

বাংলাদেশ



গেজেট

অতিরিক্ত সংখ্যা
কর্তৃপক্ষ কর্তৃক প্রকাশিত

বুধবার, মার্চ ৫, ২০০৩

গণপ্রজাতন্ত্রী বাংলাদেশ সরকার
বেসামরিক বিমান পরিবহন ও পর্যটন মন্ত্রণালয়
প্রজ্ঞাপন

তারিখ, ২০ ফাল্গুন ১৪০৯বাং/০৪ মার্চ ২০০৩ইং।

এস, আর, ও নং ৬১-আইন/২০০৩—Civil Aviation Ordinance, 1960 (XXXII of 1960) এর section 5 এর sub-section (1) এ প্রদত্ত ক্ষমতাবলে সরকার Civil Aviation Rules, 1984 এর নিম্নরূপ অধিকতর সংশোধন করিল, যথাঃ—

উপরিউক্ত Rules এর—

(১) rule 21 এর—

(ক) sub-rule (2) এর পরিবর্তে নিম্নরূপ sub-rule (2) প্রতিস্থাপিত হইবে, যথাঃ—

“(2) Subject to this rule, no member of the operating crew of an aircraft registered in Bangladesh shall fly, or attempt to fly the aircraft unless he holds a licence granted or rendered valid under these Rules :

Provided that, in case when a licence issued by another contracting state is rendered valid, the validity of the authorisation shall not extend beyond the period of validity of the licence.”;

(খ) sub-rule (10) এর পর নিম্নরূপ sub-rules (11) ও (12) সংযোজিত হইবে, যথাঃ—

“(11) Holders of licences under Part 1 of these Rules shall not exercise privileges of their licences and related

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ratings or authorisations at any time when they are aware of any decrease in their medical fitness which might render them unable to safely and properly exercise those privileges.

- (12) Holders of licences under Part 1 of these Rules shall not exercise privileges of their licences and related ratings or authorisations while under the influence of any psychoactive substance, and shall not take any prescription or non-prescription medication or drug or undergo any other treatment unless they are completely sure that the medication, drug or treatment will not have any adverse effect on their ability to safely and properly exercise those privileges or shall not engage in any problematic use of substances, and in case of any doubt, advice shall be sought from CAAB designated medical examiners.”;

(২) rule 21 এর পর নিম্নরূপ নতুন rule 21A সন্নিবেশিত হইবে, যথা :-

“21A. Category of aircraft, Class and Type of Ratings and Validity of Licence.—(1) The category of aircraft, class and type of ratings as appropriate shall be endorsed on the licence.

(2) A licence issued or renewed under this Part shall remain valid from the date of its issue or renewal for a period specified by the Chairman through Air Navigation Orders.

(3) Privileges granted by a licence or by related ratings shall not be exercised unless the holder maintains competency and meets the requirements for recent experience and periodical medical assessments as specified by the Chairman through Air Navigation orders in accordance with rule 51(3).

(4) The holder of a licence granted under this Part shall comply with all the conditions attached to the licence and shall conduct his operations accordingly.”;

(৩) rule 22 এর পরিবর্তে নিম্নরূপ rule 22 প্রতিস্থাপিত হইবে, যথা :-

“22. Student-Pilot’s Licence for Aeroplanes, Helicopters, Gliders or Balloons.—(1) Requirements for the

issue of the Licence—An applicant for a Student Pilot's Licence shall satisfy the following requirements:—

- (a) **Age :** He shall be not less than 16 years of age on the date of application;
 - (b) **Academic qualification and knowledge :** He shall have passed at least Secondary School Certificate Examination in Science group or its equivalent and shall show required aptitude for a pilot; and
 - (c) **Medical fitness :** The applicant shall hold medical fitness on the basis of compliance with the requirements as laid down in rules 51 and 53.
- (2) **Validity of the Licence :** (a) The period of validity of the licence shall commence from the date of issue or renewal of the Licence.
- (b) The licence shall be valid for a period not exceeding 12 months from the date of passing the medical examination and it shall lapse on the holder obtaining a pilot licence of a higher order for the same category of aircraft.
- (3) **Renewal of the Licence :** The licence may be renewed for a period not exceeding 12 months from the date of a fresh medical examination.
- (4) **Aircraft rating :** The licence shall indicate the class and type of aeroplanes or helicopters or gliders or balloons the holder is entitled to fly.
- (5) **Privileges :** Subject to the validity of endorsements and ratings in the licence, the holders of a licence is entitled to fly within the territory of Bangladesh only as Pilot-in-command of any aeroplane, helicopter or glider or balloon entered in the aircraft rating of his licence:

Provided that the holder of a Student-Pilot's Licence:

- (a) shall fly at all times under the authority and supervision of a flight instructor or an approved examiner;
- (b) shall fly under visual flight rules only;

- (c) shall not carry passengers, animals and cargo or fly for hire, reward or remuneration of any kind;
- (d) shall not undertake cross-country flights unless he has a minimum of 10 hours of solo flight time; and
- (e) shall not fly solo unless he meets the medical requirements under rules 51 and 53.

Explanation : For this rule “cross-country flight” means a flight to a point beyond a radius of 28 Km (15 miles) from the aerodrome of departure.”;

(৪) rule 23 এর পরিবর্তে নিম্নরূপ rule 23 প্রতিস্থাপিত হইবে, যথা :—

“23. Private Pilot Licence for Aeroplane.—(1) Requirements for the issue of the Licence.—An applicant for a Private Pilot Licence shall satisfy the following requirements:—

- (a) **Age :** the applicant shall be not less than 17 years of age on the date of application;
- (b) **Academic qualification and knowledge :** the applicant shall have passed at least Secondary School Certificate Examination or its equivalent and shall pass a written examination in the following subjects:—

Air Law

- (i) rules and regulations relevant to the holder of a Private Pilot Licence for Aeroplane; rules of the air; appropriate air traffic services practices and procedures,

Aircraft general knowledge

- (ii) principles of operation of aeroplane powerplants, systems and instruments,
- (iii) operating limitations of aeroplanes and powerplants; relevant operational information from the flight manual or other appropriate document,

Flight performance and planning

- (iv) effects of loading and mass distribution on flight characteristics; mass and balance calculations,
- (v) use and practical application of take-off, landing and other performance data,
- (vi) pre-flight and en-route flight planning appropriate to private operations under VFR; preparation and filing of air traffic services flight plans; appropriate air traffic services procedures; position reporting procedures; altimeter setting procedures; operations in areas of high-density traffic,

Human performance and limitations

- (vii) human performance and limitations relevant to the private pilot- aeroplane,

Meteorology

- (viii) application of elementary aeronautical meteorology; use of, and procedures for obtaining, meteorological information; altimetry,

Navigation

- (ix) practical aspects of air navigation and dead-reckoning techniques; use of aeronautical charts,

Operational procedures—

- (x) use of aeronautical documentation such as AIP, NOTAM, aeronautical codes and abbreviations,
- (xi) appropriate precautionary and emergency procedures, including action to be taken to avoid hazardous weather, wake turbulence and other operating hazards,

Principles of flight

- (xii) principles of flight relating to aeroplanes,

Radiotelephony—

- (xiii) radiotelephony procedures and phraseology as applied to VFR operations; action to be taken in case of communication failure,

Seamanship

(xiv) if, the licence is to include a seaplane or amphibian type of flying machine;

(c) **Experience** : (i) the applicant shall have completed not less than 40 hours of flight time as a pilot of aeroplanes; Experience as a pilot under instruction in a synthetic flight trainer, approved by Chairman, is acceptable as part of the total flight time of 40 hours and credit for the experience shall be limited to a maximum of 5 hours,

(ii) The flight time shall include—

(A) not less than 10 hours of solo flight time under the supervision of an authorized flight instructor, including 5 hours of solo cross-country flight time with at least one cross-country flight totalling not less than 270 km (150NM) in the course of which full-stop landing at two different aerodromes shall be made,

(B) not less than 10 hours of solo flight time completed within a period of 12 months immediately preceding the date of application for the licence and must include the cross-country flight time;

(d) **Flight Instruction** : the applicant shall have received dual instruction in aeroplanes from an authorised flight instructor and the instructor shall ensure that the applicant has operational experience in at least the following areas to the level of performance required for the private pilot:—

(i) pre-flight operations, including mass and balance determination, aeroplane inspection and servicing,

(ii) aerodrome and traffic pattern operations, collision avoidance precautions and procedures,

(iii) control of the aeroplane by external visual reference,

(iv) flights at critically slow airspeeds, recognition of, and recovery from, incipient and full stalls,

- (v) flight at critically high airspeeds, recognition of, and recovery from, spiral dives,
- (vi) normal and cross-wind take-offs and landings,
- (vii) maximum performance (short field and obstacle clearance) take-offs, short-field landings,
- (viii) flight by reference solely to instruments, including the completion of a level 180° turn,
- (ix) cross-country flying using visual references, dead reckoning and, where available, radio navigation aids,
- (x) emergency operations, including simulated aeroplane equipment malfunctions, and
- (xi) operations to, from and transiting controlled aerodromes, compliance with air traffic services procedures, radiotelephony procedures and phraseology;

(e) **Skill** : the applicant shall have demonstrated the ability to perform as Pilot-in-command of an aeroplane, the procedures and manoeuvres described in sub-rule (1) (d) with a degree of competency appropriate to the privileges granted to the holder of a Private Pilot Licence for aeroplane, and to:—

- (i) operate the aeroplane within its limitations,
- (ii) complete all manoeuvres with smoothness and accuracy,
- (iii) exercise good judgement and airmanship,
- (iv) apply aeronautical knowledge, and
- (v) maintain control of the aeroplane at all times in a manner that the successful outcome of a procedure or manoeuvres is never seriously in doubt; and

(f) **Medical Fitness** : the applicant shall hold medical fitness on the basis of compliance with the requirements as laid down in rules 51 and 53.

(2) **Privileges**—Subject to the validity of endorsements and ratings in the licence, the privileges of the holder of a Private Pilot Licence for aeroplane shall be to act, but not for remuneration, as Pilot-in-command or co-pilot of any aeroplane engaged in non-revenue flights, and if the privileges of the licence are to be exercised at night, the applicant shall have received dual instruction in aeroplanes in night flying including take-offs, landings and navigation.”;

(৫) rule 24 এর পরিবর্তে নিম্নরূপ rule 24 প্রতিস্থাপিত হইবে, যথা :—

“24. **Commercial Pilot Licence for Aeroplane.—(1) Requirements for the issue of the Licence**—An applicant for a Commercial Pilot Licence shall satisfy the following requirements :—

- (a) **Age:** the applicant shall be not less than 18 years of age on the date of application;
- (b) **Academic qualification and knowledge:** the applicant shall have passed at least Higher Secondary Certificate (Science) Examination with Physics and Mathematics or its equivalent and pass a written examination in the following subjects:—

Air law-

- (i) rules and regulations relevant to the holder of a Commercial Pilot Licence for aeroplane, rules of the air; appropriate air traffic services practices and procedures,

Aircraft general knowledge

- (ii) principles of operation and functioning of aeroplane powerplants, systems and instruments,
- (iii) operating limitations of appropriate aeroplanes and powerplants; relevant operational information from the flight manual or other appropriate document,
- (iv) use and serviceability checks of equipment and systems of appropriate aeroplanes,
- (v) maintenance procedures for airframes, systems and powerplants of appropriate aeroplanes,

Flight performance and planning—

- (vi) effects of loading and mass distribution on aeroplane handling, flight characteristics and performance, mass and balance calculations,
- (vii) use and practical application of take-off, landing and other performance data,
- (viii) pre-flight, and en-route flight planning appropriate to operations under VFR, preparation and filing of air traffic services flight plans, appropriate air traffic services procedures, altimeter setting procedures,

Human performance and limitations—

- (ix) human performance and limitations relevant to the commercial pilot-aeroplane,

Meteorology—

- (x) interpretation and application of aeronautical meteorological reports, charts and forecasts, use of, and procedures for obtaining, meteorological information, pre-flight and in-flight, altimetry,
- (xi) aeronautical meteorology; climatologic of relevant areas in respect of the elements having an effect upon aviation, the movement of pressure systems, the structure of fronts, and the origin and characteristics of significant weather phenomena which affect take-off, en-route and landing conditions, hazardous weather avoidance,

Navigation—

- (xii) Air navigation, including the use of aeronautical charts, instruments and navigation aids, an understanding of the principles and characteristics of appropriate navigation systems, operation of airborne equipment,

Operational procedures—

- (xiii) use of aeronautical documentation such as AIP, NOTAM, aeronautical codes and abbreviations,

- (xiv) appropriate precautionary and emergency procedures,
- (xv) operational procedures for carriage of freight, potential hazards associated with dangerous goods,
- (xvi) requirements and practices for safety briefing to passengers, including precautions to be observed when embarking and disembarking from aeroplanes,

Principles of flight—

- (xvii) principles of flight relating to aeroplanes,

Radiotelephony—

- (xviii) radiotelephony procedures and phraseology as applied to VFR operations, action to be taken in case of communication failure,

Seamanship—

- (xix) if the licence is to include a seaplane or amphibian type of flying machine;
- (c) **Experience:** (i) the applicant shall have completed not less than 200 hours of flight time, or 150 hours if completed during a course of approved training, as a pilot of aeroplanes; experience as a pilot under instruction in a synthetic flight trainer, approved by the Chairman, is acceptable as part of the total flight time of 200 hours or 150 hours, as the case may be and credit for the experience shall be limited to a maximum of 10 hours,
- (ii) The flight time shall include:—
- (A) not less than 100 hours as Pilot-in command or, in the case of a course of approved training, 70 hours as Pilot-in-command.
 - (B) not less than 20 hours of cross-country flight time as Pilot-in-command including a cross-country flight totalling not less than 540 km (300 NM) in the course of which full-stop landings at two different aerodromes shall be made,

(C) not less than 10 hours of instrument instruction time of which not more than 5 hours may be instrument ground time, and

(D) if the privileges of the licence are to be exercised at night, not less than 5 hours of night flight time including 5 take-offs and 5 landings as Pilot-in command ;

(d) **Flight Instruction** : when the applicant shall have received dual instruction in aeroplanes from an authorized flight instructor and the instructor shall ensure that the applicant has operational experience in at least the following areas to the level of performance required for the commercial pilot :—

- (i) pre-flight operations, including mass and balance determination, aeroplane inspection and servicing,
- (ii) aerodrome and traffic pattern operations, collision avoidance precautions and procedures,
- (iii) control of the aeroplane by external visual reference,
- (iv) flight at critically slow airspeeds, spin avoidance, recognition of, and recovery from, incipient and full stalls,
- (v) flight at critically high airspeeds, recognition of, and recovery from, spiral dives,
- (vi) Normal and cross-wind take-offs and landings,
- (vii) maximum performance (short field and obstacle clearance) take-offs; short-field landings,
- (viii) basic flight manoeuvres and recovery from unusual attitudes by reference solely to basic flight instruments,
- (ix) cross-country flying using visual reference, dead reckoning and radio navigation aids; diversion procedures,
- (x) abnormal and emergency procedures and manoeuvres,

- (xi) operations to, from and transiting controlled aerodromes, compliance with air traffic services procedures, radiotelephony procedures and phraseology, and
- (xii) if the privileges of the licence are to be exercised at night, the applicant shall have received dual instruction in aeroplanes in night flying, including take-offs, landings and navigation;
- (e) **Skill** : the applicant shall have demonstrated the ability to perform as Pilot-in-command of an aeroplane, the procedures and manoeuvres described in sub-rule (1) (d) with a degree of competency appropriate to the privileges granted to the holder of a Commercial Pilot Licence for aeroplane, and to :—
- (i) operate the aeroplanes within its limitations,
 - (ii) complete all manoeuvres with smoothness and accuracy,
 - (iii) exercise good judgment and airmanship,
 - (iv) apply aeronautical knowledge,
 - (v) maintain control of the aeroplane at all times in a manner such that the successful outcome of a procedure or manoeuvre is never seriously in doubt;
- (f) **Medical Fitness** : the applicant shall hold medical fitness on the basis of compliance with the requirements as laid down in rules 51 and 52.
- (2) **Privileges**—Subject to the validity of endorsement and ratings in the licence, the privileges of the holder of a Commercial Pilot Licence for aeroplane shall be:-
- (i) to exercise all the privileges of the holder of a Private Pilot Licence for aeroplane,
 - (ii) to act as Pilot-in-command in any aeroplane engaged in operations other than commercial air transportation,

- (iii) to act as Pilot-in-command in commercial air transportation in any aeroplane certificated for single-pilot operation, and
- (iv) to act as co-pilot in commercial air transportation in aeroplanes required to be operated with a co-pilot:

Provided that for all flights under Instrument Flight Rules either as Pilot-in-Command or as co-pilot, the applicant shall be required to have a current instrument rating.”;

(৬) **rule 25** অবলুপ্ত হইবে ;

(৭) **rule 26** এর পরিবর্তে নিম্নরূপ **rule 26** প্রতিস্থাপিত হইবে, যথা :—

“26. **Airline Transport Pilot Licence for Aeroplane.—(1) Requirements for the issue of the Licence—**An applicant for a Airline Transport Pilot Licence shall satisfy the following requirements:—

