



GOVERNMENT OF MALAWI
MALAWI ENGINEERING INSTITUTION

(Malawi Engineering Institution Act, 2019)



ENGINEERING REGISTRATION COUNCIL

**NOTES FOR GUIDANCE OF REGISTERED GRADUATE ENGINEER CANDIDATES
PREPARING FOR AND ATTENDING ENGINEERING QUALIFYING EXAMINATION**

1. Objects

- 1.1 The MEI Act provides for setting up by the Engineering Registration Council (ERC) of an Engineering Qualifying Examination. Every Registered Graduate Engineer wishing to be registered as a Professional Engineer shall, unless exempted, first apply for and pass the Engineering Qualifying Examination.
- 1.2 In compliance with the Act the Council has devised a system of examinations comprising both oral and written parts and in order to qualify every candidate shall satisfy the Council in respect of each part.
- 1.3 The prime purposes of the Engineering Qualifying Examination have been determined by the Council as:
 - (a) To ascertain that candidates have by practice and by experience learned to apply academically acquired knowledge to the solution of practical problems. To this end it is essential that candidates have a working knowledge of the theoretical principles and the Examiners will test this knowledge should they suspect any deficiencies in it. Candidates will not however be expected to have memorized complex mathematical or other formulae and they will be permitted to supply and to refer to textbooks during certain parts of the examination as indicated below.
 - (b) That candidates have had and taken advantage of facilities to gain practical experience.
 - (c) That candidates have acquired or learned the art of logical thinking in matters related to engineering and of expressing their ideas and thoughts both orally and in writing in a manner that is easily and clearly understandable by other people.
 - (d) That candidates are reasonably familiar with economic, social, legal and environmental aspects of the engineering work in which they have been involved.
 - (e) That candidates have made the effort to broaden their theoretical training since graduation and or have kept up-to-date with new developments.
 - (f) That candidates have the ability to present engineering ideas, designs, instructions or principles in neat and tidy graphical form by way of sketches, diagrams or drawings.
 - (g) That candidates are at least aware of management techniques and principles of costing, programming, co-ordination of activities, resource planning, insurance and the like.

2. The Examiners

- 2.1 Upon receipt of candidate's documents, the Council will appoint an examination panel of three experienced engineers to test each candidate. The engineers so appointed shall represent the Council but need not necessarily be ERC Members or MEI Board Members.
- 2.2 One Member of each examination panel will normally be an engineer practicing in the same discipline as the candidate.
- 2.3 One member of the examination panel will be nominated as the First Member and should any candidate be directed by the Registrar to communicate with the panel this should be done through the First Member.
- 2.4 Panel Members are not authorized to answer any questions or to impart any information that might unfairly assist any candidate in preparing for the Qualifying Examination. Any candidate seeking such information may risk disqualification and could expose himself or herself to disciplinary action by the Council.
- 2.5 Panel members are not authorized to divulge examination results to any person. Furthermore, their assessments of the results are subject to confirmation, review or rejection by the Council. Any request for information by a candidate concerning the results of an examination must be directed to the Registrar of the Institution.

3. Application to Enter Qualifying Examination

- 3.1 Candidates wishing to enter for Qualifying Examination should first refer the matter to their Registered Mentor who will advise whether in his/her opinion the Candidate has acquired sufficient experience to sit the examination.
- 3.2 Applications to attend the examinations must be made by form for the purpose. Applicants should at the same time advise the Registrar of their preference for Lilongwe, Mzuzu or Blantyre as an examination centre but no general undertaking can be given that such preference will always be met.
- 3.3 The Council's Qualifying Examinations are held throughout each year. Applications to attend must be addressed to the Registrar, Malawi Engineering Institution

