

# The Nigerian Society of Engineers

### **GUIDELINES FOR PROFESSIONAL INTERVIEW**

#### For

# **Corporate Membership**

#### 1. THE PROFESSIONAL INTERVIEW

**Definition:** The Professional Interview is a peer review process comprising an examination on the professional competency of the Candidate by Interviewers with respect to:

- a. Grasping and application of engineering fundamentals
- b. Ability to communicate clearly both orally and in writing
- c. Demonstration of ethical judgment in the conduct of all works
- d. Ability to accept professional responsibility
- e. Awareness of engineering sustainability, health and safety issues
- f. A successful Candidate in the Professional Interview would have demonstrated his professional competence attained in all the following areas:
- Training and Experience Report;
- Technical Report;
- Oral Examination;
- Essay Writing Section A, and
- Essay Writing-Section B (now CBT)

#### 2. Documents to be submitted

The documents to be submitted are to be in form of reports, which are described below. TEMPLATES TO BE ADOPTED FOR THE PREPARATION OF THE REPORTS ARE PRESENTED IN THE APPENDIX.

#### **Highlights of Reports**

The Candidate is required to submit **online** each of the following volumes as his or her reports.

- **Volume1**: Report of Post-Graduate Project Experience/Summary of Experience
- Volume2: Design Project Report/Technical Report
- Volume3: Bill of Engineering Measurement and Evaluation Report and take off sheets. This may be part of Volume2 (if the cost analysis is not voluminous especially for Agricultural, Mechanical, Electrical, Food, Metallurgy/Material Engineering and other fields as may be appropriate)

Civil Engineering Candidates with projects on buildings, roads and others with bulky cost analysis should submit separate BEME report as Volume3

Details of the Reports

The detail descriptions of the reports are provided below.

### **Volume1: Training and Experience Report (Summary of work experience)**

The purpose of this Report is to provide a detailed description of the Candidate's engineering training and experience in the course of his/her career. The Report should ideally be of 2,000 to 4,000 words and to be signed by a COREN Registered Engineer, who must be a financially up to date Member of The Nigerian Society of Engineers. As an introduction, the Candidate should summarize in chronological order, his employment record inclusive of the dates of each position held.

The Report shall provide highlights on minimum of **five(5)** projects that a Candidate has carried out / participated in, which shall include one or more of the following categories; Design Work, Feasibility Study, Research and Development Work, and Operation & Maintenance Work (See Syllabus for each discipline).

The report should be presented in order as they were executed, with the following outline:

- Full Title of Project
- Client Name
- Year of project and project duration (i.e total times pent on the project)

- Introduction ( to include need, basis and purpose of project)
- Position occupied and Role of candidate
- Employer of candidate and supervising supervisor
- Cost of project (not detailed analysis)
- Main body– personnel involved e.g. Professionals
- Project methodology
- Actual work done
- Problems encountered if any
- Solutions proffered (based on engineering principles)
- Lessons learnt for personal professional development
- Lessons learnt for engineering professional development
- Recommendations
- Conclusion:

The Report must not be a mere inventory of works prepared and executed. Candidate should also elaborate on any subject in which he has specialized or obtained exceptionally good experience. The size and cost of the works should be indicated.

Throughout the Report, reference should be made to the Candidate's Employer or immediate Superior under whom he has served, giving the Name, Designation, Professional Affiliation and Stating their Membership Grade of NSE & COREN.

### **Volume2: Design Project / Technical Report**

This report should be among projects presented in Volume 1 and should contain actual report of design / fabrication / installation projects carried out by the candidate. Each Candidate is expected to give a detail account of two reports in two different areas of his/her discipline. The projects shall include one or more of the following categories:

### Design Work

The Design should been endorsed by a COREN Registered Engineer, who must be a financially up to date Member of The Nigerian Society of Engineers. Who supervised the Candidate and in the same discipline with the Candidate.

The design should include the following:

- Design information
- Design data
- Design concept
- Calculations (manual and software), tables, charts, diagrams
- Design drawings—at least two working drawings
- drawings should be prepared with AUTOCAD, not free hand sketch, and in minimum drawing size of A3 (PDF)
- Others where applicable: Information sheet, design notes, sketches, feasibility reports,
  EIA
- Design should contain adequate note for self-explanation

A Candidate may submit an additional drawing not necessarily prepared by him, to illustrate his experience in the engineering work.