- (a) **Age:** the applicant shall be not less than 21 years of age on the date of application;
- (b) **Academic qualification and knowledge :** the applicant shall have passed at least Higher Secondary Certificate (Science) Examination with Physics and Mathematics or its equivalent and pass a written examination in the following subjects:—

Air law—

- (i) rules and regulations relevant to the holder of an Airline Transport Pilot Licence for aeroplane, rules of the air, appropriate air traffic services practices and procedures,

Aircraft general knowledge—

- (ii) general characteristics and limitations of electrical, hydraulic, pressurization and other aeroplane systems, flight control systems, including autopilot and stability augmentation,
- (iii) principles of operation, handling procedures and operating limitations of aeroplane powerplants, effects of atmospheric conditions on engine

performance, relevant operational information from the flight manual or other appropriate document,

- (iv) operating procedures and limitations of appropriate aeroplanes, effects of atmospheric conditions on aeroplane performance,
- (v) use and serviceability checks of equipment and systems of appropriate aeroplanes,
- (vi) flight instruments, compasses, turning and acceleration errors, gyroscopic instruments, operational limits and precession effects, practices and procedures in the event of malfunctions of various flight instruments,
- (vii) maintenance procedures for airframes, systems and powerplants of appropriate aeroplanes,

Flight performance and planning—

- (viii) effects of loading and mass distribution on aeroplane handling, flight characteristics and performance, mass and balance calculations,
- (ix) use and practical application of take-off, landing and other performance data, including procedures for cruise control,
- (x) pre-flight and en-route operational flight planning, preparation and filing of air traffic services flight plans, appropriate air traffic services procedures, altimeter setting procedures,

Human performance and limitations—

- (xi) human performance and limitations relevant to the airline transport pilot-aeroplane,

Meteorology—

- (xii) interpretation and application of aeronautical meteorological reports, charts and forecasts, codes and abbreviations; use of, and procedures for obtaining, meteorological information, pre-flight and in-flight, altimetry,

- (xiii) aeronautical meteorology; climatology of relevant areas in respect of the elements having an effect upon aviation, the movement of pressure systems, the structure of fronts, and the origin and characteristics of significant weather phenomena which affect take-off, en-route and landing conditions,
- (xiv) causes, recognition and effects of engine and airframe icing, frontal zone penetration procedures; hazardous weather avoidance,
- (xv) practical high altitude meteorology, including interpretation and use of weather reports, charts and forecasts, jet streams,

Navigation—

- (xvi) air navigation, including the use of aeronautical charts, radio navigation aids and area navigation systems, specific navigation requirements for long-range flights,
- (xvii) use, limitation and serviceability of avionics and instruments necessary for the control and navigation of aeroplanes,
- (xviii) use, accuracy and reliability of navigation systems used in departure, en-route, approach and landing phases of flight, identification of radio navigation aids,
- (xix) principles and characteristics of self-contained and external-referenced navigation systems, operation of airborne equipment,

Operational procedure—

- (xx) interpretation and use of aeronautical documentation such as AIP, NOTAM, aeronautical codes and abbreviations, and instrument procedure charts for departure, en-route, descent and approach,
- (xxi) precautionary and emergency procedures, safety practices associated with flight under IFR,

- (xxii) operational procedures for carriage of freight and dangerous goods,
- (xxiii) requirements and practices for safety briefing to passengers, including precautions to be observed when embarking and disembarking from aeroplanes,

Principles of flight—

- (xxiv) principles of flight relating to aeroplanes, sub-sonic aerodynamics, compressibility effects, manoeuvre boundary limits, wing design characteristics, effects of supplementary lift and drag devices, relationships between lift, drag and thrust at various airspeeds and in different flight configurations,

Radiotelephony—

- (xxv) radiotelephony procedures and phraseology, action to be taken in case of communication failure ;

- (c) **Experience :** (i) the applicant shall have competed not less than 1500 hours of flight time as a pilot of aeroplanes. Experience as a pilot under instruction in a synthetic flight trainer, approved by the Chairman, is acceptable as part of the total flight time of 1500 hours and credit for the experience shall be limited to a maximum of 100 hours of which not more than 25 hours shall have been acquired in a flight procedure trainer or a basic instrument flight trainer.

(ii) The flight time shall include—

- (A) not less than 250 hours, either as Pilot-in-command, or made up by not less than 100 hours as Pilot-in-command and the necessary additional flight time as co-pilot performing, under the supervision of the Pilot-in-command, performing the duties and functions of a Pilot-in-command, provided that the method of supervision employed is acceptable to the Chairman.

- (B) 200 hours of cross-country flight time of which not less than 100 hours shall be as Pilot-in-command or as co-pilot performing under the supervision of the Pilot-in-command, provided that the method of supervision employed is acceptable to the Chairman,
- (C) 75 hours of instrument time, of which not more than 30 hours may be instrument ground time, and
- (D) 100 hours of night flight as Pilot-in-command or as co-pilot ;

(d) **Flight instruction:** the applicant shall have received the dual flight instruction required for the issue of the Commercial Pilot Licence for aeroplane as described in rule 24 (1) (d) and for the issue of the instrument rating-aeroplane as described in rule 32 (1) (c) ;

(e) **Skill:** the applicant shall have demonstrated the ability to perform as Pilot-in command of a multi-engined aeroplane required to be operated with a co-pilot, the following procedures and manoeuvres :—

- (i) pre-flight procedures including the preparation of the operational flight plan and filing of the air traffic services flight plan,
- (ii) normal flight procedures and manoeuvres during all phases of flight,
- (iii) procedures and manoeuvres for IFR operations under normal, abnormal and emergency conditions including simulated engine failure, and covering at least the following:—
 - (A) transition to instrument flight on take-off,
 - (B) standard instrument departures and arrivals,
 - (C) en-route IFR procedures and navigation,
 - (D) holding procedures,
 - (E) instrument approaches to specified minima,
 - (F) missed approach procedures, and
 - (G) landings from instrument approaches,

- (iv) normal and emergency procedures and manoeuvres related to failures and malfunctions of equipment, such as power plant, systems and airframe, and
- (v) procedures for crew incapacitation and crew co-ordination including allocation of pilot tasks, crew co-operation and use of checklists:

Provided that the applicant shall have demonstrated the ability to perform the procedures and manoeuvres described in sub-rule (1) (e) (ii) with a degree of competency appropriate to the privileges granted to the holder of an Airline Transport Pilot Licence for aeroplane and to—

- (A) operate the aeroplane within its limitations,
- (B) complete all manoeuvres with smoothness and accuracy,
- (C) exercise good judgment and airmanship,
- (D) apply aeronautical knowledge,
- (E) maintain control of the aeroplane at all times in a manner such that the successful outcome of a procedure or manoeuvre is never in doubt,
- (F) understand and apply crew co-ordination and incapacitation procedures, and
- (G) communicate effectively with the other flight crew members,

(f) **Medical Fitness:** the applicant shall hold medical fitness on the basis of compliance with the requirements as laid down in rules 51 and 52.

(2) **Privileges—** Subject to the validity of endorsements and ratings in the licence, the privileges of the holder of an Airline Transport Pilot's Licence for Aeroplane shall be:—

- (i) to exercise all the privileges of the holder of a Private and Commercial Pilot Licence for aeroplane and of an instrument rating-aeroplane, and
- (ii) to act as Pilot-in-command and co-pilot in aeroplanes in air transportation.”;

(৮) rule 27 এর পরিবর্তে নিম্নরূপ rule 27 প্রতিস্থাপিত হইবে, যথাঃ—

“27. Glider Pilot Licence.— (1) Requirement for the issue of the Licence— An applicant for a Glider Pilot Licence shall satisfy the following requirements:—

- (a) **Age:** the applicant shall be not less than 16 years of age on the date of application;
- (b) **Knowledge:** the applicant shall have demonstrated a level of knowledge appropriate to the privileges granted to the holder of a Glider Pilot Licence in at least the following subjects:—

Air law—

- (i) rules and regulations relevant to the holder of a Glider Pilot Licence, rules of the air, appropriate air traffic services practices and procedures,

Aircraft general knowledge—

- (ii) principles of operation of glider systems and instruments,
- (iii) operating limitations of gliders; relevant operational information from the flight manual or other appropriate document.

Flight performance and planning—

- (iv) effects of loading and mass distribution on flight characteristics, mass and balance considerations,
- (v) use and practical application of launching, landing and other performance data,
- (vi) pre-flight and en-route flight planning appropriate to operations under VFR, appropriate air traffic services procedures, altimeter setting procedures; operations in areas of high-density traffic,

Human performance and limitations—

- (vii) human performance and limitations relevant to the glider pilot,

Meteorology—

- (viii) application of elementary aeronautical meteorology, use of, and procedures for obtaining, meteorological information, altimetry,

Navigation—

- (ix) practical aspects of air navigation and dead-reckoning techniques; use of aeronautical charts,

Operational procedures—

- (x) use of aeronautical documentation such as AIP, NOTAM, aeronautical codes and abbreviations,
- (xi) different launch methods and associated procedures,
- (xii) appropriate precautionary and emergency procedures, including action to be taken to avoid hazardous weather and wake turbulence and other operating hazards,

Principles of flight—

- (xiii) principles of flight relating to gliders,

Radiotelephony—

- (xiv) knowledge in radiotelephony procedures and phraseology as appropriate to VFR operations and on action to be taken in case of communication failure;

- (c) **Experience:** (i) the applicant shall have completed not less than six hours of flight time as a pilot of gliders including two hours' solo flight time during which not less than 20 launches and landings have been performed, (ii) the applicant shall have gained, under appropriate supervision, operational experience in gliders in at least the following areas:—

- (A) pre-flight operations including glider assembly and inspection,

- (B) techniques and procedures for the launching method used, including appropriate airspeed limitations, emergency procedures and signals used,
 - (C) traffic pattern operations, collision avoidance precautions and procedures,
 - (D) control of the glider by external visual reference,
 - (E) flight throughout the flight envelope,
 - (F) recognition of, and recovery from, incipient and full stalls and spiral dives,
 - (G) normal and cross-wind launches, approaches and landings,
 - (H) cross-country flying using visual reference and dead-reckoning,
 - (I) emergency procedures;
- (d) **Skill:** the applicant shall have demonstrated the ability to perform as Pilot-in-command of a glider, the procedures and manoeuvres described in sub-rule (i) (c) with a degree of competency appropriate to the privileges granted to the holder of a Glider Pilot Licence, and to:—
- (i) operate the glider within its limitations,
 - (ii) complete all manoeuvres with smoothness and accuracy,
 - (iii) exercise good judgment and airmanship,
 - (iv) apply aeronautical knowledge, and
 - (v) maintain control of the glider at all times in a manner such that the successful outcome of a procedure or manoeuvre is never seriously in doubt;
- (e) **Medical Fitness:** the applicant shall hold medical fitness on the basis of compliance with the requirements as laid down in rules 51 and 53.

(2) **Privileges**—Subject to validity of endorsements and ratings in the licence, the privileges of the holder of a Glider Pilot Licence shall be to act as Pilot-in-command of any glider provided the licence holder has operational experience in the launching method used.”;

(৯) **rule 27** এর পর নিম্নরূপ নতুন **rule 27A** সন্নিবেশিত হইবে, যথাঃ—

“**27A. Free Balloon Pilot Licence.**— (1) The provisions of the Free Balloon Pilot Licence apply to free balloon using hot air or gas. (2) Requirements for the issue of the Licence—An applicant for a Free Balloon Pilot's Licence shall satisfy the following requirements:—

- (a) **Age:** the applicant shall be not less than 16 years of age on the date of application;
- (b) **knowledge:** the applicant shall have demonstrated a level of knowledge appropriate to the privileges granted to the holder of a Free Balloon Pilot Licence in at least the following subjects :—

Air law—

- (i) rules and regulations relevant to the holder of a Free Balloon Pilot Licence, rules of the air, appropriate air traffic services, practices and procedures,

Aircraft general knowledge—

- (ii) principles of operations of free balloon systems and instruments,
- (iii) operating limitations of free balloons, relevant operational information from the flight manual or other appropriate documents,
- (iv) physical properties and practical application of gasses used in free balloons,

Flight performance and planning—

- (v) effects of loading on flight characteristics, mass calculations,

- (vi) use and practical application of launching landing and other performance data, including the effect of temperature,
- (vii) pre-flight and en-route flight planning appropriate to operations under VFR, appropriate air traffic services procedures, altimeter setting procedures, operations in areas of high-density traffic,

Human performance and limitations—

- (viii) human performance and limitations relevant to the free balloon pilot,

Meteorology—

- (ix) application of elementary aeronautical meteorology; use of, and procedures for obtaining, meteorological information, altimetry,

Navigation—

- (x) practical aspects of air navigation and dead-reckoning techniques, use of aeronautical charts,

Operational procedures—

- (xi) use of aeronautical documentation such as AIP, NOTAM, aeronautical codes and abbreviations,
- (xii) appropriate precautionary and emergency procedures, including action to be taken to avoid hazardous weather, wake turbulence and other operating hazards,

Principles of flight—

- (xiii) principles of flight relating to free balloons,

Radiotelephony—

- (xiv) knowledge in radiotelephony procedures and phraseology as appropriate to VFR operations and on action to be taken in case of communication failure ;

- (c) **Experience :** (i) the applicant shall have completed not less than 16 hours time as a pilot of free balloons including at least eight launches and ascents of which

one must be solo. (ii) the applicant shall have gained, under appropriate supervision, operational experience in free balloons in at least the following areas :—

- (A) per-flight operations, including balloon assembly, rigging, inflation, mooring and inspection,
- (B) techniques and procedures for the launching and ascent, including appropriate limitations, emergency procedures and signals used,
- (C) collision avoidance precautions,
- (D) control of a free balloon by external visual reference,
- (E) recognition of, and recovery from, rapid descents,
- (F) cross-country flying using visual reference and dead-reckoning,
- (G) approaches and landing, including ground handling,
- (H) emergency procedure :

Provided that the privileges of the licence are to be exercised at night, the applicant shall have gained, under appropriate supervision, operational experience in free balloons in night flying;

(d) **Skill:** the applicant shall have demonstrated the ability to perform as Pilot-in-command of a free balloon, the procedures and manoeuvres described in sub-rule (1) (c) with a degree of competence appropriate to the privileges granted to the holder of a Free Balloon Pilot's Licence, and to :—

- (i) Operate the free balloon within its limitations,
- (ii) complete all manoeuvres with smoothness and accuracy,
- (iii) exercise good judgement and airmanship,
- (iv) apply aeronautical knowledge, and
- (v) maintain control of the free balloon at all times in a manner such that the successful outcome of a procedure or manoeuvre is never seriously in doubt;

(e) **Medical fitness** : the applicant shall have his fitness on the basis compliance with the requirements as laid down in rules 51 and 53.

(2) **Privileges** : (a) subject to the validity of endorsements and ratings in the licence the privileges of the holder of a Free Balloon Pilot Licence shall be to act as Pilot-in-command of any free balloon provided that the licence holder has operational experience in hot air or gas balloons as appropriate;

(b) if the privileges of the Licence are to be exercised at night, the Licence holder shall have complied with the requirements specified in sub-rule (1) (c).";

(১০) rule 28 এর পরিবর্তে নিম্নরূপ rule 28 প্রতিস্থাপিত হইবে, যথা ঃ—

"28. private Pilot Licence for Helicopter: (1) Requirements for the issue of the Licence—An applicant for a Private Pilot Licence for helicopter shall satisfy the following requirements:—

(a) **Age**: the applicant shall be not less than 17 years of age on the date of application;

(b) **Academic qualification and knowledge**: the applicant shall have passed at least Secondary School Certificate Examination or its equivalent and shall pass a written examination in the following subjects:—

Air Law—

(i) rules and regulations relevant to the holder of a private pilot Licence for helicopter, rules of the air, appropriate air traffic services practices and procedures,

Aircraft general knowledge—

(ii) principles of operation of helicopter powerplants, transmission (power-trains), systems and instruments,

(iii) operating limitations of helicopters and powerplants, relevant operational information from the flight manual,

Flight performance and planning—

- (iv) effects of loading and mass distribution on flight characteristics, mass and balance calculations,
- (v) use and practical application of take-off, landing and other performance data,
- (vi) pre-flight and en-route flight planning appropriate to private operations under VFR, preparation and filing of air traffic services flight plans; appropriate air traffic services procedures, position reporting procedures; altimeter setting procedures, operations in areas of high-density traffic,

Human performance and limitations—

- (vii) human performance and limitations relevant to the private pilot-helicopter,

Meteorology—

- (viii) application of elementary aeronautical meteorology, use of, and procedures for obtaining, meteorological information, altimetry,

Navigation—

- (ix) practical aspects of air navigation and dead-reckoning techniques, use of aeronautical charts,

Operational procedures—

- (x) use of aeronautical documentation such as AIP, NOTAM, aeronautical codes and abbreviations,
- (xi) appropriate precautionary and emergency procedures, including action to be taken to avoid hazardous weather and wake turbulence; settling with power, ground resonance, roll-over and other operating hazards,

Principles of flight—

- (xii) principles of flight relating to helicopters,

Radiotelephony—

- (xiii) radiotelephony procedures and phraseology as applied to VFR operations, action to be taken in case of communication failure;

(c) **Experience** : (i) the applicant shall have completed not less than 40 hours of flight time as a pilot of helicopter, experience as a pilot under instruction in a synthetic flight trainer, approved by Chairman, is acceptable as part of the total flight time of 40 hours and credit for the experience shall be limited to a maximum of 5 hours. (ii) the flight time shall include—

