

Student ID :- 13727 - Program :- B.tech (Civild).

Module :- 6th Semester - Subject :- Professional Ethics.

Submitted TO :- Sir Imran - Date :- 18, 4, 2020.

(1)
Q No :- Choose the correct answer.

(a) :- Legal and Moral.

(b) :- Legal and Immoral.

(c) :- Illegal and Moral.

(d) :- Illegal and Immoral.

(e) :- Illegal and Immoral.

(2)
Q No :- Decisions made by engineers usually have serious consequences to people - often to multitude of people. Explain with Example ?.

Ans :- Firstly we discuss the issues and then example related to this topic

The special issues aims at providing recent developments about the decision making in the field of civil engineering. This field is vast and play an important role in the life of modern society. A very large number of decisions must be made in the life cycle of constructed objects. The decisions will be required in the time span starting from conceptualization of these objects and covering design, construction, occupation, and decommissioning.

Let study about the type of issue related to this topic.

(1) Issue #01 :- Health and Safety.

• The main issue is a nuclear power plant. This is dangerous for current and future generation from leakage of radio-isotopes used in nuclear power.

Plutonium-239 (Pu) is used in nuclear power plant. Plutonium-239 (half-life = 24,110 yr) is a particularly toxic radio-isotopes. Normally, 10 half life are required before a Pu-239 contaminated area is considered safe again.

So if plutonium leaked, due to an earthquake it would cause a health risk for roughly 8000 generations.

⇒ Health and safety risks, further consideration:-

(a) The possibility of medical science discovering a cure for cancer sometime in the current or next centuries adds uncertainty to the long term health risks of leakage of ~~radio-isotopes~~ - active isotopes.

(b) The use of nuclear power may increase our knowledge of radioisotopes used for medical purposes.

⇒

⇒ Issue # 02:- Depletion of resources:-

Fossil fuels, oil, natural gas and coal, are renewable. These resources also effect the goal of health because of their impact on ~~paper~~ pollution and climate changes.

⇒ Issue # 03:- Comparative economic costs of renewable sources:-

Renewable sources such as hydro-electric power, wind power, solar power, geo-thermal heat, agricultural biomass and tides do not cause the environmental hazards that fossil-fuels do.

Example related to this topic :

The example shows that when engineers take a bad decision of a construction, it will ~~dis~~ cause disadvantages to environment, human lives and also future generation.

There are some examples.

(1) Fukushima Nuclear Plant Accident :-

Fukushima nuclear power plant also known as Fukushima Dai-ichi power plant.

In March 11, 2011, the 9.0 earthquake and followed by a not expected tsunami the evacuation zone of 30 Km around the plant which would lead to nuclear radiation leak. The earthquake and tsunami has disabled the cooling system of the nuclear reactor. It has resulted in massive tsunami that destroyed many towns and villages, nearly have to 20000 people death.

(2) Disaster of the St. Francis Dam :-

The St. Francis Dam was built in order to meet the demands of Los Angeles that were expanding rapidly around the mid-1920s. In order to build dam, an American-Irish civil engineer, William Mulholland ~~is~~ known to have ~~designed~~ the ~~dam~~ was hired. He made the design himself.

and built the dam alongside the LA-Aqueduct.

There were warning of leakage and ~~dam~~ cracks in the dam after 2 years.

But Mulholland ignored them all.

Finally in 1928, the dam burst 2 hours after his inspection and killed over 450 people.

(3) The collapse of the Tacoma Bridge :-

In the year 1940, Tacoma Bridge in Washington collapsed. In November of 1940, there were strong winds of the speed 100 mph in that area. This led to a significant oscillation of the bridge. Although the tower of the bridge were made up of strong carbon steel, they failed to protect it against the violent movements made by heavy wind. The mishap led to a loss of \$64 million.

Qno⁽³⁾ :- What code of ethics do you follow as a student of engineering? Give example from your academic and social life.

Ans :- Academic and social code of conduct :-

A ~~an~~ commitment to excellence, diversity and the global perspective defines.

We seek excellence in all that we do and believe that it is only the responsibility of each individual to strive for his or her best, but to create the conditions for

the success of others. This requires respect, respect for yourself, respect for others.

There are academic and social codes of ethics which we follow as students of engineering and also an example from students' social and academic life which are following below.

⇒ Academic code of conduct :-

All institute committed to creating the best learning environment possible for its students. The ~~an~~ academic code of conduct is an important tool for achieving this goal.

(1) Classroom rules :-

- * Respect is the cornerstone of all learning. Both students and professors are expected to demonstrate respect for each other and learning process.
- (*) Eating is strictly prohibited in classrooms.
- (*) Cell phones and other electronic devices that are not required for the class, should be turned off before the class starts.
- (*) All classes start on time, late arrival may count as absent.

(2) Attendance :-

- (*) Attendance is expected for all classes.
- (*) If you are unable to attend a class, you must notify your class teacher.

(*) Students are expected to arrive on time. Late arrivals may be counted as an absence.

(*) 4 absences in one class during a 16 week period will result in an automatic failure for the course.

(3) Active participation and preparation for class:

(*) Students are expected to be fully prepared and ready to participate in class.

(4) Plagiarism:

(*) Plagiarism is the copying of someone else's ideas, data, words or images without correctly acknowledging the original source. It can be either intentional or unintentional, but always involves the attempt to present someone else's work as your own.

(*) Students are responsible for reading and understanding the institute policy on plagiarism.

(5) Examination behaviour:

(*) Students are expected to arrive on time. Student who arrive more than fifteen minutes late for an examination may not be admitted.

(*) Eating is strictly prohibited during exam.

(*) Student ~~is~~ ~~strictly~~ should display their ID and student ID-card on their table during the exam.

⇒ Social code of conduct :-

Developing the physical, psychological, and social potential of each student is integral to a liberal arts and sciences residential education. As with academic conduct, students are expected to demonstrate respect toward others in their institute community, making decisions and behaving with the well-being of the entire community in mind. Therefore, social conduct that is deemed ~~in~~ inappropriate may result in a student being placed on social probation.

(1) Inappropriate social conduct :-

The definition of inappropriate social conduct is ultimately at the discretion of the Dean, but includes any behaviour or action that seriously threatens the physical, psychological or social well-being of a student.

(2) Endangering the safety of others :-

Any behaviour or action that endangers the safety of a member of the any institute community on the academic, an officially sanctioned event of the institute, or within the residences of that institute can result in a student being placed on social probation.

③ Smoking :- Smoking is strictly prohibited in every institute for the students.

4) Residential Living :-

Residential living requires a special commitment on the part of all residents to maintain a respectful, healthy and harmonious environment. Every institute fully expects our students to remain respectful of themselves, each other, and their living spaces at all times. Faced with a problem, students are expected to try to resolve the issues themselves.

the End.