



EEU/2018

FEDERAL UNIVERSITY OYE-EKITI
FACULTY OF ENGINEERING
DEPARTMENT OF MATERIALS AND METALLURGICAL ENGINEERING
SESSION: 2017/2018 **SEMESTER: SECOND**
Unit: 1.0 **Time: 1hr:30mins**

Course Title: Engineers in Society. **Course Code:** ENG 205

Instruction: Read this instruction carefully

Answer three questions in all; one question from each Section.

- 1a. Explain in details the procedure for the attainment of full registration as qualified engineer.
b. List and discuss Four major roles of an engineer in the construction industry.
- 2a. Enumerate six ethics of engineering profession
b. Mention the various cadres in engineering profession and discuss the fundamental roles of each of the cadre.

SECTION B

- 3a. State FIVE important responsibilities of engineer to the public
b. State FIVE responsibilities of registered engineer with regards to contact
c. Mention FIVE objectives of engineering profession ethics
- 4a. Highlight FIVE responsibilities of registered engineer to his employer or client.
b. List FIVE engineering base establishments and their locations in Ekiti State.
c. What should be the relation among registered engineering personnel? Mention FIVE.

SECTION C

- 5a. Briefly discuss the areas of specialisation in Agricultural Engineering or Mechanical Engineering
b. Mention the relevance of Electrical Engineering profession or Computer Engineering profession and Engineers to the society.
- 6a) Explain the functions of a Materials and Metallurgical Engineer.
b) What are the career opportunities in Civil or Mechatronic Engineering?



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First Semester Examination 2018/2019 Session

Course Title: ENGINEERS IN SOCIETY Course Code: ENG 205 Unit: 1.0

Instruction: Answer one question from each section

Time Allowed: 1 Hour

Section A

1a. Define science according to Pytlík et al., (1985), hence enumerate the division of science.
b. "Technology refers to machines (hardware) and management practices (software) needed to achieve a production target whether goods or services", hence list the Technology that is involved in typical soap manufacturing company.

2a. As an Engineering student, give a comprehensive description of Engineering profession.

b. Classify Engineering family according to COREN

Draw a typical chain of command in an engineering outfit where different members of the engineering family are at work.

Section B

3. Complete the following terms used in *elements of a safety program*:

- Safety ----(i)-----
- Hazard ----(ii)-----
- ----(iii)----- work practices
- Safe work ----(iv)-----
- Company ----(v)-----
- ----(vi)----- protective equipment
- ----(vii)----- maintenance
- Training and ----(viii)-----
- ----(ix)----- and reporting
- Emergency ----(x)-----

4. Complete the following missing terms in factors of *indirect and hidden costs in the iceberg analogy of financial benefits*:

- Time loss of ----(i)----- worker
- Loss of ----(ii)----- power
- Economic loss to ----(iii)-----
- Lost time by fellow ----(iv)-----
- Loss of ----(v)----- crew break-up
- Time damaged tool out of ----(vi)-----
- Spoiled ----(vii)-----
- Spoilage - fire, water, and ----(viii)-----
- Failure to fill ----(ix)-----
- Overhead costs during ----(x)-----

Section C

5a. What are the aims and objectives of engineering ethics?

b. Enumerate the areas of specialisation of **one** of the following:

i. Agricultural & Bio-Resources Engineering

ii. Mechanical Engineering

6a. List five responsibilities of an engineer to the profession

b. Mention three career opportunities in each of these engineering professions:

i. Civil Engineering ii. Materials & Metallurgical Engineering iii. Electrical & Electronics Engineering