(A) not less than 10 hours of solo flight time under the supervision of an authorized flight instructor, including 5 hours of solo cross-country flight time with at least one cross-country flight totalling not less than 180 km (100 NM) in the course of which full-stop landing at two different aerodromes shall be made,

(B) not less than 10 hours of solo flight time completed within a period of 12 months immediately preceding the date of application for the licence and must include the cross-country flight time:

Provided that a person who has satisfactorily completed not less than 300 hours of flight time as pilot-in-command of an aeroplane shall be required to complete on a helicopter not less than 20 hours of total flight time, dual and solo, which shall include not less than 10 hours of solo flight time completed within a period of 12 months immediately preceding the date of application for licence ;

(d) **Flight Instruction** : (i) the applicant shall have received not less than 20 hours of dual instruction time in helicopter from an authorised flight instructor. (ii) the instructor shall ensure that the applicant has operational experience in at least the following areas to the level of performance required for the private pilot :

(A) pre-flight operations, including mass and balance determination, helicopter inspection and servicing,

(B) aerodrome and traffic pattern operations, collision avoidance precautions and procedures,

- (C) control of the helicopter by external visual reference,
- (D) recovery at the incipient stage from setting with power; recovery techniques from low-rotor rpm within the normal range of engine rpm,
- (E) ground manoeuvring and run-ups; hovering; take-offs and landings-normal, out of wind and sloping ground,
- (F) take-offs and landings with minimum necessary power; maximum performance take-off and landing techniques, restricted site operations; quick stops,
- (G) cross-country flying using visual reference, dead reckoning and where available, radio navigation aids, including a flight of at least one hour;
- (H) emergency operations, including simulated helicopter equipment malfunctions authoritative approach and landing, and
- (I) operations to, from and transiting controlled aerodromes, compliance with air traffic services procedures, radiotelephony procedures and phraseology;

(e) **Skill** : the applicant shall have demonstrated the ability to perform as pilot-in-command of an helicopter, the procedures and manoeuvres described in the sub-rule (1)(d)(i) with a degree of competency appropriate to the privileges granted to the holder of a Private Pilot Licence for helicopter, and to :

- (i) operate the helicopter within its limitations,
- (ii) complete all manoeuvres with smoothness and accuracy,
- (iii) exercise good judgment and airmanship,
- (iv) apply aeronautical knowledge, and
- (v) maintain control of the helicopter at all times in a manner such that the successful outcome of a procedure or manoeuvres is never seriously in doubt;

(f) **Medical Fitness** : the applicant shall hold medical fitness on the basis of compliance with the requirements as laid down in rules 51 and 53.

(2) **Privileges** : (a) subject to the validity of endorsements and ratings in the licence, the privileges of the holder of a Private Pilot Licence for helicopter shall be to act, but not for remuneration, as Pilot-in-command or co-pilot of any aeroplane engaged in non-revenue flights.

(b) if the privileges of the Licence are to be exercised at night, the applicant shall have received dual instruction in helicopters in night flying, including take-offs, landings and navigation.”;

(১১) rule 29 এর পরিবর্তে নিম্নরূপ rule 29 প্রতিস্থাপিত হইবে, যথাঃ—

“29. Commercial Pilot Licence for Helicopter.—(1) Requirements for the issue of the Licence—An applicant for a Commercial Pilot Licence for Helicopter shall satisfy the following requirements :—

(a) **Age:** the applicant shall be not less than 18 years of age on the date of application.

(b) **Academic qualification and knowledge:** the applicant shall have passed at least Higher Secondary Certificate (Science) Examination with physics and Mathematics or its equivalent and pass a written examination in the following subjects :—

Air law—

(i) rules and regulations relevant to the holder of a Commercial Pilot Licence for helicopter, rules of the air, appropriate air traffic services practices and procedures,

Aircraft general knowledge—

(ii) principles of operation and functioning of helicopter powerplants, transmission (power-trains), systems and instruments,

(iii) operation limitations of appropriate helicopter and powerplants, relevant operational information from the flight manual,

- (iv) use and serviceability checks of equipment and systems of appropriate helicopters,
- (v) maintenance procedures for airframes, systems and powerplants of appropriate helicopter,

Flight performance and planning—

- (vi) effects of loading and mass distribution, including external loads, on helicopter handling, flight characteristics and performance, mass and balance calculations,
- (vii) use and practical application of take-off, landing and other performance data,
- (viii) pre-flight and en-route flight planning appropriate to operations under VFR, preparation and filing of air traffic services flight plans, appropriate air traffic services procedures, altimeter setting procedures,

Human performance and limitations—

- (ix) human performance and limitations relevant to the commercial pilot-helicopter,

Meteorology—

- (x) interpretation and application of aeronautical meteorological reports, charts and forecasts, use of, and procedures for obtaining, meteorological information, per-flight and in-flight, altimetry,
- (xi) aeronautical meteorology; climatology of relevant areas in respect of the elements having an effect upon aviation, the movement of pressure systems, the structure of fronts, and the origin and characteristics of significant weather phenomena which affect take-off, en-route and landing conditions; hazardous weather avoidance,

Navigation—

- (xii) air navigation, including the use of aeronautical charts, instruments and navigation aids, an understanding of the principles and characteristics of appropriate navigation systems, operation of airborne equipment,

Operational procedures—

- (xiii) use of aeronautical documentation such as AIP, NOTAM, aeronautical codes and abbreviations,
- (xiv) appropriate precautionary and emergency procedures, including action to be taken to avoid hazardous weather and wake turbulence, settling with power, ground resonance, roll-over and other operating hazards,
- (xv) operational procedures for carriage of freight, including external loads, potential hazards associated with dangerous goods,
- (xvi) requirements and practices for safety briefing to passengers, including precautions to be observed when embarking and disembarking from helicopters,

Principles of flight—

- (xvii) principles of flight relating to helicopters,

Radiotelephony—

- (xviii) radiotelephony procedures and phraseology as applied to VFR operations, action to be taken in case of communication failure;

- (c) **Experience:** (i) the applicant shall have completed not less than 150 hours of flight time, or 100 hours if completed during a course of approved training, as a pilot of helicopters; experience as a pilot under instruction in a synthetic flight trainer, approved by the Chairman, is acceptable as part of the total flight time of 150 hours or 100 hours, as the case may be and credit for such experience shall be limited to a maximum of 10 hours. (ii) the flight time shall include:—

- (A) not less than 35 hours as Pilot-in-command,
- (B) not less than 10 hours of cross-country flight time as Pilot-in-command including a cross-country flight in the course of which full-stop landings at two different aerodromes shall be made,

- (C) not less than 10 hours of instrument instruction time of which not more than 5 hours may be instrument ground time; and
- (D) if the privileges of the licence are to be exercised at night, not less than 5 hours of night flight time including 5 take-offs and 5 landings as Pilot-in-command:

Provided that a person who is the holder of any class of Pilot's Licence and has satisfactorily completed not less than 500 hours on flight time as Pilot-in-command in an aeroplane shall be required to complete on a helicopter not less than 30 hours of flight time, dual and solo, including not less than 20 hours of flight time as Pilot-in-command which shall include not less than 5 hours of cross-country flight time, not less than 10 take-offs and 10 landings by night and not less than 5 hours of flight time within a period of 6 months immediately preceding the date of application for licence;

- (d) **Flight Instruction** : when the applicant shall have received dual instruction in helicopters from an authorized flight instructor, the instructor shall ensure that the applicant has operational experience in at least the following areas to the level of performance required for the commercial pilot:—
- (i) per-flight operations, including mass and balance determination, helicopter inspection and servicing,
 - (ii) aerodrome and traffic pattern operations, collision avoidance precautions and procedures,
 - (iii) control of the helicopter by external visual reference,
 - (iv) recovery at the incipient stage from settling with power, recovery techniques from low-rotor rpm within the normal range of engine rpm,
 - (v) ground manoeuvring and run-ups; hovering; take-offs and landings - normal, out of wind and sloping ground; steep approaches,

- (vi) take-offs and landings with minimum necessary power; maximum performance take-off and landing techniques; restricted site operations; quick stops,
 - (vii) hovering out of ground effect; operations with external load, if applicable; flight at high altitude,
 - (viii) basic flight manoeuvres and recovery from unusual attitudes by reference solely to basic flight instruments,
 - (ix) cross-country flying using visual reference, dead reckoning and radio navigation aids; diversion procedures,
 - (x) abnormal and emergency procedures, including simulated helicopter equipment malfunctions, authoritative approach and landing,
 - (xi) operations to, from and transiting controlled aerodromes, compliance with air traffic services procedures, radiotelephony procedures and phraseology, and
 - (xii) if the privileges of the licence are to be exercised at night, the applicant shall have received dual instruction in helicopters in night flying, including take-offs, landings and navigation;
- (e) **Skill:** the applicant shall have demonstrated the ability to perform as Pilot-in-command of an helicopter, the procedures and manoeuvres described in sub-rule (1) (d) with a degree of competency appropriate to the privileges granted to the holder of a Commercial Pilot Licence for helicopter, and to:-
- (i) operate the helicopter within its limitations,
 - (ii) complete all manoeuvres with smoothness and accuracy,
 - (iii) exercise good judgment and airmanship,
 - (iv) apply aeronautical knowledge, and
 - (v) maintain control of the helicopter at all times in a manner such that the successful outcome of a procedure or manoeuvre is never seriously in doubt;

(f) **Medical Fitness:** the applicant shall hold medical fitness on the basis of compliance with the requirements as laid down in rules 51 and 52.

(2) **Privileges-**Subject to the validity of endorsement and ratings in the licence, the privileges of the holder of a Commercial Pilot Licence for helicopter shall be:—

- (a) to exercise all the privileges of the holder of a Private Pilot Licence for helicopter;
- (b) to act as Pilot-in-command in any helicopter engaged in operations other than commercial air transportation;
- (c) to act as Pilot-in-command in commercial air transportation in any helicopter certificated for single-pilot operation; and
- (d) to act as co-pilot in commercial air transportation in helicopter required to be operated with a co-pilot.”;

(১২) rule 30 এর পরিবর্তে নিম্নরূপ rule 30 প্রতিস্থাপিত হইবে, যথাঃ—

”30. **Airline Transport Pilot Licence for Helicopter.—(1) Requirements for the issue of the Licence—**An applicant for an Airline Transport Pilot Licence for Helicopter shall satisfy the following requirements:—

- (a) **Age:** the applicant shall be not less than 21 years of age on the date of application;
- (b) **Academic qualification and knowledge:** the applicant shall have passed at least Higher Secondary Certificate (Science) Examination with Physics and Mathematics or its equivalent and pass a written examination in the following subjects:—

Air law—

- (i) rules and regulations relevant to the holder of an Airline Transport Pilot Licence for helicopter, rules of the air, appropriate air traffic services practices and procedures,

Aircraft general knowledge—

- (ii) general characteristics and limitations of electrical, hydraulic, and other helicopter systems, flight control systems, including autopilot and stability augmentation,
- (iii) principles of operation, handling procedures and operating limitations of helicopter power plants, transmission (power-trains), effects of atmospheric conditions on engine performance, relevant operational information from the flight manual,
- (iv) operating procedures and limitations of appropriate helicopters, effects of atmospheric conditions on helicopter performance, relevant operational information from the flight manual,
- (v) use and service ability checks of equipment and systems of appropriate helicopters,
- (vi) flight instruments; compasses, turning and acceleration errors, gyroscopic instruments, operational limits and procession effects, practices and procedures in the event of malfunctions of various flight instruments,
- (vii) maintenance procedures for airframes, systems and powerplants of appropriate helicopter,

Flight performance and planning—

- (viii) effects of loading and mass distribution, including external loads, on helicopter handling, flight characteristics and performance; mass and balance calculations,
- (ix) use and practical application of take-off, landing and other performance data, including procedures for cruise control,
- (x) pre-flight and en-route operational flight planning, preparation and filing of air traffic services flight plans, appropriate air traffic services procedures, altimeter setting procedures,

Human performance and limitations—

- (xi) human performance and limitations relevant to the airline transport pilot-helicopter,

Meteorology—

- (xii) interpretation and application of aeronautical meteorological reports, charts and forecasts; codes and abbreviations, use of, and procedures for obtaining, meteorological information, pre-flight and in-flight, altimetry,

- (xiii) aeronautical meteorology; climatology of relevant areas in respect of the elements having an effect upon aviation, the movement of pressure systems, the structure of fronts, and the origin and characteristics of significant weather phenomena which affect take-off, en-route and landing conditions,

- (xiv) causes, recognition and effects of engine, airframe and rotor icing, hazardous weather avoidance,

Navigation—

- (xv) air navigation, including the use of aeronautical charts, radio navigation aids and area navigation systems, specific navigation requirements for long-range flights,

- (xvi) use, limitation and serviceability of avionics and instruments necessary for the control and navigation of helicopters,

- (xvii) use, accuracy and reliability of navigation systems; identification of radio navigation aids,

- (xviii) principles and characteristics of self-contained and external-referenced navigation systems, operation of airborne equipment,

Operational procedure—

- (xix) interpretation and use of aeronautical documentation such as AIP, NOTAM, aeronautical codes and abbreviations,

- (xx) precautionary and emergency procedures, settling with power, ground resonance, retreating blade stall, dynamic roll-over and other operating hazards, safety practices associated with flight under VFR,
- (xxi) operational procedures for carriage of freight, including external loads, and dangerous goods,
- (xxii) requirements and practices for safety briefing to passengers, including precautions to be observed when embarking and disembarking from helicopters,

Principles of flight—

- (xxiii) principles of flight relating to helicopters,

Radiotelephony—

- (xxiv) radiotelephony procedures and phraseology as applied to VFR operations; action to be taken in case of communication failure;

(c) **Experience:** (i) the applicant shall have completed not less than 1000 hours of flight time as a pilot of helicopters; experience as a pilot under instruction in a synthetic flight trainer, approved by the Chairman, is acceptable as part of the total flight time of 1000 hours and credit for such experience shall be limited to a maximum of 100 hours, of which not more than 25 hours shall have been acquired in a flight procedure trainer or a basic instrument flight trainer.

(ii) The flight time shall include:—

- (A) not less than 250 hours, either as pilot-in-command, or made up by not less than 100 hours as Pilot-in-command and the necessary additional flight time as co-pilot performing, under the supervision of the Pilot-in-command, the duties and functions of a Pilot-in-command, provided that the method of supervision employed is acceptable to the Chairman.

- (B) 200 hours of cross-country flight time, of which not less than 100 hours shall be as Pilot-in-command or as co-pilot performing, under the supervision of the Pilot-in-command, the duties and functions of a Pilot-in-command provided that the method of supervision employed is acceptable to the Chairman,
- (C) 30 hours of instrument time, of which not more than 10 hours may be instrument ground time, and
- (D) 50 hours of night flight as Pilot-in-command or as co-pilot;
- (d) **Flight Instruction:** when the applicant shall have received dual instruction in helicopters from an authorised flight instructor, the instructor shall ensure that the applicant has operational experience in at least the following areas to the level of performance required for the commercial pilot:—
- (i) Pre-flight operations, including mass and balance determination, helicopter inspection and servicing,
 - (ii) aerodrome and traffic pattern operations, collision avoidance precautions and procedures,
 - (iii) control of the helicopter by external visual reference,
 - (iv) recovery at the incipient stage from settling, with power, recovery techniques from low-rotor rpm within the normal range of engine rpm,
 - (v) ground manoeuvring and run-ups; hovering; take-offs and landings-normal, out of wind and sloping ground; steep approaches,
 - (vi) take-offs and landings with minimum necessary power; maximum performance take-off and landing techniques, restricted site operations, quick stops,
 - (vii) hovering out of ground effect, operations with external load, if applicable, flight at high altitude,

- (viii) basic flight manoeuvres and recovery from unusual attitudes by reference solely to basic flight instruments,
 - (ix) cross-country flying using visual reference, dead reckoning and radio navigation aids, diversion procedures,
 - (x) abnormal and emergency procedures, including simulated helicopter equipment malfunctions, authoritative approach and landing; and
 - (xi) operations to, from and transiting controlled aerodromes, compliance with air traffic services procedures, radiotelephony procedures and phraseology.
 - (xii) if the privileges of the licence are to be exercised at night, the applicant shall have received dual instruction in helicopters in night flying, including take-offs, landings and navigation;
- (e) **Skill:** the applicant shall have demonstrated the ability to perform, as Pilot-in-command of a helicopter required to be operated with a co-pilot, the following procedures and manoeuvres:—
- (i) pre-flight procedures, including the preparation of the operational flight plan and filing of the air traffic services flight plan,
 - (ii) normal flight procedures and manoeuvres during all phases of flight,
 - (iii) abnormal and emergency procedures and manoeuvres related to failures and malfunctions of equipment, such as power plant, systems and airframe, and
 - (iv) procedures for crew incapacitation and crew co-ordination, including allocation of pilot tasks, crew co-operation and use of checklists :

Provided that the applicant shall have demonstrated the ability to perform the procedures and manoeuvres described in sub-rule (1) (e) with a

degree of competency appropriate to the privileges granted to the holder of an Airline Transport Pilot Licence-helicopter, and to—

- (A) operate the helicopter within its limitations,
- (B) complete all manoeuvres with smoothness and accuracy,
- (C) exercise good judgment and airmanship,
- (D) apply aeronautical knowledge,
- (E) maintain control of the helicopter at all times in a manner such that the successful outcome of a procedure or manoeuvre is never in doubt,
- (F) understand and apply crew co-ordination and incapacitation procedures, and
- (G) communicate effectively with the other flight crew members ;

(f) **Medical Fitness** : The applicant shall hold medical fitness on the basis of compliance with the requirements as laid down in rules 51 and 52.

