

Professional Ethics

Department: Civil Engineering

Program: B-Tech

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Total Marks: 30

Q.1. Choose the correct response

- a). Forcing people to close their businesses, and forcing them to stay at home during the Covid-19 pandemic. (Legal and Moral)
- b) Smoking Cigarettes. (Legal and Immoral)
- c) Parking in a no parking zone, to come to the aid of an injured person. (Illegal and Moral)
- d). Punishing students physically. (Illegal and Immoral)
- e). A student is cheating in examination but he is not caught by the invigilators. (Illegal and Immoral)

Q.2. Decisions made by engineers usually have serious consequences to people -- often to multitudes of people. Explain with example?

Ans:

①

Ans:

While making a decision by an engineer people will be impacted which is quoted as under with a case study "ST. FRANCIS DAM" as an example.

ST. FRANCIS DAMS

The St. Francis Dam located approximately forty miles northwest of Los Angeles, California, St. Francis Dam was a curved concrete gravity dam constructed between 1925 and 1926 in order to provide a storage reservoir for the "Los Angeles" system. It was only the second concrete dam of nine dams built by the "Los Angeles Bureau" of water works & supply.

This Dam constructed under the supervision of "William Mulholland," manager and chief engineer of the "Los Angeles City" owners

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Los Angeles Bureau of water works and supply, ~~the~~ dam's several cracks and leaks were observed in the dam and its abutments, but Metholland dismissed these as ~~a~~ normal. After the ~~reservoir~~ reservoir was filled to capacity for the first time on "March 7, 1928," he inspected the dam and proclaimed it safe. Just before midnight on March 12, however, the dam's massive concrete wall collapsed, sending billions of gallons of water rushing down the canyon to ward the "Pacific ocean. The towns of Castaic Junction, Fillmore, Bardsdale and Piru were ~~at~~ Hooded.

Damaged done by failure of the Dam:-

More than 1000 houses were damaged or destroyed. The official

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death toll was estimated to be 450, but the number killed was likely higher. many victims bodies were never recovered, and the numerous transient farm workers and illegal immigrants who perished in the flood were never accounted for in official statistics.

Due to the tremendous loss of life and property damage estimated to be \$ 7 million dollar.

Some consider the failure of the St. Francis Dam to be the "Worst American civil engineering disaster of the 20th century."

Ethical Issues:-

The coroner's inquest found that the failure of the St. Francis Dam was due to

→ Unsatisfactory soil conditions at the site

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- Failure to compensate for the additional 20 feet added to the height of the dam.
- The design and construction overseen by only one person (Mulholland).

"Lessons learned"

The civil engineering professional has learned much from the St. Francis Dam failure both technically and procedurally. There are, however, lessons that should be ~~set~~ restated and carried forward to future projects.

Q.3. What code of ethics do you follow as student of engineering? Give example from your academic and social life.

Ans:-

Being an engineering student, I should follow the following code of ethics.

STUDENT PARTICIPATION:-

Students have the responsibility of participating fully in the learning process. Students must report to university and to all scheduled classes on time with appropriate supplies and come prepared to work. Students are expected to pay attention to instructors, complete assignments to the best of their ability and request help when needed.

STUDENT BEHAVIOR:-

Students have the responsibility to reasonably avoid any behavior that is detrimental to achieving

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their own or other students; educational goals. Students must cooperate in taking reasonable care of books, other instructional materials, technology, and encourage a climate where learning is cherished.

"Respect For STUDENTS"

Students have the responsibility of showing respect for the rights and human dignity of fellow students. For example, students must not engage in name-calling, fighting, harassment, bullying, belittling or engaging in deliberate attempts to embarrass or harm another student.

"ACADEMIC INTEGRITY"

In Institute values academic integrity and is committed to

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fostering an intellectual and ethical environment. Academic Integrity encompasses honesty, responsibility and awareness relating to ethical standards.

→ Properly acknowledges and cites the use of the ideas, results, material or word of other

→ Properly acknowledges all contributors to a given piece work.

→ Makes sure that all work submitted regarding a course or other academic activity is produced without the aid of impermissible materials or impermissible collaboration.

→ Obtains all data or results by ethical means and reports them accurately without suppressing any results inconsistent with his or her interpretation or conclusions.

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→ Treats all other students in an ethical manner, respecting their integrity and right to pursue their educational goals without interference. This requires that a student neither facilitates ~~or~~ academic dishonesty by others nor obstructs their academic progress.

