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Subj = Professional Ethics

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Exam =
Mid term

Professional Ethics

Q2 Choose the correct response

Ans 1

- (A) Legal and Moral
- (B) Legal and Immoral
- (C) Illegal and Moral
- (D) Illegal and Immoral
- (E) Illegal and Immoral

Q2

Ans2 Decisions made by Engineers:
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- => Engineers must be able to think ahead to anticipate possible consequences of their professional action.
- => Engineers must be able to think effectively about those consequences and decide what the ethically correct manner to handle the situation is.
- => Engineers make decisions crucial to the society at large.
- => Ethical decision which is legal and follows all the prevailing rules, regulations and standards and is beneficial to the client.

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- (A) Environmental damage beyond the limit what the engineers considers to be moral.
- (B) Reduced Public Safety.
- (C) Loss to helpless, voiceless, marginalized stakeholders.

"While making a decision by an Engineer, people will be impacted which quoted as under with a case study of DC-10 Jumbo Jet as an Example.

DC-10 Jumbo Jet

=> The fuselage of the DC-10 Jumbo Jet of which the cargo door is part was developed by Convair a sub-contractor for McDonnell Douglas.

=> Convair Senior engineer directing the project Dan Applegate had written to the Vice President of the company.

"The cargo door could burst open leading to crash of the plane. Hence the door has to be redesigned and the cabin floor has to be strengthened"

=> Top management at Convair neither disputed the technical facts or the predictions made by Applegate. The liabilities and the cost of redesign too high.

Two years went by.

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In 1974 the cargo door of DC-10 Jumbo jet burst open and the crashed near Paris killing

346 people.

Reason:

⇒ Three vital modifications were suggested to have been made on the door to prevent any future tragedy.

But according to the latest revelations only one of the modifications was definitely made.

"yet" "Reports the Sunday Times"

⇒ All three are shown in McDonnell Douglas records as having been executed, inspected and passed as airworthy. The vital improvements were part of a "gentleman's agreement" B/w the Federal Aviation Administration and McDonnell Douglas --- only one modification was meaningless by itself.

Case of crash: The cause of the air crash would never have been discovered if the Plan's wreckage had not been discovered. "B/c the pieces were found, the mechanical failure of the door was detected - but McDonnell Douglas have steadily refused to reveal the results of their internal inquiries into the origin of the false records which led to the crash."

Q3

Ans 3: Code of Ethics for Engineers:
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=> The Engineering code of Ethics has three components.

① The Fundamental canons:

Which articulate the basic components of Ethical Engineering

② The Rules of Practice:

Which classify and specify in detail the fundamental canons of Ethics in Engineering.

③ Professional Obligations:

Which elaborate the obligations that Engineers have.

The Fundamental Principle:

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Engineers uphold and advance the Integrity, Honor and Dignity of the Engineering profession by:-

=> using their knowledge and skill for the enhancement of human welfare.

=> Being their honest and impartial and serving with fidelity the public their employers and clients.

=> Striving to Increase the Competence and Prestige of the Engineering Profession and Supporting the professional and technical their ~~dis~~ disciplines.

Fundamental Conons:

- => Engineers shall hold paramount the safety, Health and welfare of the Public in the performance of their professional duties.
- => Engineers shall perform services only in the areas of their competence.
- => Engineers shall issue Public Statements only in an objective and truthful manner.
- => Engineers shall act in professional matters for each employer or client as faithful or trustees and shall avoid conflicts of interest.
- => Engineers shall build their professional reputation on the merit of their services and shall not compete unfairly with others.
- => Engineers shall act in such a manner as to uphold and enhance the honor, integrity and dignity of the profession.

=> Engineers shall continue their professional development throughout their careers and shall provide opportunities for the professional development of those engineers under their supervision.

(Students have a code of Ethics too)

The San Jose State University Academic Integrity Policy requires that each student.

- ① Know the rules that preserve academic integrity and abide by them at all times. This includes learning and abiding by rules associated with specific classes, exams and course assignments.
- ② Know the consequences of violating the Academic Integrity Policy.
- ③ Know the appeal rights and the procedures to be followed in the event of an appeal.
- ④ Foster academic integrity among peers.

Example

① => Just as a building can have poor integrity or good integrity. A person can also.

② => A building has structural integrity when it is designed in way such that it appropriately responds to the stresses and loads that it is designed to act under

③ => A person has integrity when she/he can follow the codes he/she is supposed to follow under the stresses and loads of his/her role.