

## IEK – TEMPLATE: MECHANICAL ENGINEERING CANDIDATES

### Part 2

#### Project

- i. The project document cover page should show the following information:
  - a. Title of the submission – in this case, the Project or Research submission
  - b. To whom the document is addressed to, i.e, the Honorary Secretary, Institute of Engineers of Kenya
  - c. Name, address, and telephone/email contacts of the candidate/author
  - d. The month/year of submission.
  - e. A general statement of intent (purpose for the submission).
- ii. The declaration and certification to be on one page. The Registration number/status of the certifying Engineer with EBK and IEK should be clearly stated.
- iii. There should a contents page, acknowledgement (if necessary) and an introduction/abstract (for research submission).
- iv. An Executive summary / Abstract should be included detailing a brief description/abstract of the project or research submission, costs, challenges, current status of the project/research etc. Generally, it should not be more than one-page, utmost two page.
- v. The project structure to include chapters.
- vi. Tables of symbols/abbreviations may not be necessary for common known units. In case there are non-familiar units, formulae or acronyms, and peculiar to the project and not in common use in science/engineering, it can be included.
- vii. Units to be consistent by not mixing imperial and metric (SI) units.
- viii. Any formulae or data quoted must be referenced to the source.
- ix. Calculations should be accompanied with schematic diagrams for ease of presentation and understanding. For repetitive calculations, one sample calculation should be done and the rest presented in tabular format.
- x. The results from the design calculations should inform or justify the solution the candidate is offering to the particular problem being addressed (selection of equipment, materials or tools to be used in the project).
- xi. A priced Bills of Quantities showing estimated costs is to be included. In case the project is already tendered, the tender price (actual) is to be mentioned. If there is a huge difference between the two costs, an explanation is to be provided. The BoQ should be presented as the last chapter of the document before the Appendices.
- xii. The actual status of the project (e.g. documentation, tender stage, construction stage, installation stage or completed), or research submission must be indicated. **#Note. This can be omitted because it is already captured in the Executive summary above. However, it can be captured in the final chapter under discussion/recommendation/results analysis.**

- xiii. In case of a research submission, the discussion should be concise and should indicate comparisons, outputs, analysis of results, discussion, recommendations and conclusions.
- xiv. The document to be paginated.
- xv. The project/research submitted should generally not be more than 5 years old.
- xvi. Four (4 No.) copies for the project report or research submission to be submitted. The candidate to ensure that s/he has his/her own copy which will be stamped by the Institution and dated at submission.
- xvii. Appendices to consist of reference data, charts, drawings, repetitive calculations in tabular format etc.
- xviii. If possible, avoid photographs in the main body of the project. Photographs can be replaced by engineering drawings or schematics.
- xix. The report should be neatly bound preferably in spiral for legibility and storage in shelves/archives. The font to be Times New Roman 12pt single spacing and to be printed on both sides of the paper. The Table Fonts may be reduced to 10pt Times New Roman.
- xx. The project submission constitutes 30 marks.

### **Part 3**

#### **Essay**

An essay is to be written by the candidates on 2 No. A4 papers ( 4 No. Pages ) on a current topical or emerging issue/question in science/engineering/technology as chosen by the interview panel. It should be hand-written and must be turned in before 5pm, on the day of interview. The Institution will provide a space to candidates to write the essay.

The essay constitutes 10marks.