## b)Feasibility Study

A feasibility study involving function a land economic comparison of preliminary designs of an engineering system, OR a comprehensive report of a major engineering project, OR a system design of a major engineering works. The document should include the following:

- i) At least one relevant drawing conveying essential features of and details of a structure or systems;
- ii) At least three sketches containing sufficient details to enable a Draughts man to work them up into drawings without further guidance;
- iii) Preliminary stress or systems analysis;
- iv) Specifications

### c)Research and Development Work

The following should be noted here:

- i) Description of the research an development work detailing the planning, execution (methodology) and deliverables of the work that clearly demonstrate sound application of engineering principles.
- ii) A critical appraisal of the design on any research experiments or systems which may not be the work of the Candidate may be included.

# d) Operation and Maintenance Work

This will involve:

- i) A detailed description of plant and system operations together with the maintenance schedule, which the Candidate has formulated or designed. In his submission, he should clearly indicate his contribution which would demonstrate a sound understanding of the engineering principles and their application.
- ii) A critical appraisal of the design of the engineering system which may not be the work of the Candidate should be included. Details of modifications made to the existing system which are the work of the Candidate should also be submitted.

# Volume3 - Bill of Engineering Measurement and Evaluation (BEME) and take off sheet

The report of BEME should be among the projects presented in Volume 2 and should contain actual BEME prepared for the projects. This should include the following:

- Notes on how the rates in the bill were built up
- Description of bill items in the format specified by BEME rules
- Bills that are mathematically accurate
- Take-off sheets

The report should be arranged as follows:

- Cover page
- Title page
- Certification page (Certificate of submission)
- Content/Table of contents
- Acknowledgement
- List of figures
- List of table (if any)
- Summary
- Body of the report
- Appendices
- References

#### 3. Certification of Documents

Every drawing and document (supporting sheet, calculation, table, chart, and diagram) wherever relevant is to be signed by the **Supervising Engineer or Mentor, who must also be certified by COREN and who must be a financially up to date Member of The Nigerian Society of Engineers.** 

It is essential that the drawings and document submitted shall be the work of the Candidate in the ordinary course of his employment. Drawings, designs and documents prepared as exercises for academic purposes or otherwise are not acceptable.

#### 4. The Interview/Oral Examination

The Candidate will be required to attend an Oral Examination, conducted by the Principal and Second Interviewers in which his training and experience, not only on time basis but also on merit and quality shall be assessed.

In general, the Oral Examination is intended to assess the Candidate's:

- a) **Design Experience** Understanding with full participation
- b) **Site/Field Experience** Degree of exposure and effective participation
- c) **Management Experience** Capability to organize assignment and accept responsibility
- d) **Engineering Application** Resourcefulness, ingenuity in giving solution with sound fundamentals
- e) **Communication Skill** –Ability to communicate verbally, clarity in speech
- f) **Maturity of Thought** Development of professionalism, ability to focus on material issues rather than personal and petty matters
- g) **Professional Responsibility** Capability to accept professional responsibility, have accountability, not passing the buck and blame others
- h) **Ethical judgment in the conduct of works**–Integrity and good governance
- i) Awareness of engineering sustainability, health and safety issues

#### **NOTE**

At the Interview, a Candidate will be required to show that: he can apply in practice, the theory of at least one of the branches of engineering, and has acquired an understanding of the fundamental processes of research, investigation, planning, analysis, design and construction wherever relevant by actually taking part in contributing to these processes in connection with an engineering research or project, whether or not it is brought to conclusion or fruition.

CANDIDATES ARE EXPECTED TO PRESENT THE ORIGINAL OF THEIR ACADEMIC / PROFESSIONAL CERTIFICATES INCLUDING NYSC, MCPE AND CoPEEE CERTIFICATES AT THE EXAMINATION INTERVIEW CENTRE OR SHOW SAME AT INTERACTION ON ZOOM, AS THE CASE MAYBE.