4. Submission of Documents

- 4.1 The candidate shall deliver his documents to the Registrar.
- 4.2 Candidates for the Qualifying Examination will be required to submit the following documents to their Registered Mentor who shall ensure that the submission requirements have been fully complied with. The required documents are as follows:
 - (a) Completed Training Record on the Council's standard form duly signed by the Candidate and his/her Registered Mentor
 - (b) Certificate of Completion of Training on the Council's standard form duly signed by the Candidate and his/her Registered Mentor
 - (c) A report written by the Candidate on his/her engineering experience to date. The report must be in typescript of not less than 1,000 words nor exceeding 2,000 words in length and must be submitted in triplicate.
 - (d) Technical submission which could be an engineering design or technical treatise, manual or report or any other document illustrating the application of engineering principles to an engineering undertaking, project or investigation. The document must be the Candidate's own work or in a situation in which he has participated in its

preparation, his own contribution to it must be clearly indicated and confirmed by signature. Projects undertaken at undergraduate level are not acceptable for this purpose.

- (e) One set of design drawings, charts, diagrams or other form of graphical representation of engineering development prepared by the Candidate during the course of his/her employment or post-graduate training. Wherever possible the drawings, charts, diagrams, etc., should relate to or form part of the document submitted under section (d) above. Confirmation by signature that this part of the submission is the result of original work undertaken by the Candidate or a reproduction of it is required.
- (f) Any other documents which may include bills of quantities, specifications, photographs, etc., which relate to the Candidate's experience.
- (g) A covering letter addressed to the Registrar listing all the documents submitted.

4.3 Documents submitted for the Qualifying Examination must be in strict conformity with the forgoing paragraph 4.2 and must be tidy, neatly presented and in a form in which each part can easily and readily be referred to. In any situation in which these requirements are not met, the Examination Panel has the right at their absolute discretion to either ask the Candidate to resubmit the documents before proceeding, or reject them and to cancel the Qualifying Examination.

5. The Qualifying Examination

- 5.1 The time and place for the Qualifying Examination will be arranged by the First Member of the panel and advised to the Candidate directly or through the Registrar.
- 5.2 The Qualifying Examination shall consist of three parts as follows:
 - (a) The interview
 - (b) Written essays
 - (c) Written answers to design oriented, analytical or technical questions requiring mathematical calculations for their solution
- 5.3 The interview shall consist of oral questions asked by the Examiners on pre-prepared topics put to the candidate and answered orally by him. The questions will relate to the Candidate's experience and documents submitted under section 4 above, and to any other topic in which the Examiners consider that the Candidate should possess engineering knowledge. The candidate will be supplied with pencil and paper to enable him to illustrate his answers with sketches if necessary. Such sketches will be retained and submitted to the Council as a record of the Candidate's performance.
- 5.4 The object of the essay section of the examination is to test the ability of the Candidate to write clearly on a technical subject or subjects within a set period. To this end a Candidate will be asked to write not less than 1, 500 words on one or more topics in a three-hour period as decided by the Examiners. A choice of questions will be given based on the Candidate's experience. Paper for the essay(s) will be provided by the Institution, and illustrations or explanation by means of diagrams or sketches is permitted. Reference to textbooks is not allowed.
- 5.5 The written essay section will be held on the same day as the oral interview or on the day following.
- 5.6 Exemption from the written essay may be granted by the Council at its discretion. Granting of exemption will normally only be considered in the cases of mature candidates, in cases

where documents submitted under section 4.2 above include authoritative reports or in cases where Candidates have previously satisfied the Council in regard to the written essay.

- 5.7 At the discretion of the Examination Panel a candidate submitting documents containing sufficient technical content under section 4.2 above may be exempted from sitting the technical question examination. All other candidates will have to satisfy the Council of their ability to apply engineering principles for the solution of theoretical problems.
- 5.8 The technical examination question will be arranged to take place within one week of the oral interview, and will involve calculated and written answers to one from two alternative questions or two from three alternative questions. The use of calculators, reference books, drawing instruments, French curves and other aids provided by the candidate will be permitted. Questions will be related to academic training undergone by the Candidate. The time allowed for the examination will be determined by the Examination Panel in each instance but in no case will it be less than three hours nor more than seven hours.
- 5.9 The Examination Panel will arrange a time and venue for the technical question paper and advise the Candidate. The Panel will arrange for the provision of suitable paper for the written answers and graph paper if necessary.