(2) **Privileges**- Subject to the validity of endorsements and ratings in the licence, the privileges of the holder of a Commercial Pilot Licence for helicopter shall be :

- (a) to exercise all the privileges of the holder of a private and Commercial Pilot Licence for helicopter, and
- (b) to act as Pilot-in-command in any co-pilot in helicopters in air transportation.”;

(১৩) rule 31 অবলুপ্ত হইবে ;

(১৪) rule 32 এর পরিবর্তে নিম্নরূপ rule 32 প্রতিস্থাপিত হইবে, যথা ঃ—

“32. **Instrument Rating for Aeroplane.**—(1) **The requirement for the issue of Instrument Rating for Aeroplane**—An applicant for an Instrument Rating shall satisfy the following requirements :—

- (a) **Knowledge** : the applicant shall have demonstrated a level of knowledge appropriate to the privileges granted to the holder of an Instrument Rating for Aeroplane, in at least the following subjects :

Air law—

- (i) rules and regulations relevant to flight under IFR, related air traffic services practices and procedures,

Aircraft general knowledge—

- (ii) use, limitation and serviceability of avionics and instruments necessary for the control and navigation of aeroplanes under IFR and in instrument meteorological conditions, use and limitations of autopilot,
- (iii) compasses, turning and acceleration errors, gyroscopic instruments, operational limits and precession effects, practices and procedures in the event of malfunctions of various flight instruments,

Flight performance and planning—

- (iv) pre-flight preparations and checks appropriate to flight under IFR,
- (v) operational flight planning, preparation and filing of air traffic services flight plans under IFR, altimeter setting procedures,

Human performance and limitations—

- (vi) human performance and limitations relevant to instrument flight in aeroplanes,

Meteorology—

- (vii) application of aeronautical meteorology, interpretation and use of reports, charts and forecasts, codes and abbreviations ; use of, and procedures for obtaining, meteorological information, altimetry,
- (viii) causes, recognition and effects of engine and airframe icing, frontal zone penetration procedures, hazardous weather avoidance,

Navigation—

- (ix) practical air navigation using radio navigation aids,
- (x) use, accuracy and reliability of navigation systems used in departure, en-route, approach and landing phases of flight, identification of radio navigation aids,

Operational procedures—

- (xi) interpretation and use of aeronautical documentation such as AIP, NOTAM, aeronautical codes and abbreviations, and instrument procedure charts for departure, en-route, descent and approach,
- (xii) precautionary and emergency procedures, safety practices associated with flight under IFR,

Radiotelephony-

- (xiii) radiotelephony procedures and phraseology as applied to aircraft operations under IFR, action to be taken in case of communication failure,
- (b) **Experience** : the applicant shall hold a Private or Commercial Pilot Licence for aeroplane, and the applicant shall have completed not less than ;
- (i) 50 hours of cross-country flight time as Pilot-in-command of aircraft in categories acceptable to the Chairman, of which not less than 10 hours shall be in aeroplanes, and
 - (ii) 40 hours of instrument time in aeroplanes or helicopters of which not more than 20 hours or 30 hours where a flight simulator is used, may be instrument ground time, and the ground time shall be under the supervision of an authorized instructor.
- (c) **Flight Instruction** : the applicant shall have gained not less than 10 hours of the instrument flight time required in sub-rule (1) (b) (ii) of this Rule while receiving dual instrument flight instruction in

aeroplanes from an authorized flight instructor, and the instructor shall ensure that the applicant has operational experience in at least the following areas to the level of performance required for the holder of an instrument rating :—

- (i) pre-flight procedures including the use of the flight manual or equivalent document, and appropriate air traffic services documents in the preparation of an IFR flight plan,
- (ii) pre-flight inspection, use of checklists, taxing and pre-take-off-checks,
- (iii) procedures and manoeuvres for IFR operation under normal, abnormal and emergency conditions covering at least—
 - (A) transition to instrument flight on take-off,
 - (B) standard instrument departures and arrivals,
 - (C) en-route IFR procedures
 - (D) holding procedures,
 - (E) instrument approaches to specified minima,
 - (F) missed approach procedures, and
 - (G) landings from instrument approaches,
- (iv) in-flight manoeuvres and particular flight characteristics, and
- (v) if the privileges of the instrument rating are to be exercised on multi-engined aeroplanes, the applicant shall have received dual instrument flight instruction in such an aeroplane from an authorized flight instructor, and the instructor shall ensure that the applicant has operational experience in the operation of the aeroplane solely by reference to instruments with one engine inoperative or simulated inoperative;

(d) **Skill** : the applicant shall have demonstrated the ability to perform the procedures and manoeuvres described in the sub-rule (1)(c)(i) to (iv) with a degree of competency appropriate to the privileges granted to the holder of an instrument rating-aeroplane, and to—

- (i) operate the aeroplane within its limitations,
- (ii) complete all manoeuvres with smoothness and accuracy,
- (iii) exercise good judgement and airmanship,
- (iv) apply aeronautical knowledge,
- (v) maintain control of the aeroplane at all times in a manner such that the successful outcome of a procedure or manoeuvre is never seriously in doubt, and
- (vi) the applicant shall have demonstrated the ability to operate multi-engined aeroplanes solely by reference to instruments with one engine inoperative, or simulated inoperative, if the privileges of the instrument rating on such aeroplanes;

(d) **Medical fitness** : the applicant shall have established medical fitness on the basis of compliance with the requirements as laid down in rules 51 and 52.

(2) **Privileges.** Subject to the validity of endorsements and ratings in the licence, the privileges of the holder of an Instrument Rating for Aeroplane shall be to pilot aeroplanes under IFR:

Provided that before exercising the privileges on multi-engined aeroplanes, the holder of the rating shall have complied with the requirements of sub-rule (1)(c)(v) & (2)(d)(vi) of this Rule.”;

(১৫) rule 32 এর পর নিম্নরূপ নতুন rule 32A সন্নিবেশিত হইবে, যথা ঃ—

“32A. **Instrument Rating for Helicopter.**—(1) The requirement for the issue of an Instrument Rating for

Helicopter: The applicant shall satisfy the following requirements:—

- (a) **Knowledge:** the applicant shall have demonstrated a level of knowledge appropriate to the privileges granted to the holder of an Instrument Rating for Helicopter, in at least the following subjects:—

Air law—

- (i) rules and regulations relevant to flight under IFR, related air traffic services practices and procedures,

Aircraft general knowledge—

- (ii) use, limitation and serviceability of avionics and instruments necessary for the control and navigation of helicopters under IFR and in instrument meteorological conditions, use and limitations of autopilot,
- (iii) compasses, turning and acceleration errors; gyroscopic instruments, operational limits and precession effects, practices and procedures in the event of malfunctions of various flight instruments,

Flight performance and planning—

- (iv) pre-flight preparations and checks appropriate to flight under IFR,
- (v) operational flight planning; preparation and filing of air traffic services flight plans under IFR, altimeter setting procedures,

Human performance and limitations—

- (vi) human performance and limitations relevant to instrument flight in helicopters,

Meteorology—

- (vii) application of aeronautical meteorology, interpretation and use of reports, charts and forecasts codes and abbreviations, use of, and procedures for obtaining, meteorological information; altimetry,

- (viii) causes, recognition and effects of engine and airframe and rotor icing, frontal zone penetration procedures, hazardous weather avoidance;

Navigation—

- (ix) practical air navigation using radio navigation aids,
- (x) use, accuracy and reliability of navigation systems used in departure, en-route, approach and landing phases of flight, identification of radio navigation aids,

Operational procedures—

- (xi) interpretation and use of aeronautical documentation such as AIP, NOTAM, aeronautical codes and abbreviations, and instrument procedure charts for departure, en-route, descent and approach,
- (xii) precautionary and emergency procedures, safety practices associated with flight under IFR,

Radiotelephony—

- (xiii) radiotelephony procedures and phraseology as applied to aircraft operations under IFR, action to be taken in case of communication failure;

(b) **Experience;** the applicant shall hold a Private, Commercial or Airline Transport Pilot Licence for helicopter, and the applicant shall have completed not less than;

- (i) 50 hours of cross-country flight time as Pilot-in-command of aircraft in categories acceptable to the Chairman, of which not less than 10 hours shall be in helicopters, and
- (ii) 40 hours of instrument time in helicopters or aeroplanes of which not more than 20 hours, or 30 hours where a flight simulator is used, may be instrument ground time, and the ground time shall be under the supervision of an authorized instructor.

- (c) **Flight Instruction:** the applicant shall have gained not less than 10 hours of the instrument flight time required in sub-rule (I) (b) (ii) while receiving dual instrument flight instruction in helicopters from an authorized flight instructor, and the instructor shall ensure that the applicant has operational experience in at least the following areas to the level of performance required for the holder of an instrument rating :—
- (i) pre-flight procedures, including the use of the flight manual or equivalent document, and appropriate air traffic services documents in the preparation of an IFR flight plan,
 - (ii) pre-flight inspection, use of checklists, taxing and pre-take-off checks,
 - (iii) procedures and manoeuvres for IFR operation under normal, abnormal and emergency conditions covering at least—
 - (A) transition to instrument flight on take-off;
 - (B) standard instrument departures and arrivals;
 - (C) en-route IFR procedures;
 - (D) holding procedures;
 - (E) instrument approaches to specified minima;
 - (F) missed approach procedures, and
 - (G) landing from instrument approaches,
 - (iv) in-flight manoeuvres and particular flight characteristics, and
 - (v) if appropriate, operation of a multi-engined helicopter, solely by reference to instruments with one engine inoperative or simulated inoperative;
- (d) **Skill:** The applicant shall have demonstrated the ability to perform the procedures and manoeuvres described in sub-rule (1) (c) with a degree of

competency appropriate to the privileges granted to the holder of an instrument rating-helicopter, and to—

- (i) operate the helicopter within its limitations,
- (ii) complete all manoeuvres with smoothness and accuracy,
- (iii) exercise good judgement and airmanship,
- (iv) apply aeronautical knowledge, and
- (v) maintain control of the helicopter at all times in a manner that the successful outcome of a procedure or manoeuvre is never seriously in doubt :

Provided the applicant shall have demonstrated the ability to operate multi-engined helicopters solely by reference to instruments with one engine inoperative, or simulated inoperative;

- (e) **Medical fitness** : the applicant shall have established medical fitness on the basis of compliance with the requirements as laid down in rules 51 and 52.

- (2) **Privileges**.—Subject to the validity of endorsements and ratings in the licence, the privileges of the holder of an Instrument Rating for Helicopter shall be to pilot helicopters under IFR ;

Provided that before exercising the privileges on multi-engined helicopter, the holder of the rating shall have complied with the requirements of sub-rule (1) (c) (v).”;

(১৬) **rule 33** অবলুপ্ত হইবে;

(১৭) **rule 34** এর পরিবর্তে নিম্নরূপ **rule 34** প্রতিস্থাপিত হইবে, যথা :—

“34. **Flight Instructor Rating**.—(1) **Requirements for the issue of the Flight Instructor’s Rating**—An applicant for the Flight Instructor’s Rating shall satisfy the following requirements :—

- (a) **Age**: the applicant shall be not less than 21 years of age on the date of application;

- (b) **Knowledge:** the applicant for Flight Instructor Rating appropriate to aeroplanes and helicopters shall have met the knowledge requirements for the issue of a Commercial Pilot Licence as specified in rule 24 or rule 29 as appropriate, and in addition, the applicant shall have demonstrated a level of knowledge appropriate to the privileges granted to the holder of a Flight Instructor Rating, in at least the following areas :—
- (i) techniques of applied instruction,
 - (ii) assessment of student performance in those subjects in which ground instruction is given,
 - (iii) the learning process,
 - (iv) elements of effective teaching,
 - (v) student evaluation and testing, training philosophies,
 - (vi) training programme development,
 - (vii) lesson planning,
 - (viii) classroom instructional techniques,
 - (ix) use of training aids,
 - (x) analysis and correction of student errors,
 - (xi) human performance and limitations relevant to flight instruction, and
 - (xii) hazards involved in simulating system failures and malfunctions in the aircraft;
- (c) **Experience:** the applicant shall have met the experience requirements for the issue of a Commercial Pilot Licence specified in rule 24(c) or 29(c), as appropriate;
- (d) **Flight Instruction :** the applicant shall, under the supervision of a flight instructor accepted by the Chairman for that purpose,
- (i) have received instruction in flight instructional techniques including demonstration, student practices, recognition and correction of common student errors, and

- (ii) have practised instructional techniques in those flight manoeuvres and procedures in which it is intended to provide flight instruction;
- (e) **Skill** : the applicant shall have demonstrated, in the category of aircraft for which flight instructor privileges are sought, the ability to instruct in those areas in which flight instruction is to be given, including pre-flight, post-flight and ground instruction as appropriate.

(2) **Privileges**—subject to the validity of endorsements and ratings in pilot's licence, the privileges of the holder of a Flight Instructor Rating shall be—

- (a) to supervise solo flights by student pilots ; and
- (b) to carry out flight instruction for the issue of a Private Pilot Licence, a Commercial Pilot Licence, an Instrument Rating, and a Flight Instructor Rating :

Provided that the flight instructor—

- (i) holds at least the licence and rating for which instruction is being given, in the appropriate aircraft category,
- (ii) holds the licence and rating necessary to act as the Pilot-in-command of the aircraft on which the instruction is given, and has the flight instructor privileges granted entered on the licence.”;

(১৮) rule 35 এর পরিবর্তে নিম্নরূপ rule 35 প্রতিস্থাপিত হইবে, যথা §—

“35. **Flight Navigator Licence.** (1) **Requirement for the issue of the Licence-** An applicant for the Flight Navigator Licence shall meet the following requirements :—

- (a) **Age:** the applicant shall be not of less than 18 years of age on the date of application;
- (b) **Academic Qualification and Knowledge:** the applicant shall have passed the Higher Secondary Certificate (Science) Examination or its equivalent and

shall pass written examination in at least the following subjects:—

Air law—

- (i) rules and regulations relevant to the holder of a Flight Navigator Licence; appropriate air traffic services practices and procedures,

Flight performance and planning—

- (ii) effects of loading and mass distribution on aircraft performance,
- (iii) use of take-off, landing and other performance data including procedures for cruise control,
- (iv) pre-flight and en-route operational flight planning; preparation and filing of air traffic services flight plans, appropriate air traffic services procedures, altimeter setting procedures,

Human performance and limitations—

- (v) human performance and limitations relevant to the flight navigator,

Meteorology—

- (vi) interpretation and practical application of aeronautical meteorological reports, charts and forecasts; codes and abbreviations, use of, and procedures for obtaining, meteorological information, pre-flight and in-flight altimetry,
- (vii) aeronautical meteorology, climatology of relevant areas in respect of the elements having an effect upon aviation, the movement of pressure systems; the structure of fronts and the origin and characteristics of significant weather phenomena which effect take-off, en-route and landing conditions,

Navigation—

- (viii) dead-reckoning, pressure-pattern and celestial navigation procedures, the use of aeronautical charts, radio navigation aids and area navigation systems, specific navigation requirement for long-rang flights,

- (ix) use, limitation and serviceability of avionics and instruments necessary for the navigation of the aircraft,
- (x) use, accuracy and reliability of navigation systems used in departure, en-route and approach phases of flight, identification of radio navigation aids,
- (xi) principles, characteristics and use of self-contained and external-referenced navigation systems, operation of airborne equipment,
- (xii) the celestial sphere including the movement of heavenly bodies and their selection and identification for the purpose of observation and reduction of sights, calibration of sextants, the completion of navigation documentation,
- (xiii) definitions, units and formulae used in air navigation,

Operational procedures—

- (xiv) interpretation and use of aeronautical documentation such as AIP, NOTAM, aeronautical codes, abbreviations, and instrument procedure charts for departure, en-route, descent and approach,

Principles of flight—

- (xv) principles of flight,

Radiotelephony—

- (xvi) radiotelephony procedures and phraseology;

- (c) **Experience :** (i) the applicant shall have completed in the performance of the duties of a flight navigator, not less than 200 hours of flight time acceptable to the Chairman, in aircraft engaged in cross-country flights, including not less than 30 hours by night,
- (ii) when the applicant has flight time as a pilot, the Chairman shall determine whether such experience is acceptable and, if so, the extent to which the flight time requirements of sub-rule (i) of this Rule can be reduced accordingly,
- (i) the applicant shall produce evidence of having satisfactorily determined the aircraft's position in

flight, and used that information to navigate the aircraft, as follows:—

- (A) by night -not less than 25 times by celestial observations, and
- (B) by day -not less than 25 times by celestial observations in conjunction with self-contained or external referenced navigation systems:

(d) **Skill:** the applicant shall have demonstrated the ability to perform as flight navigator of an aircraft with a degree of competency appropriate to the privileges granted to the holder of a flight navigator licence, and to:-

- (i) exercise good judgment and airmanship,
- (ii) apply aeronautical knowledge,
- (iii) perform all duties as part of an integrated crew; and
- (iv) communicate effectively with the other flight crew members;

(e) **Medical fitness:** the applicant shall have established medical fitness on the basis of compliance with the requirements as laid down in rules 51 and 53.

