

Bangladesh University of Business & Technology

Mid Term Examination
on
Project Management & Professional Ethics

Course Code: CSE 407

Submitted to:

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Intake: **39**

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Date of submission: 08-1008-2021

Ans to the ques. no- 1 (a)

Software crisis is a term used in computer science for the difficulty of writing useful and efficient computer programs in the required time. It is characterized by inability to develop the desired software project because of such problems:

- (a) project running over budget.
- (b) project running over time.
- (c) software is inefficient.
- (d) software is of low quality.
- (e) software doesn't meet requirements.
- (f) project is unmanageable / code difficult to maintain.

Years earlier the U.S. Airforce faced a major software crisis in its F-35 fighter plane. The plane engineers identified a software bug that caused the planes, when flying in formation, to incorrectly detect targets. As each of the planes within the formation ~~to incorrectly detect targets~~ detect a target from varying angles, the software is reportedly unable to decipher whether there is just one or multiple targets. As one news agency put it, the F-35's are "seeing double".

Ans to the ques no- 1 (b)

Graduate Attributes form a set of individual assessable outcomes that are the components indicative of the graduate's potential to acquire competence to practice at the appropriate level. The graduate attributes are example of the attributes expected of a graduate from an accredited program. Graduate attributes are clear, succinct statement of the expected capability, qualified if necessary by a range indication appropriate to the type of program.

For example, Engineering knowledge is a graduate attribute and it applies knowledge of mathematics, natural science, engineering fundamentals, and an engineering specialization

A professionally or occupationally competent person has the attributes necessary to perform the activities within the profession or occupation to the standards expected in independent employment or practice. The professional competency profiles for each professional category record the elements of competency necessary for competent performance that the profession is expected to be able to demonstrate in a holistic way at the stage of attaining registration.

For example, at the professional level, the ability to take responsibility in a real life situation is essential. Unlike the graduate attributes, professional competence is more than a set of attributes that can be demonstrated individually. Other competence must be assessed holistically.

Answer to the question no. (2a)

Predicting human behaviour by collecting data using camera, microphone, could be a social experiment.

Why I should call it social experiment.

Well, Now a days we have a lot of problems and as well as a lot of people in our country so we can not predict a ever next step by simple knowledge. If we use

machine learning and analyze the data to predict a human behaviour it could be helpful for our society.

But how it could be helpful for our

society?

Well when a ~~man~~ person is going to commit a crime we can pursue him from committing ~~from~~ the crime.

When a frustrated person goes to commit suicide we can pursue him ~~not~~ not to suicide.

~~This is~~ That is how by implementing the system as social experiment we can use it as for social service.

Answers to the ques. no- ~~2(b)~~ 2(b)

The rights that engineers have as professional are called professional Right. These professional rights include -

- (a) The basic right of professional conscience
- (b) The right of conscientious refusal.
- (c) The right to professional recognition.

Right of professional conscience:

The right of professional conscience is to moral right to exercise professional judgement in pursuing professional responsibilities. It requires autonomous moral judgement in trying to uncover the most morally reasonable courses of action, and the correct courses of action are not always obvious. There are two general ways to justify the basic right of

professional conscience

→ The exercise of moral reflection and conscience that justifies professional duties is necessary, with respect to that duty

→ The general duties to respect persons and rule-utilitarianism could account the public good of allowing engineers to pursue their professional duties

Right of Conscientious Refusal:

The right of conscientious refusal is the right to refuse to engage in unethical behavior.

This can be done solely because it feels

unethical to the doer. This action might bring conflicts within the authority-based relationships.

The two main situations to be considered here are -

⇒ When it is already stated that certain act is unethical in a widely shared agreement among all the employees

⇒ When there occurs disagreement among a considerable number of people whether the act is unethical.

Right of Recognition:

An engineer has right to the recognition of one's work and accomplishments. An engineer also has the right to speak about the work one does by maintaining confidentiality and can receive external recognition. The right to internal recognition which includes patents, promotion, raises, etc. along with fair remuneration, is also a part of it.

Answer to the question. no. 3 @

To successfully complete a project, the team should consider some strategic activities which are called software project management.

To deploy or develop an NX-BUBT the NX-BUBT developer team must follow some rules. These rules are :

1. Project planning & Tracking
2. Project Resource management
3. Scope Management
4. Estimation Management
5. Project Risk Management
6. