50 hours' of flying experience. Out of this flying experience not more than 10 hours shall have been obtained on an approved synthetic flight trainer:

(e) *Skill.*—He shall have demonstrated his competency as a Flight Engineer to the satisfaction of an Examiner by undergoing the following tests on the type of aircraft to which the application for licence relates within a period not exceeding 6 months immediately preceding the date of such application:

The flight tests shall include handling care and pre-flight inspection: practical knowledge of emergency procedures and the ability to take appropriate action in the event of engine failure occurring particularly on take-offs and landings.