(2) **privileges:** the privileges of the holder of a Flight Navigator Licence shall be to act as a Flight Navigator of any aircraft where a flight navigator is required to be carried.”;

(১৯) **rule 36** অবলুপ্ত হইবে;

(২০) **rule 37** এর পরিবর্তে নিম্নরূপ **rule 37** প্রতিস্থাপিত হইবে, যথাঃ—

“37. **Flight Engineer Licence.**—(1) Requirements for the issue of the Licence.-An applicant for the Flight Engineer Licence shall satisfy the following requirements:-

- (a) **Age:** the applicant shall be not less than 18 years of age on the date of application;
- (b) **Academic Qualification and Knowledge:** the applicant shall have passed at least Higher

Secondary Certificate (Science) Examination or its equivalent and shall pass written examination in at least the following subjects:—

Air law—

- (i) rules and regulations relevant to the holder of a Flight Engineer Licence, rules and regulations governing the operation of civil aircraft pertinent to the duties of a flight engineer;

Aircraft general knowledge—

- (ii) basic principles of powerplants, gas turbines and/or piston engines; characteristic of fuels, fuel systems including fuel control, lubricants and lubrication systems, afterburners and injection systems, function and operation of engine ignition and starter systems,
- (iii) principles of operation, handling procedures and operating limitations of aircraft powerplants; effects of atmospheric conditions on engine performance,
- (iv) airframes, flight controls, structures, wheel assemblies, brakes and anti-skid units, corrosion and fatigue life, identification of structural damage and defects,
- (v) ice and rain protection systems,
- (vi) pressurization and air-conditioning systems, oxygen systems,
- (vii) hydraulic and pneumatic systems,
- (viii) basic electrical theory, electric systems (AC and DC), aircraft wiring systems, bonding and screening,
- (ix) principles of operation of instruments, compasses, auto-pilots, radio communication equipment, radio and radar navigation aids, flight management systems, displays and avionics,
- (x) limitation of appropriate aircraft,

- (xi) fire protection, detection, suppression and extinguishing systems,
- (xii) use and serviceability checks of equipment and systems of appropriate aircraft,

Flight performance and planning—

- (xiii) effects of loading and mass distribution on aircraft handling, flight characteristics and performance, mass and balance calculations,
- (xiv) use and practical application of performance data including procedures for cruise control,

Human performance and limitation—

- (xv) human performance and limitations relevant to the flight engineer,

Operational procedures—

- (xvi) principles of maintenance, procedures for the maintenance of airworthiness, defect reporting, Pre-flight inspections, precautionary procedures for fuelling and use of external power, installed equipment and cabin systems,
- (xvii) normal, abnormal and emergency procedures,
- (xviii) operational procedures for carriage of freight and dangerous goods,

Principles of flight—

- (xix) fundamentals of aerodynamics,

Radiotelephony—

- (xx) radiotelephony procedures and phraseology.

Navigation—

- (xxi) fundamentals of navigation, principles and operation of self-contained systems, and

Meteorology—

- (xxii) operational aspects of meteorology;

- (c) **Experience** :—(i) the applicant shall have completed, under the supervision of a person accepted by the Chairman for that purpose, not less than 100 hours of flight time in the performance of the duties of a flight engineer, (ii) experience as a flight engineer in a flight simulator, approved by the Chairman, is acceptable as part of the total flight time of 100 hours, and credit for such experience shall be limited to a maximum of 50 hours, (iii) when the applicant has flight time as a pilot, the Chairman may reduce the extent of the flight time requirements not exceeding 40 hours.
- (iv) the applicant shall have operational experience in the performance of the duties of a flight engineer, under the supervision of a flight engineer accepted by the Chairman for that purpose, at least in the following areas :-
- (A) Normal procedures-
- pre-flight inspections,
 - fuelling procedures, fuel management,
 - inspection of maintenance documents,
 - normal flight deck procedures during all phases of flight,
 - crew co-ordination and procedures in case of crew incapacitation, and
 - defect reporting,
- (B) Abnormal and alternate (Standby) procedures-
- recognition of abnormal functioning of aircraft systems,
 - use of abnormal and alternate (standby) procedures,
- (C) Emergency procedures-
- recognition of emergency conditions,
 - use of appropriate emergency procedures;
- (d) **Skill**: the applicant shall have demonstrated the ability to perform as flight engineer of an aircraft, the duties and procedures described in sub-rule (1) (c) (ii)

with a degree of competency appropriate to the privileges granted to the holder of a flight engineer licence, and to:—

- (i) use aircraft systems within the aircraft's capabilities and limitations,
 - (ii) exercise good judgement and airmanship,
 - (iii) apply aeronautical knowledge,
 - (iv) perform all the duties as part of an integrated crew with the successful outcome never in doubt, and
 - (v) communicate effectively with the other flight crew members;
- (e) **Medical fitness:** the applicant shall have established medical fitness on the basis of compliance with the requirements as laid down in Rules 51 and 53 of these rules.

(2) **Privileges**—Subject to the endorsements and rating in the licence, the privileges of the holder of a Flight Engineer licence shall be to act as flight engineer of any type of aircraft on which the holder has demonstrated a level of knowledge and skill, as determined by the Chairman on the basis of those requirements specified in sub-rule (1) (b) and (1) (d) which are applicable to the safe operation of that type of aircraft.";

(২১) rule-38 অবলুপ্ত হইবে;

(২২) rule 38-এর পরিবর্তে নিম্নরূপ rule-38A প্রতিস্থাপিত হইবে যথাঃ—

"38A. Aeronautical Station Operator Licence.—(1) Requirements for the issue of the Licence: An applicant for an Aeronautical Station Operator Licence shall meet the following requirements:—

- (a) **Age:** the applicant shall be not less than 18 years of age on the date of application;
- (b) **Academic Qualification and Knowledge:** the applicant shall have passed Higher Secondary (Science) Examination or its equivalent and shall have

demonstrated level of knowledge appropriate to the holder of an Aeronautical Station Operator Licence, in at least the following subjects:—

General knowledge—

- (i) air traffic services provided within the State,

Language—

- (ii) the English language for use in air-ground communications and ability to speak such language without accent or impediment which would adversely affect radio communication,

Operational procedures—

- (iii) radiotelephony procedures; phraseology, telecommunications network,

Rules and regulations—

- (iv) rules and regulations applicable to the aeronautical station operator, and

Telecommunication equipment—

- (v) principles use and limitations of telecommunication equipment in an aeronautical stations;

(c) **Experience:** the applicant shall have—

- (i) satisfactorily completed an approved training course within the 12 month period immediately proceeding application and have served satisfactorily under a qualified aeronautical station operator for not less than two months, or

- (ii) satisfactorily served under a qualified aeronautical station operator for not less than six months during the 12 month period immediately preceding application;

(d) **Skill:** the applicant shall have demonstrated, or have demonstrated, competence in—

- (i) operating the telecommunication equipment in use, and

- (ii) transmitting and receiving radiotelephony messages with efficiency and accuracy.

- (2) **Privileges** : (a) the privileges of the holder of an Aeronautical Station Operator licence shall be to act as an operator in an aeronautical station (b) before exercising the privileges of the licence the holder shall be familiar with all pertinent and current information regarding the types of equipment and operating procedures used at that aeronautical station.";

(২৩) **rule 39** এর পরিবর্তে নিম্নরূপ **rule 39** প্রতিস্থাপিত হইবে, যথা :—

"39. Aircraft Maintenance Engineer.—(1) Requirement for the issue of the Licence—An applicant for the Aircraft Maintenance Engineer Licence shall meet the following requirements :—

- (a) **Age** : the applicant shall be not less than 18 years of age on the date of application;
- (b) **Academic qualification and knowledge** : the applicant shall have passed at least Higher Secondary (Science) Examination or its equivalent or has obtained a Diploma in relevant branch of Aircraft Maintenance Technology or Mechanical, Electrical, Power or Electronics Engineering and shall have demonstrated a level of knowledge relevant to the privileges to be granted and appropriate to the responsibilities of an aircraft maintenance engineer licence holder, in at least the following subjects :—

Air law and airworthiness requirements—

- (i) rules and regulations relevant to an aircraft maintenance engineer licence holder including applicable airworthiness requirements governing certification and continuing airworthiness of aircraft and approved aircraft maintenance organization and procedures,

Natural science and aircraft general knowledge—

- (ii) basic mathematics: units of measurement, fundamental principles and theory of physics and chemistry applicable to aircraft maintenance,

Aircraft engineering—

- (iii) characteristics and applications of the materials of aircraft construction including principles of construction and functioning of aircraft structures fastening techniques, powerplants and their associated systems, mechanical fluid, electrical and electronic power sources, aircraft instrument and display system, aircraft control systems, and airborne navigations and communications systems,

Aircraft maintenance—

- (iv) tasks required to ensure the continuing airworthiness of an aircraft including methods and procedures for the overhaul, repair, inspection, replacement, modification or defect rectification of aircraft structures, components and system in accordance with the methods prescribed in the relevant Maintenance Manuals and the applicable Standards of airworthiness, and

Human performance and limitations—

- (v) human performance and limitations relevant to the duties of an aircraft maintenance licence engineer holder;

(c) **Experience:** the applicant shall have had the following experience in the inspection, servicing and maintenance of aircraft or its components:—

- (i) for the issue of a licence with privileges for the aircraft in its entirety, at least—

(A) of four years or

(B) of two years if the applicant has satisfactorily completed an approved training course, and

- (ii) for the issue of a licence with privileges restricted in accordance with sub-rule (2)(b)(i) B. or (2)(b)(i) C a period of time that will enable a level of competency equivalent to that required in sub-rule (2)(b)(i) A to be attained, provided that this is not less than—

(A) two years; or

- (B) such a period as the Chairman considers necessary to provide an equivalent level of practical experience to applicants who have satisfactorily completed an approved training course;
- (d) **Skill:** the applicant shall have demonstrated the ability to perform those functions applicable to the privileges to be granted;
- (e) **Medical fitness:** the applicant shall have established medical fitness on the basis of compliance with the requirements as laid down in Rule 51.
- (2) **Privileges—**(a) Subject to compliance with the requirements specified in sub-rule (2)(b) and (2)(c), the privileges of the holder of an Aircraft Maintenance Engineer Licence shall be to certify the aircraft or parts of the aircraft as airworthy after an authorised repair, modification or installation of a powerplant, accessories, instrument, and/or item of equipment, to sign to maintenance release following inspection, maintenance operations and/or routine servicing ;
- (b) the privileges of the holder of an Aircraft Maintenance Engineer Licence specified in sub-rule (2)(a) shall be exercised only—
- (i) in respect of:—
- (A) such aircraft as are entered on the licence in their entirety either specifically or under broad categories,
- (B) such airframes and powerplants and aircraft systems or components as are entered on the licence either specifically or under broad categories, or
- (C) such aircraft avionic systems or components as are entered on the licence either specifically or under broad categories,
- (ii) on condition—
- (A) that the licence holder is familiar with all the relevant information relating to the maintenance and airworthiness of the particular aircraft for

which the licence holder is signing a Maintenance Release, or such airframe, powerplant, aircraft system or component, and aircraft avionic system or component which the licence holder is certifying as being airworthy, and

- (B) that, within the preceding 24 months the licence holder has either had experience in the inspection, servicing or maintenance of an aircraft or components in accordance with the privileges granted by the licence held for less than six months, or has met the provision for the issue of a licence with the appropriate privileges to the satisfaction of the Chairman;
- (C) the Chairman through Air Navigation order shall prescribe the scope of privileges of the licence holder in term of the complexity the task to which the certification relates;
- (D) in case of authorising and approved maintenance organization to appoint non-licence personnel to exercise the privileges of sub-rule (2) the person appointed shall meet the requirement specified in sub-rule (1).” ;

(২৪) rule 40 এর পরিবর্তে নিম্নরূপ rule 40 প্রতিস্থাপিত হইবে, যথা :—

"40. **Air Traffic Controller Licence** :—(1) **Requirements for the issue of the Air Traffic Controller Licence**—
The Chairman shall require an applicant for Air Traffic Controller Licence to meet the following requirements:—

- (a) **Age**: the applicant shall be not less than 21 years of age on the date of application;
- (b) **Academic Qualification and Knowledge**: the applicant shall have passed at least Higher Secondary Certificate (Science) Examination or its equivalent and shall have demonstrated a level of knowledge appropriate to the holder of an air traffic controller licence, in at least the following subjects:—

Air law—

- (i) rules and regulations relevant to the air traffic controller,

Air traffic control equipment—

- (ii) principles, use and limitations of equipment used in air traffic control,

General Knowledge—

- (iii) principles of flight, principles of operation and functioning of aircraft, powerplants and systems, aircraft performances relevant to air traffic control operations,

Human performance and limitations—

- (iv) human performance and limitations relevant to air traffic control—

Language—

- (v) the English language for use in air traffic control and ability to speak such language without accent or impediment, which would adversely affect radio communications,

Meteorology—

- (vi) aeronautical meteorology; use and appreciation of meteorological documentation and information, origin and characteristics of weather phenomena affecting flight operations and safety, altimetry,

Navigation—

- (vii) principles of air navigation, principle, limitation and accuracy of navigation systems and visual aids, and

Operational procedures—

- (viii) air traffic control, communication, radiotelephony and phraseology procedures (routine, non-routine and emergency), use of the relevant aeronautical documentation, safety practices associated with flight;

- (c) **Experience:** the applicant shall have completed an approved training course and not less than three month's satisfactory service engaged in the actual control of air traffic under the supervision of an appropriately rated air traffic controller;

(d) **Medical fitness:** the applicant shall hold medical fitness on the basis of compliance with the requirements as laid down in rules 51 and 54.”;

(২৫) **rule 41** এর পরিবর্তে নিম্নরূপ **rule 41** প্রতিস্থাপিত হইবে, যথাঃ—

“41. **Air Traffic Controller Ratings:**—(1) **Categories of Air Traffic Controller Ratings**—Air traffic controller ratings shall comprise the following categories:—

- (a) aerodrome control rating;
- (b) approach control rating;
- (c) approach radar control rating;
- (d) approach precision radar control rating;
- (e) area control rating; and
- (f) area radar control rating;

(2) **Requirement for air traffic controller ratings**—

(a) **Knowledge:** the Chairman shall require the applicant to demonstrate a level of Knowledge appropriate to the privileges granted, in at least the following subjects in so far as they affect the area of responsibility;

(i) aerodrome control rating—

- (A) aerodrome layout, physical characteristics and visual aids,
- (B) airspace structure,
- (C) applicable rules, procedures and source of information,
- (D) air navigation facilities,
- (E) air traffic control equipment and its use,
- (F) terrain and prominent landmarks,
- (G) characteristics of air traffic,
- (H) weather phenomena, and
- (I) emergency and search and rescue plans,

(ii) approach control and area control ratings—

- (A) airspace structure,
- (B) applicable rules, procedures and source of information,
- (C) air navigation facilities,
- (D) air traffic control equipment and its use,
- (E) terrain and prominent landmarks,
- (F) characteristics of air traffic and traffic flow,
- (G) weather phenomena, and
- (H) emergency and search and rescue plans,

(iii) approach radar, approach precision radar and area radar control ratings- the applicant shall meet the requirements specified in sub-rule (2) (a) (ii) in so far as they affect the area of responsibility, and shall have demonstrated a level of knowledge appropriate to the privileges granted in at least the following additional subjects:—

- (A) principles, use and limitations of radar, other surveillance systems and associated equipment, and
- (B) procedures for the provision of approach, precision approach or area radar control services, as appropriate including procedures to ensure appropriate terrain clearance;

(b) **Experience** : (i) the applicant shall have—

- (A) satisfactorily completed an approved training course under the supervision of an appropriately rated air traffic controller;
- (B) aerodrome control rating : an aerodrome control service, for a period of not less than 90 hours or one month, whichever is greater, at the unit for which the rating is sought,
- (C) approach, approach radar, area or area radar control rating, the control service for which the

rating is sought, for a period of not less than 180 hours or three months, whichever is greater, at the unit for which the rating is sought, and

- (D) approach precision radar control rating-not less than 200 precision approaches of which not more than 100 shall have been carried out on a radar simulator approved for that purpose by the Chairman. Not less than 50 of those precision approaches shall have been carried out at the unit and on the equipment for which the rating is sought,
- (ii) if the privileges of the approach radar control rating include surveillance radar approach duties, the experience shall include not less than 25 plan position indicator (PPI) approaches on the surveillance equipment of the type in use at the unit for which the rating is sought and under the supervision of an appropriately rated approach radar controller,
- (iii) The experience specified in sub-rule (2)(b)(ii) shall have been completed within the 6-month period immediately preceding application.
- (iv) when the applicant already holds an air traffic controller rating in another category, or the same rating for another unit, the Chairman may reduce the experience requirement specified in this sub-rule;
- (c) **Skill:** the applicant shall have demonstrated at a level appropriate to the privileges being granted, the skill, judgement and performance required to provide a safe, orderly and expeditious control service;
- (3) **Concurrent issuance of two air traffic controller ratings:** when two air traffic controller ratings are sought concurrently, the Chairman shall determine the applicable requirements on the basis of the requirements for each rating, and these requirements shall not be less than those of the more demanding rating.

(4) **Privileges** - (a) the privileges of the holder of Air Traffic Controller Licence endorsed with one or more for the under mentioned ratings shall be:-

- (i) **aerodrome control rating:** to provide or to supervise the provision of aerodrome control service for the aerodrome for which the licence holder is rated,
- (ii) **approach control rating:** to provide or to supervise the provision of aerodrome control service for the aerodrome or aerodromes for which the licence holder is rated, within the airspace or portion thereof, under the jurisdiction of the unit providing approach control service,
- (iii) **approach radar control rating:** to provide and/or supervise the provision the aerodrome or aerodromes for which the licence holder is rated, within the airspace or portion thereof, under the jurisdiction of the unit providing approach control service, and subject to compliance with the provision of sub-rule (2)(b)(iii) the privileges shall include the provision of surveillance radar approaches;
- (iv) **approach precision radar control rating:** to provide and/or supervise the provision of precision approach radar service at the aerodrome for which the licence holder is rated,
- (v) **area control rating:** to provide and/or supervise the provision of area control service within the control area or portion thereof, for which the licence holder is rated; and
- (vi) **area radar control rating:** to provide and/or supervise the provision of area control service with the use of radar, within the control area or portion thereof, for which the licence holder is rated;

(b) before exercising the privileges indicated in sub-rule (4)(a) the licence holder shall be familiar with all pertinent and current information.

(5) **Validity of ratings:** A rating shall become invalid when an air traffic controller has ceased to exercise the privileges of the rating for a period exceeding six months, and a rating shall remain invalid until the controller's ability to exercise the privileges of the rating has been re-established.;

(২৬) **rule 42** এর পরিবর্তে নিম্নরূপ **rule 42** প্রতিস্থাপিত হইবে, যথা :—

“42. Flight Operations Officer Licence.—(1) Requirements for the issue of the Licence-A person engaged in, or intended to be engaged in any phase of airline flight operations may apply to the Chairman for the grant of a Flight Operations Officer Licence, and the Chairman shall require the applicant for the licence to meet the following requirements:—

- (a) **Age** : the applicant shall be not less than 21 years of age on the date of application;
- (b) **Academic qualification and knowledge** : the applicant shall have passed at least Higher Secondary Certificate (Science) Examination or its equivalent and shall have demonstrated a level of knowledge appropriate to the privileges granted to the holder of a Flight Operations Officer Licence, in at least the following subjects:-

Air Law—

- (i) rules and regulations relevant to the holder of a flight operations officer licence; appropriate air traffic services practices and procedures,

Aircraft general knowledge—

- (ii) principles of operation of aeroplane powerplants, systems and instruments,
- (iii) operation limitations of aeroplane and powerplants,
- (iv) minimum equipment list,

Flight performance calculation and planning procedures—

- (v) effects of loading and mass distribution on aircraft performance and flight characteristics, mass and balance calculations,
- (vi) operational flight planning; fuel consumption and endurance calculations, alternate airport selection procedures; en-route cruise control, extended range operation,

- (vii) preparation and filing of air traffic services flight plans,
- (viii) basic principles of computer-assisted planning systems,
- (ix) aeronautical meteorology, the movement of pressure systems, the structure of fronts, and the origin and characteristics of significant weather phenomena which affect take-off, en-route and landing conditions,
- (x) interpretation and application of aeronautical meteorological reports, charts and forecasts; codes and abbreviations, use of, and procedures for obtaining, meteorological information,

Navigation—

- (xi) principles of air navigation, with particular reference to instrument flight,

Operational procedures—

- (xii) use of aeronautical documentation,
- (xiii) operational procedures for the carriage of freight and dangerous goods,
- (xiv) procedures relating to aircraft accidents and incidents, emergency flight procedures,
- (xv) procedures relating to unlawful interference and sabotage of aircraft,

Principles of flight

- (xvi) principles of flight relating to the appropriate category of aircraft, and

Radio communication—

- (xvii) procedures for communicating with aircraft and relevant ground stations;

(c) **Experience** : the applicant shall have gained the following experience :—

- (i) a total of two years' service in any one or in any combination of the capacities specified in (A) to (C)

inclusive, provided that in any combination of experience the period serviced in any capacity shall be at least one year—

- (A) a flight crew member in air transportation,
- (B) a meteorologist in an organization dispatching aircraft in air transportation, or
- (C) an air traffic controller; or a technical supervisor of flight operations officers or air transportation flight operations systems,

or

- (ii) at least one year as an assistant in the dispatching of air transport,

or

- (iii) have satisfactorily completed a course of approved training,
- (iv) The applicant shall have served under the supervision of a flight operations officer for at least 90 working days within the six months immediately preceding the application;

(d) **Skill:** the applicant shall have demonstrated the ability to-

- (i) make an accurate and operationally acceptable weather analysis from a series of daily weather maps and weather reports, provide an operationally valid briefing on weather conditions prevailing in the general neighborhood of a specific air route, forecast weather trends pertinent to air transportation with particular reference to destination and alternates,
- (ii) determine the optimum flight path for a given segment and create accurate manual and/or computer generated flight plans, and
- (iii) provide operating supervision and all other assistance to a flight in actual or simulated adverse weather conditions as appropriate to the duties of the holder of a Flight Operations Officer Licence.

(2) **Privileges**—The privileges of the holder of a Flight Operations Officer Licence shall be to serve in that capacity with responsibility for each area for which the applicant meets the requirements specified in Part VI.”;

(২৭) rule 46 এর পরিবর্তে নিম্নরূপ rule 46 প্রতিস্থাপিত হইবে যথা ঃ—

"46. **Flight instruction.**—(1) Every aircraft which is being used for the purpose of giving instructions in piloting shall have a dual control and shall carry a person holding an appropriate pilot licence endorsed with Flight Instructor Rating issued in accordance with these Rules.

(2) No person other than a person having a Flight Instructor Rating shall impart instructions in piloting an aircraft.”;

(২৮) rule 49 অবলুপ্ত হইবে;

(২৯) rule 50 অবলুপ্ত হইবে;

(৩০) rule 51 এর পরিবর্তে নিম্নরূপ rule 51 প্রতিস্থাপিত হইবে, যথা ঃ—

"51. **Medical Standards and Assessment.**—(1) **Requirements of Medical Assessment**—No licence or rating referred to in these Rules shall be issued or renewed unless the applicant undergoes a medical examination with approved medical examiners and satisfy the Medical Standards specified in these Rules. The applicant for a Medical Assessment shall undergo a medical examination based on the following requirements:—

(a) **Physical and mental requirements:** an applicant for any class of medical assessment shall be required to be free from—

- (i) any abnormality, congenital or acquired,
- (ii) any active, latent, acute or chronic disability,
- (iii) any wound, injury or squeal from operation, or
- (iv) any effect or side-effect of any prescribed or non prescribed therapeutic medication taken—

such as would entail a degree of functional incapacity which is likely to interfere with the safe operation of an aircraft or with the safe performance of duties;

(b) Visual acuity test requirements: the methods in use for the measurement of visual acuity are likely to lead to differing evaluations, and to achieve uniformity, the following methods shall be adopted for tests of visual acuity:—

- (i) visual acuity test should be conducted in an environment with a level of illumination that corresponds to ordinary office illumination (30-60 cd/m²),
- (ii) visual acuity should be measured by means of a series of Landolt rings or similar optotypes, placed at a distance from the applicant appropriate to the method of testing adopted;

(c) Colour perception requirements: the following methods of examination shall be added for testing of colour perception:—

- (i) the applicant shall be required to demonstrate the ability to perceive readily those colours the perception of which is necessary for the safe performance of duty,
- (ii) the applicant shall be tested for the ability to correctly identify a series of pseudoisochromatic plates in daylight or in artificial light of the same colour temperature as provided by CIE Standard illuminants C or D65 as specified by the International Commission on Illumination (ICI),
- (iii) an applicant obtaining a satisfactory result as prescribed by the Chairman shall be assessed as fit, and applicant failing to obtain a satisfactory result in such a test shall be assessed as unfit unless able to readily distinguish the colours used in air navigation and correctly identify aviation coloured lights; applicants who fail to meet these criteria shall be assessed as unfit except for class 2 assessment with the following restriction; valid day time only,
- (iv) sunglasses worn during the exercise of the privileges of the licence or rating held shall be non-polarizing and of a neutral grey tint;

(d) **Hearing requirements:** Hearing requirements are established in addition to the ear examinations conducted during the medical examination for the physical and mental requirements, and the applicant shall be required to be free from any hearing defect which would interfere with the safe performance of duties in exercising the privileges of the licence; for the purpose of hearing requirements the sound level of an average conversational voice at point of output ranges from 85 to 95 dB.

(2) **Classes of Medical Assessment:** Medical assessments shall be of the following classes:-

(a) **Class 1 Medical Assessment:** Class 1 Medical Assessment shall be applicable to applicants for, and holders of-

- (i) Commercial Pilot Licences for aeroplane and helicopter,
- (ii) Airline Transport Pilot Licence for aeroplane and helicopter,
- (iii) Flight Navigator Licences,
- (iv) Flight Engineer Licences;

(b) **Class 2 Medical Assessment:** Class 2 Medical Assessment shall be applicable to applicants for, and holders of-

- (i) Private Pilot Licences for aeroplane and helicopter,
- (ii) Glider Pilot Licences,
- (iii) Free Balloon Pilot Licences;

(c) **Class 3 Medical Assessment:** Class 3 Medical Assessment shall be applicable to applicants for, and holders of Air Traffic Controller Licences.

(3) **Duration of the Currency of Medical Assessment.**—The duration of the period of currency of a Medical Assessment shall be as specified by the Chairman, and the period of currency shall begin on the date the Medical Assessment is issued.

- (4) **Other Provisions:** (a) the Chairman shall designate medical examiners qualified and licensed in the practice of medicine to conduct medical examinations of fitness of applicants for the issue or renewal of the appropriate licenses or ratings specified in these Rules.
- (b) medical examiners shall have had or shall receive training in aviation medicine and shall acquire practical knowledge and experience of the conditions in which the holders of licences and ratings carry out their duties;
- (c) for medical examination in respect of Aircrew License, Chairman shall normally designate medical examiner(s) from Bangladesh Air Force, and in case of non-availability of appropriately qualified medical examiners from Bangladesh Air Force, Chairman may designate other qualified medical examiners;
- (d) the applicant shall give a personally certified statement of medical facts to the medical examiner(s) concerning his personal, familial and hereditary history;
- (e) the applicant for a licence or rating for which medical fitness has been specified shall sign and furnish to the medical examiner(s) a declaration stating whether he has previously undergone such an examination, and if so, with what result;
- (f) any false declaration to medical examiner(s) made by an applicant for a licence or rating shall be reported to the Chairman for such action as may be considered appropriate;
- (g) having completed the medical examination of the applicant in accordance with the requirements of these Rules the medical examiner shall submit a signed report to the Chairman detailing the results of the examination, and of the medical examination is carried out by a constituted group of medical examiners, Chairman shall appoint the head of the group to be responsible for coordinating the results of the examination and signing the report;

- (h) the medical examiner shall report to the Chairman any individual case where, in the examiner's judgement, an applicant's failure to meet any requirement, whether numerical or otherwise, is such that exercise of the privileges of the licence being applied for, or held is not likely to jeopardize flight safety;
- (i) the medical requirements for renewal of a licence or rating shall be the same as those for initial issue of that licence or rating, except where otherwise specifically stated;
- (j) if the holder of a licence is aware, or has reasonable grounds to suspect, that his physical, aural or eye condition has deteriorated in any respect, even if only temporarily as a result of a common minor ailment, which may be below the standard of medical fitness required for the grant of the licence, he shall not act in any capacity for which he is so licensed until he is satisfied that his condition has been restored to the required standard;
- (k) if the holder of a licence—
 - (i) suffers any personal injury as a result of an accident occurring while he is acting in any capacity for which he is licensed,
 - (ii) suffers any personal injury involving incapacity for work as a result of any accident occurring otherwise than while acting in any capacity for which he is so licensed, or
 - (iii) suffers from any illness involving incapacity for work during twenty days or more, he shall send intimation of the occurrence in writing to the Chairman as soon as possible in the case of accident, and in the case of illness, as soon as the period of twenty days has elapsed;
- (l) the holder of a licence may, after suffering any personal injury or illness referred to in clause (k) be required to undergo a medical examination and shall not resume acting in any capacity for which he is licensed until he has obtained a medical report, detailing the nature of the

injury or illness, the treatment received, the progress made whilst under treatment and his present condition, and such report shall be forwarded to Chairman;

- (m) pregnancy shall be regarded as incapacitating the holder of a licence from carrying out flying duties, and as soon as the pregnancy has been diagnosed the holder of a licence shall cease flying and shall not again fly until she has in due course, been examined and pronounced fit;
- (n) whenever the holder of a licence has performed a total of 125 hours flying in the capacity of a member of the operating crew of an aircraft within any period of thirty consecutive days since his last medical examination under these Rules, he shall not continue to act in that capacity until he has been re-examined and pronounced fit;
- (o) if the medical Standards prescribed in these Rules for a particular licence are not met, the appropriate medical assessment shall not be issued or renewal unless the following conditions are fulfilled:—
 - (i) accredited medical conclusion indicates that in special circumstances the applicant's failure to meet any requirement, whether numerical or otherwise, is such that exercise of the privileges of the licence applied for is not likely to jeopardize flight safety,
 - (ii) relevant ability, skill and experience of the applicant and operational conditions have been given due consideration, and
 - (iii) the licence is endorsed with any special limitation or limitations when the safe performance of the licence holder's duties is dependent on compliance with such limitation or limitations;
- (p) an applicant who does not satisfy the appropriate medical requirements may be accepted by the Chairman as eligible for the grant or renewal of a licence if the licence is to be restricted to flying within Bangladesh, and any licence granted or renewed in accordance with this provision may be subject to such conditions and restrictions as the Chairman may consider appropriate in the particular case;

(q) if an applicant for the renewal of a licence is for the time being on duty as a member of the operating crew of an aircraft in a region far away from the official medical centres, the medical examination which he should normally pass to obtain renewal of the licence may, if the Chairman so directs—

- (i) be deferred once for a period of six months in the case of a member of the operating crew of a private aircraft, or
- (ii) be deferred for a period of three months which may be entered to another period not exceeding three months in the case of a member of the operating crew of a public transport or aerial work aircraft on condition that such member obtains locally in each case and forwards to the Chairman a medical certificate from a registered practitioner in modern medicine declaring his medical fitness in accordance with the Medical Standards specified in these Rules.";

(৩১) rule 52 এর পরিবর্তে নিম্নরূপ rule 52 প্রতিস্থাপিত হইবে, যথাঃ—

"52. **Class 1 Medical Assessment.**— (1) Assessment, issue and renewal (a) an applicant for a Commercial Pilot Licence for aeroplane or helicopter, an Airline Transport Pilot Licences for aeroplane or helicopter, a Flight Engineer Licence or a flight Navigator Licence shall undergo an initial medical examination for the issue of a Class 1 Medical Assessment ;

(b) except where otherwise stated in these rules, holders of a Commercial Pilot Licences for aeroplane or helicopter, Airline Transport Pilot Licences for aeroplane or helicopter, Flight Engineer Licence or Flight Navigator Licence shall have their Class 1 Medical Assessments renewed at intervals specified in rule 51 (3) ;

(c) when the Chairman is satisfied that the requirements under these Rules have been met, a Class 1 Medical Assessment shall be issued to the applicant.

(2) **Physical and mental requirements.**—For the purpose of physical and mental assessments, the medical examination of an applicant shall be based on the following requirements :

- (a) the applicant shall not suffer from any disease or disability which could render that applicant likely to become suddenly unable either to operate an aircraft safely or to perform assigned duties safely ;
- (b) the applicant shall have no established medical history or clinical diagnosis of—
 - (i) a psychosis ;
 - (ii) alcoholism ;
 - (iii) drug dependence ;
 - (iv) any personality disorder, particularly if severe enough to have repeatedly resulted in overt acts, or
 - (v) a mental abnormality, or neurosis of a significant degree, which might render the applicant unable to safely exercise the privileges of the licence applied for or held, unless accredited medical conclusion indicates that in special circumstances, the applicant's failure to meet the requirement is such that exercise of the privileges of the licence applied for is not likely to jeopardize flight safety ; the history of acute toxic psychosis need not be regarded as disqualifying, provided that the applicant has suffered no permanent impairment ;
- (c) the applicant shall have no established medical history or clinical diagnosis of any of the following :
 - (i) a progressive or non-progressive disease of the nervous system, the effects of which, according to accredited medical conclusion, are likely to interfere with the safe exercise of the applicant's licence and rating privileges,
 - (ii) epilepsy, or
 - (iii) any disturbance of consciousness without satisfactory medical explanation of cause ;

- (d) cases of head injury, the effects of which, according to accredited medical conclusion, are likely to interfere with the safe exercise of the applicant's licence and rating privileges shall be assessed as unfit;
- (e) the applicant shall not possess any abnormality of the heart, congenital or acquired which is likely to interfere with the safe exercise of the applicant's licence and rating privileges ; a history of proven myocardial infarction shall be disqualifying, and commonly occurring conditions as respiratory arrhythmia, occasional extra systoles which disappear on exercise, increase of pulse rate from excitement or exercise, or a slow pulse not associated with auriculoventricular dissociation may be regarded as being within "normal" limits. electrocardiography shall form part of the heart examination for the first issue of a licence and shall be included in re-examinations of applicants between the ages of 30 and 40 no less frequently than every two years, and thereafter no less frequently than annually ;
- (f) the systolic and diastolic blood pressures shall be within normal limits; the use of drugs for control of high blood pressure is disqualifying except for those drugs the use of which, according to accredited medical conclusion, is compatible with the safe exercise of the applicant's licence and rating privileges;
- (g) there shall be no significant functional nor structural abnormality of the circulatory tree;
- (h) there shall be no acute disability of the lunge nor any active disease of the structures of the lungs, mediastinum or pleura. Radiography shall form a part of the medical examination in all doubtful clinical cases;
- (i) any extensive mutilation of the chest wall with collapse of the thoracic cage and squeal of surgical procedures resulting in decreased respiratory efficiency at altitude shall be assessed as unfit; cases of pulmonary emphysema should be assessed as unfit if the condition is causing symptoms;

- (j) cases of active pulmonary tuberculosis duly diagnosed shall be assessed as unfit and cases of quiescent or healed lesions which are known to be tuberculous, or are presumably tuberculous in origin, may be assessed as fit; cases of pulmonary emphysema should be assessed as unfit if the condition is causing symptoms ;
- (k) cases of disabling disease with important impairment of function of the gastrointestinal tract or its adnexae shall be assessed as unfit ;
- (l) the applicant shall be required to be completely free from those hernias that might give rise to incapacitating symptoms ;
- (m) any sequelae of disease or surgical intervention on any part of the digestive tract or its adnexae, likely to cause incapacity in flight, in particular any obstructions due to stricture or compression shall be assessed as unfit ; an applicant who has undergone a major surgical operation on the biliary passages or the digestive tract or its adnexae which has involved a total or partial excision or a diversion of any of these organs should be assessed as unfit until such time as the medical authority designated for the purpose by the Chairman and having access to the details of the operation concerned considers that the effects of the operation are not likely to cause incapacity in the air ;
- (n) cases of metabolic, nutritional or endocrine disorder likely to interfere with the safe exercise of the applicant's licence and rating privileges shall be assessed as unfit ;
- (o) proven cases of diabetes mellitus shown to be satisfactorily controlled without the use of any anti-diabetic drug, may be assessed as fit ;
- (p) cases for severe and moderate enlargement of the spleen persistently below the costal margin shall be assessed as unfit ;

- (q) cases of significant localized and generalized enlargement of the lymphatic glands and of diseases of the blood shall be assessed as unfit, except in cases where accredited medical conclusion indicates that the condition is not likely to affect the safe exercise of the applicant's licence and rating privileges ; possession of the sickle cell trait should not be a reason for disqualification unless there is positive medical evidence to the contrary, and these cases due to a transient condition should be assessed as only temporarily unfit;
- (r) cases presenting any signs of organic disease of the kidney shall be assessed as unfit, and those due to a transient condition may be assessed as temporarily unfit; the urine shall contain no abnormal element considered by the medical examiner to be of pathological significance, and cases of affections of the urinary passages and of the genital organs shall be assessed as unfit, and those due to a transient condition may be assessed as temporarily unfit;
- (s) any sequelae of disease or surgical procedures on the kidneys and the urinary tract likely to cause incapacity, in particular any obstructions due to stricture or compression, shall be assessed as unfit, and Compensated nephrectomy without hypertension or uraemia may be assessed as fit. However, an applicant who has undergone a major surgical on the urinary system which has involved a total or partial excision or a diversion of any of its organs shall be assessed as unfit until such time as the medical authority designated for the purpose by the Chairman and having access to the details of the operation concerned considers that the effects of the operation are not likely to cause incapacity in the air;
- (t) an applicant for the first issue of a licence who has a personal history of syphilis shall be required to furnish evidence, satisfactory to the medical examiner, that the applicant has undergone adequate treatment ;

- (u) an applicant who has a history of severe menstrual disturbances that has proved unamenable to treatment and that are likely to interfere with the safe exercise of the applicant's licence and rating privileges shall be assessed as unfit ; and applicant who has undergone gynaecological operations should be considered individually ;
- (v) pregnancy shall be a cause of temporary unfitness, following confinement or termination of pregnancy, the applicant shall not be permitted to exercise the privileges of her licence until she has undergone re-examination and has been assessed as fit ;
- (w) any active disease of the bones, joints, muscles or tendons and all serious functional sequelae of congenital or acquired disease shall be assessed as unfit ; functional after-effects of lesion affecting the bones, joints, muscles or tendons and certain anatomical defects compatible with the safe exercise of the applicant's licence and rating privileges may be assessed as fit ;
- (x) there shall be—
- (i) no active pathological process, acute or chronic, of the internal ear or of the middle ear,
 - (ii) no unhealed (unclosed) perforation of the tympanic membranes ; a single dry perforation need not render the applicant unfit ; licences shall not be issued or renewed in these circumstances unless the appropriate hearing requirements as per Rule 52 (4) are complied with,
 - (iii) no permanent obstruction of the Eustachian tubes,
 - (iv) no permanent disturbances of the vestibular apparatus ; transient conditions may be assessed as temporarily unfit ;
- (y) there shall be free nasal air entry on both sides ; there shall neither be any serious malformation nor serious, acute or chronic affection of the buccal cavity or upper respiratory tract ; cases of speech defects and stuttering shall be assessed as unfit.

(3) **Visual requirements.**—For the purpose of visual assessment, the medical examination of an applicant shall be based on the following requirements :—

- (a) the function of the eyes and their adnexae shall be normal ; there shall be no active pathological condition, acute or chronic, of either eye or adnexae which is likely to interfere with its proper function to an extent that would interfere with the safe exercise of the applicant's licence and rating privileges ;
- (b) distant visual acuity with or without correction shall be 6/9 or better in each eye separately, and binocular visual acuity shall be 6/6 or better ; no limits apply only to uncorrected visual acuity, and where this standard of visual acuity can be obtained only with correcting lenses, the applicant may be assessed as fit provided that—
 - (i) the correcting lenses are worn during the privileges of the licence or rating applied for or held, and
 - (ii) in addition, a pair of a suitable correcting spectacles is kept readily available during the exercise of the privileges of the applicant's licence ;
- (c) applicants may use contact lenses to meet this requirement provided that—
 - (i) the lenses are monofocal and non-tinted,
 - (ii) the lenses are well tolerated, and
 - (iii) a pair of suitable correcting spectacles is kept readily available during the exercise of the licence privileges ;
- (d) applicants with a large refractive error shall use contact lenses or high-index spectacle lenses ; if spectacles are used, high-index lenses are needed to minimize peripheral field distortion ;
- (e) applicants whose uncorrected distant visual acuity in either eye is worse than 6/60 shall be required to provide a full ophthalmic report prior to initial Medical Assessment and every five years thereafter ;

- (f) applicants who have undergone surgery affecting the refractive status of the eye shall be assessed as unfit unless they are free from those sequelae which are likely to interfere with the safe exercise of their licence and rating privileges ;
- (g) (i) the applicant shall have the ability to read, while wearing the correcting lenses, if any, required by rule 52 (3) (b), the N5 chart or its equivalent at a distance selected by that applicant in the range of 30 to 50 cm and the ability to read the N14 chart or its equivalent at a distance of 100 cm ; if this requirement is met only by the use of near correction, the applicant may be assessed as fit provided that this near correction is added to the spectacle correction already prescribed in accordance with rule 52 (3) (b) ; if no such correction is prescribed, a pair of spectacles for near use shall be kept readily available during the exercise of the privileges of the licenses,
- (ii) when near correction is required, the applicant shall demonstrate that one pair of spectacles is sufficient to meet both distant and near visual requirements ; an applicant who needs near correction to meet this requirement will require "look-over", bifocal or perhaps multifocal lenses in order to read the instruments and a chart or manual held in the hand, and also to make use of distant vision, through the windscreen, without removing the lenses ; single-vision near correction (full lenses of one power only, appropriate for reading) significantly reduces distant visual acuity and is therefore not acceptable,
- (iii) whenever there is a requirement to obtain or renew correcting lenses, an applicant shall advise the refractionist of reading distances for the visual flight desk tasks relevant to the types of aircraft in which the applicant is likely to function ;
- (h) when near correction is required a second pair of near-correction spectacles shall be kept available for immediate use,
- (i) the applicant shall be required to have normal fields of vision ;
- (j) the applicant shall be required to have normal binocular function.

(4) **Hearing requirements.**— For the purpose of hearing assessment, the medical examination of an applicant shall be based on the following requirements :—

(a) the applicant, tested on a pure-tone audiometer at first issue of licence, not less than once every five years up to the age of 40 years, and thereafter not less than once every three years, shall not have a hearing loss, in either ear separately, of more than 35 dB at any of the frequencies 500, 1000 or 2000 Hz, or more than 50 dB at 3000 Hz ; an applicant with a hearing loss greater than this may be declared fit provided that—

(i) the applicant has a hearing performance in each ear separately equivalent to that of a normal person against a background noise that will simulate the masking properties of flight deck noise upon speech and beacon signals, and

(ii) the applicant has the ability to hear an average conversational voice in a quiet room, using both ears, at a distance of 2 m from the examiner, with the back turned to the examiner;

(b) alternatively, other methods providing equivalent results to those specified in rule 52(4)(a) shall be used;

(৩২) **rule 53** এর পরিবর্তে নিম্নরূপ **rule 53** প্রতিস্থাপিত হইবে, যথা :—

"53. **Class 2 Medical Assessment.**— (1) **Assessment, issue and renewal:** (a) an applicant for a Private Pilot Licence for aeroplane or helicopter, a Glider Pilot Licence or a Free Balloon Pilot Licence shall undergo an initial medical examination for the issue of a Class 2 Medical Assessment;

(b) except where otherwise stated in these Rules, holders of a Private Pilot Licence for aeroplane or helicopter, a Glider Pilot Licence or Free Balloon Pilot Licence shall have their Class 2 Medical Assessment renewed at intervals not exceeding those specified in rule 51(3);

(c) when the Chairman is satisfied that the requirements of these Rules have been met, a Class 2 Medical Assessment shall be issued to the applicant.

(2) **Physical and mental requirements:** For the purpose of physical and mental requirements the medical examination of an applicant shall be based on the following requirements:-

- (a) the applicant shall not suffer from any disease or disability which could render that applicant likely to become suddenly unable either to operate an aircraft safely or to perform assigned duties safely;
- (b) the applicant shall have no established medical history or clinical diagnosis of—
 - (i) a psychosis,
 - (ii) alcoholism,
 - (iii) drug dependence,
 - (iv) any personality disorder, particularly if severe enough to have repeatedly resulted in overt acts, or
 - (v) a mental abnormality, or neurosis of a significant degree which might render the applicant unable to safely exercise the privileges of the licence applied for or held, unless accredited medical conclusion indicates that in special circumstances, the applicant's failure to meet the requirement is such that exercise of the privileges of the licence applied for is not likely to jeopardize flight safety; a history of acute toxic psychosis need not be regarded as disqualifying provided that the applicant has suffered no permanent impairment;
- (c) the applicant shall have no established medical history or clinical diagnosis of any of the following-
 - (i) a progressive or non-progressive disease of the nervous system, the effects of which, according to accredited medical conclusion, are likely to interfere with the safe exercise of the applicant's licence and rating privileges,

- (ii) epilepsy, or
- (iii) any disturbance of consciousness without satisfactory medical explanation of cause;
- (d) cases of head injury, the effects of which, according to accredited medical conclusion, are likely to interfere with the safe exercise of the applicant's licence and rating privileges shall be assessed as unfit;
- (e) the applicant shall not possess any abnormality of the heart, congenital or acquired which is likely to interfere with the safe exercise of the applicant's licence and rating privileges; a history of proven myocardial infraction shall be disqualifying. commonly occurring conditions such as respiratory arrhythmia, occasional extrasystoles which disappear on exercise, increase of pulse rate from excitement or exercise, or a slow pulse not associated with auriculoventricular dissociation may be regarded as being within "normal" limits. Electrocardiography shall form part of the heart examination for the first issue of a licence and shall be included in re-examinations of applicants between the ages of 30 and 40 no less frequently than every two years, and thereafter no less frequently than annually;
- (f) the systolic and diastolic blood pressures shall be within normal limits; the use of drugs for control of high blood pressure is disqualifying except for those drugs, the use of which, according to accredited medical conclusion, is compatible with the safe exercise of the applicant's licence and rating privileges;
- (g) there shall be no significant functional nor structural abnormality of the circulatory tree; the present of varicosities does not necessarily entail unfitness;
- (h) there shall be no acute disability of the lungs nor an active disease of the structures of the lungs, mediastinum or pleura. Radiography shall form a

part of the initial medical examination, repeated periodically thereafter and in all doubtful clinical cases;

- (i) any extensive mutilation of the chest wall with collapse of the thoracic cage and sequelae of surgical procedures resulting in decreased respiratory of surgical procedures resulting in decreased respiratory efficiency at altitude shall be assessed as unfit; cases of pulmonary emphysema should be assessed as unfit only if the condition is causing symptoms;
- (j) cases of active pulmonary tuberculosis, duly diagnosed, shall be assessed as unfit; cases of quiescent or healed lesions which are known to be tuberculous, or are presumably tuberculous in origin, may be assessed as fit;
- (k) cases of disabling disease with important impairment of function of the gastrointestinal tract or its adnexae shall be assessed as unfit;
- (l) the applicant shall be required to be completely free from those hernias that might give rise to incapacitating symptoms;
- (m) any sequelae of disease or surgical intervention on any part of the digestive tract or its adnexae, likely to cause incapacity in flight, in particular any obstruction due to stricture or compression shall be assessed as unfit; an applicant who has undergone a major surgical operation on the biliary passages or the digestive tract or its adnexae, which has involved a total or partial excision or a diversion of any of these organs should be assessed as unfit until such time as the medical authority designated for the purpose by the Chairman and having access to the details of the operation concerned considers that the effects of the operation are not likely to cause incapacity in the air;

- (n) cases of metabolic, nutritional or endocrine disorders likely to interfere with the safe exercise of the applicant's licence and rating privileges shall be assessed as unfit;
- (o) proven cases of diabetes mellitus shown to be satisfactorily controlled without the use of any anti-diabetic drugs, may be assessed as fit; the use of anti-diabetic drugs for the control of diabetes mellitus is disqualifying except for those oral drugs administered under conditions permitting appropriate medical supervision and control and which, according to accredited medical conclusion, are compatible with the safe exercise of the applicant's licence and rating privileges;
- (p) cases of significant localized and generalized enlargement of the lymphatic glands and of diseases of the blood shall be assessed as unfit, except in cases where accredited medical conclusion indicates that the condition is not likely to affect the safe exercise of the applicant's licence and rating privileges; possession of the sickle cell trait shall not be a reason for disqualification unless there is positive medical evidence to the contrary; cases due to a transient condition should be assessed as only temporarily unfit;
- (q) cases presenting any signs of organic disease of the kidney shall be assessed as unfit, and those due to a transient condition may be assessed as temporarily unfit the urine shall contain no abnormal element considered by the medical examiner to be of pathological significance, and cases of infection of the urinary passages and of the genital organs shall be assessed as unfit; those due to a transient condition may be assessed as temporarily unfit;
- (r) any sequelae of disease or surgical procedures on the kidneys and the urinary tract likely to cause incapacity, in particular any obstructions due to stricture or compression, shall be assessed as unfit, compensated nephrectomy without hyper-tension

or uraemia may be assessed as fit; an applicant who has undergone a major surgical operation on the urinary system which has involved a total or partial excision or a diversion of any of its organs shall be assessed as unfit until such time as the medical authority designated for the purpose by the Chairman and having access to the details of the operation concerned considers that the effects of the operation are not likely to cause incapacity in the air.

- (s) an applicant for the first issue of a licence who has a personal history of syphilis shall be required to furnish evidence, satisfactory to the medical examiner, that the applicant has undergone adequate treatment.
- (t) an applicant who has a history of severe menstrual disturbances that has proved unamenable to treatment and that are likely to interfere with the safe exercise of the applicant's licence and rating privileges shall be assessed as unfit; an applicant who has undergone gynaecological operations shall be considered individually;
- (u) pregnancy shall be a cause of temporary unfitness; following confinement or termination of pregnancy, the applicant shall not be permitted to exercise the privileges of her licence until she has undergone re-examination and has been assessed as fit;
- (v) any active disease of the bones, joints, muscles or tendons and all serious functional sequelae of congenital or acquired disease shall be assessed as unfit; certain qualifying functional after-effects of lesion affecting the bones, joints, muscles or tendons and certain anatomical defects compatible with the safe exercise of the applicant's licence and rating privileges may be assessed as applicant's licence and rating privileges may be assessed as fit;
- (w) there shall be—
 - (i) no active pathological process, acute or chronic, of the internal ear or of the middle ear,

- (ii) no permanent disturbances of the vestibular apparatus; transient conditions may be assessed as temporarily unfit;
- (x) there shall be no serious malformation nor serious, acute or chronic affection of the buccal cavity or upper respiratory tract.

(3) visual requirements.—For the purposes of the visual assessment, the medical examination of an applicant shall be based on the following requirements:—

- (a) the function of the eyes and their adnexae shall be normal; there shall be no active pathological condition, acute or chronic, nor any sequelae of surgery or trauma of the eyes or their adnexae likely to reduce proper visual function to an extent that would interfere with the safe exercise of the applicant's licence and rating privileges;
- (b) distant visual acuity with or without correction shall be 6/12 or better in each eye separately, and binocular visual acuity shall be 6/9 or better; no limits apply to uncorrected visual acuity; when this standard of visual acuity can be obtained only with correcting lenses, the applicant may be assessed as fit provided that:
 - (i) such correcting lenses are worn during the exercise of the privileges of the licence or rating applied for or held, and
 - (ii) in addition, a pair of a suitable correcting spectacles is kept readily available during the exercise of the privileges of the applicant's licence;
- (c) an applicant may use contact lenses to meet this requirement provided that:
 - (i) the lenses are monofocal and non-tinted,
 - (ii) the lenses are well tolerated, and
 - (iii) a pair of suitable correcting spectacles is kept readily available during the exercise of the licence privileges;

- (d) applicants with a large refractive error shall use contact lenses or high-index spectacle lenses; if spectacles are used, high-index lenses are needed to minimize peripheral field distortion;
- (e) applicants whose uncorrected distant visual acuity in either eye is worse than 6/60 shall be required to provide a full ophthalmic report prior to initial Medical Assessment and every five years thereafter;
- (f) applicants who have undergone surgery affecting the refractive status of the eye shall be assessed as unfit unless they are free from those sequelae which are likely to interfere with the safe exercise of their licence and rating privileges;
- (g) the applicant shall have the ability to read while wearing the correcting lenses, if any, required by rule 53(3)(b), the N5 chart or its equivalent at a distance selected by that applicant in the range of 30 to 50 cm. and if this requirement is met only by the use of near correction, the applicant may be assessed as fit provided that this near correction is added to the spectacle correction already prescribed in accordance with rule 53(3)(b); if no such correction is prescribed, a pair of spectacles for near use shall be kept readily available during the exercise of the privileges of the licence; when near correction is required, the applicant shall demonstrate that one pair of spectacles is sufficient to meet both distant and near visual requirements;
- (h) an applicant who needs near correction to meet this requirement will require "look-over", bifocal or perhaps multifocal lenses in order to read the instruments and a chart or manual held in the hand, and also to make use of distant vision, through the windscreen, without removing the lenses. single-vision near correction (full lenses of one power only, appropriate for reading) significantly reduces distant visual acuity and is therefore not acceptable, whenever there is a requirement to obtain or renew correcting lenses, an applicant shall advise the refractionist of

reading distances for the visual flight desk tasks relevant to the types of aircraft in which the applicant is likely to function;

- (i) when near correction is required a second pair of near-correction spectacles shall be kept available for immediate use;
- (j) the applicant shall be required to have normal fields of vision;
- (k) the applicant shall be required to have normal binocular function.

(4) **Hearing requirements.**—For the purpose of hearing assessment, the medical examination shall be based on the following requirements:—

the applicant shall be able to hear an average conversational voice in a quiet room, using both ears, at a distance of 2 m from the examiner, with the back turned to the examiner.”;

(৩৩) rule 54 এর পরিবর্তে নিম্নরূপ rule 54 প্রতিস্থাপিত হইবে, যথাঃ—

“54. **Class 3 Medical Assessment.**—(1) **Assessment issue and renewal.**— (a) an applicant for an air Traffic Controller Licence shall undergo an initial medical examination for the issue of a Class 3 Medical Assessment;

(b) except where otherwise stated in this rules, holders of an Air Traffic Controller Licence shall have their Class 3 Medical Assessments renewed at intervals not exceeding those specified in rule 51(3) of these Rules.

(c) when the Chairman is satisfied that the requirements of these Rules have been met, a Class 3 Medical Assessment shall be issued to the applicant.

(2) **Physical and mental requirements.**— For the purpose of physical and mental assessments the medical examination of an applicant shall be based on the following requirements:-

- (a) the applicant shall not suffer from any disease or disability which could render that applicant likely to become suddenly unable to perform duties safely;

- (b) the applicant shall have no established medical history or clinical diagnosis of—
- (i) a psychosis,
 - (ii) alcoholism,
 - (iii) drug dependence,
 - (iv) any personality disorder, particularly if severe enough to have repeatedly resulted in overt acts, or
 - (v) a mental abnormality, or neurosis of a significant degree which might render the applicant unable to safely exercise the privileges of the licence applied for unless accredited medical conclusion indicates that in special circumstances, the applicant's failure to meet the requirement is such that exercise of the privileges of the licence applied for is not likely to jeopardize flight safety; a history of acute toxic psychosis need not be regarded as disqualifying provided that the applicant has suffered no permanent impairment;
- (c) the applicant shall have no established medical history of clinical diagnosis of any of the following :—
- (i) a progressive or non-progressive disease of the nervous system, the effects of which, according to accredited medical conclusion, are likely to interfere with the safe exercise of the applicant's licence and rating privileges,
 - (ii) epilepsy, or
 - (iii) any disturbance of consciousness without satisfactory medical explanation of cause;
- (d) cases of dead injury, the effects of which, according to accredited medical conclusion, are likely to interfere with the safe exercise of the applicant's licence privileges shall be assessed as unfit;
- (e) the applicant shall not possess any abnormality of the heart, congenital or acquired which is likely to interfere with the safe exercise of the applicant's

licence privileges; an applicant indicated by accredited medical conclusion to have made a satisfactory recovery from myocardial infraction may be assessed as fit, and such commonly occurring conditions as respiratory arrhythmia, occasional extrasystoles which disappear on exercise, increase of pulse rate from excitement or exercise, or a slow pulse not associated with auriculoventricular dissociation may be regarded as being within "normal" limits; Electrocardiography shall form part of the heart examination for the first issue of a licence, at the first re-examinations after the age of 40 and thereafter no less frequently than every five years, and in re-examination in all doubtful cases;

- (f) the systolic and diastolic blood pressures shall be within normal limits; the use of drugs for control of high blood pressure is disqualifying except for those drugs, the use of which, according to accredited medical conclusion is compatible with the safe exercise of the applicant's licence privileges;
- (g) there shall be no significant functional not structural abnormality of the circulatory tree; the presence of varicosities does not necessarily entail unfitness;
- (h) there shall be no acute disability of the lungs nor any active disease of the structures of the lungs, mediastinum or pleura; Radiography shall form a part of the initial medical examination in all doubtful clinical cases and shall be repeated periodically thereafter; cases of pulmonary emphysema shall be assessed as unfit only if the condition is causing symptoms;
- (i) cases of active pulmonary tuberculosis, duly diagnosed, shall be assessed as unfit, and cases of quiescent or healed lesions which are known to be tuberculous, or are presumably tuberculous in origin, may be assessed as fit;

- (j) cases of disabling disease with important impairment of function of the gastrointestinal tract or its adnexae shall be assessed as unfit;
- (k) the applicant shall be required to be completely free from those hernias that might give rise to incapacitating symptoms;
- (l) any sequelae of disease or surgical intervention on any part of the digestive tract or its adnexae, liable to cause incapacity, in particular any obstructions due to stricture or compression shall be assessed as unfit;
- (m) cases of metabolic, nutritional or endocrine disorders likely to interfere with the safe exercise of the applicant's licence privileges shall be assessed as unfit;
- (n) proven cases of diabetes mellitus shown to be satisfactorily controlled without the use of any anti-diabetic drug may be assessed as fit; the use of anti-diabetic drugs for the control of diabetes mellitus is disqualifying except for those oral drugs administered under conditions permitting appropriate medical supervision and control and which, according to accredited medical conclusion, are compatible with the safe exercise of the applicant's licence privileges;
- (o) cases of significant localized and generalized enlargement of the lymphatic glands and of diseases of the blood shall be assessed as unfit, except in cases where accredited medical conclusion indicates that the condition is not likely to affect the safe exercise of the applicant's licence privileges, cases due to a transient condition should be assessed as only temporarily unfit;
- (p) cases presenting any signs of organic disease of the kidney shall be assessed as unfit, and those due to a transient condition may be assessed as temporarily unfit; the urine shall contain no abnormal element considered by the medical

examiner to be of pathological significance; cases of affections of the urinary passages and of the genital organs shall be assessed as unfit, and those due to a transient condition may be assessed as temporarily unfit;

- (q) any sequelae of disease or surgical procedures on the kidneys and the urinary tract liable to cause incapacity, in particular any obstructions due to stricture or compression, shall be assessed as unfit. compensated nephrectomy without hypertension or uraemia may be assessed as fit;
- (r) an applicant for the first issue of a licence who has a personal history of syphilis shall be required to furnish evidence, satisfactory to the medical examiner, that the applicant has undergone adequate treatment;
- (s) an applicant who has a history of severe menstrual disturbances that have proved unamenable to treatment and that are likely to interfere with the safe exercise of the applicant's licence privileges shall be assessed as unfit;
- (t) any active disease of the bones, joints, muscles or tendons and all serious functional sequelae of congenital or acquired disease shall be assessed as unfit; functional after-effects of lesion affecting the bones, joints, muscles or tendons and certain anatomical defects compatible with the safe exercise of the applicant's licence privileges may be assessed as fit;
- (u) there shall be—
 - (i) no active pathological process, acute or chronic, of the internal ear or of the middle ear, or
 - (ii) no permanent disturbances of the vestibular apparatus. Transient conditions may be assessed as temporarily unfit;

- (v) there shall be no serious malformation nor serious, acute or chronic affection of the buccal cavity or upper respiratory tract. cases of speech defects and stuttering shall be assessed as unfit.

(3) **visual requirements.**—For the purpose of the visual assessment the medical examination of an applicant shall be based on the following requirements:—

- (a) the function of the eyes and their adnexae shall be normal; there shall be no active pathological condition, acute or chronic, nor any sequelae of surgery or trauma of the eyes or their adnexae likely to reduce proper visual function to an extent that would interfere with the safe exercise of the applicant's licence and rating privileges;
- (b) distant visual acuity with or without correction shall be 6/9 or better in each eye separately, and binocular visual acuity shall be 6/6 or better; no limits apply to uncorrected visual acuity, and where this standard of visual acuity can be obtained only with correcting lenses, the applicant may be assessed as fit provided that :
- (i) such correcting lenses are worn during the exercise of the privileges of the licence or rating applied for or held, and
- (ii) in addition, a pair of a suitable correcting spectacles is kept readily available during the exercise of the privileges of the applicant's licence;
- (c) applicant may use contact lenses to meet this requirement provided that:
- (i) the lenses are monofocal and non-tinted,
- (ii) the lenses are well tolerated, and
- (iii) a pair of suitable correcting spectacles is kept readily available during the exercise of the licence privileges;

- (d) applicants with a large refractive error shall use contact lenses or high-index spectacle lenses; if spectacles are used, high-index lenses are needed to minimize peripheral field distortion.
- (e) applicants, whose uncorrected distant visual acuity in either eye is worse than 6/60, shall be required to provide a full ophthalmic report to initial Medical Assessment and every five years thereafter;
- (f) applicants who have undergone surgery affecting the refractive status of the eye shall be assessed as unfit unless they are free from those sequelae which are likely to interfere with the safe exercise of their licence and rating privileges;
- (g) the applicant shall have the ability to read while wearing the correcting lenses, if any, required by rule 54(3)(b), the N5 chart or its equivalent at a distance selected by that applicant in the range of 30 to 50 cm and the ability to read the N14 chart or its equivalent at a distance of 100 cm; if this requirement is met only by the use of near correction, the applicant may be assessed as fit provided that this near correction is added to the spectacle correction already prescribed in accordance with rule 54(3)(b), and if no such correction is prescribed, a pair of spectacles for near use shall be kept readily available during the exercise of the privileges of the licences; when near correction is required, the applicant shall demonstrate that one pair of spectacles is sufficient to meet both distant and near visual requirements; an applicant who needs near correction to meet this requirement will require "look-over", bifocal or perhaps lenses in order to read radar screens, visual displays and written or printed material and also to make use of distant vision, through the windows, without removing the lenses. single-vision near correction (full lenses of one power only, appropriate for reading) may be acceptable for certain air traffic control duties; it should be realized that; single-vision near

correction significantly reduces distant visual acuity, and whenever there is a requirement to obtain or renew correcting lenses, and applicant is expected to advise the refractionist of reading distances for the air traffic control duties the applicant is likely to perform;

- (h) when near correction is required in accordance with this paragraph, a pair of near-correction spectacles shall be kept available for immediate use;
- (i) the applicant shall be required to have normal fields of vision;
- (j) the applicant shall be required to have normal binocular function; defence stereopsis, abnormal convergence not interfering with near vision, and acular misalignment where fusional reserves are sufficient to prevent asthenopia and diplopia may not be disqualifying.

(4) Hearing requirements.—For the purpose of hearing assessment the medical examination of an applicant shall be based on the following requirements:—

- (a) the applicant, tested on a pure-tone audiometer at first issue of licence, not less than once every five years up to the age of 40 years, and thereafter not less than once every three years, shall not have a hearing loss in either ear separately, of more than 35 dB at any of the frequencies 500, 1 000 or 2000 H_z , or more than 50 dB at 3 000 H_z ; an applicant with a hearing loss greater than the above may be declared fit provided that:
 - (i) the applicant has a hearing performance in each ear separately equivalent to that of a normal person, against a background noise that will simulate that experienced in a typical air traffic control working environment; and
 - (ii) the applicant has the ability to hear an average conversational voice in a quiet room, using both ears, at a distance of 2 m from the examiner, with the back turned to the examiner;

(b) alternatively, other methods providing equivalent results to those specified in the rule 54(4)(a) shall be used.”;

(৩৪) **rule 55** এর পরিবর্তে নিম্নরূপ **rule 55** প্রতিস্থাপিত হইবে, যথা :—

“55. **Checks, Tests and Examinations**—For the purpose of these Rules, Chairman may—

- (a) conduct examinations specified in these Rules, appoint invigilators and lay down the procedure for conducting the examinations;
- (b) appoint examiner for carrying out flying tests and technical examinations; and
- (c) determine the manner in which the proficiency checks shall be carried out and may approve check pilots and examiners for this purpose.”;

(৩৫) **rule 56** এর পরিবর্তে নিম্নরূপ **rule 56** প্রতিস্থাপিত হইবে, যথা :—

“56. **Fees and other charges relating to licences**—The fees for the issue, renewal, validation or revalidation of Licences and Rating or technical examination and official medical examination in connection therewith or the issue of duplicate licences and rating shall be as specified by the Chairman through Air Navigation Orders”; এবং

(৩৬) **rule 57** এর পরিবর্তে নিম্নরূপ **rule 57** প্রতিস্থাপিত হইবে, যথা :—

“57. **Logbooks, logging procedure and crediting of flight time**—(1) Every crew member under these rules shall maintain a personal logbook in which all flight times shall be logged in the form and manner specified by the Chairman.

(2) All entries in logbooks shall be made in ink.

(3) Unless otherwise specified, logbooks shall be preserved.

(4) Every flight crew member shall certify the accuracy of the entries in his logbook with respect of flight time at least at the end of each calendar month. The pilot-in-

command, during dual instruction shall certify entries with respect to flight time. At the end of each quarter in a year, that is, at the end of March, June, September and December; logbooks shall be certified for correctness of entries therein, as:

- (a) in the case of commercial pilots and other crew members by the competent authorities of the operator concerned as approved by the Chairman;
 - (b) in the case of members of the flying schools, by the Chief Flying Instructor; and
 - (c) in the case of other persons, by such officers of the Civil Aviation Authority as may be designated by the Chairman.
- (5) A student pilot or the holder of a pilot licence shall be entitled to be credited in full with all solo, dual instruction and pilot-in-command flight time towards the total flight time required for the initial issue of a pilot licence or the issue of a higher grade of pilot licence.
- (6) The holder of a pilot licence, when acting as co-pilot of an aircraft required to be operated with a co-pilot, shall be entitled to be credited with 50 per cent of the co-pilot flight time towards the total flight time required for a higher grade of pilot licence.
- (7) The holder of a pilot licence, when acting as co-pilot performing under the supervision of the pilot-in-command the functions and duties of a pilot-in-command, shall be entitled to be credited in full with this flight time towards the total flight time required for a higher grade of pilot licence.
- (8) A pilot who acts as Examiner or Check pilot may log the flight time as pilot-in-command during which he so acts, provided he is entitled and authorised to fly as a pilot-in-command of that type aircraft by virtue of his ratings and privileges.

- (9) A Flight Navigator shall log the flight time during he is engaged in actual navigational duties. Actual navigational duties under supervision of a licensed flight navigator shall be logged as a flight navigator with the indication "under supervision" in the remarks column.
- (10) A Flight Engineer shall log the flight time during which he is engaged in actual flight engineer's duties. Actual flight engineer's duties under supervision of a licensed flight engineer shall be logged as a flight engineer with indication "under supervision" in the remarks column."

রাষ্ট্রপতির আদেশক্রমে
মোঃ শফিকুল ইসলাম
ভারপ্রাপ্ত সচিব।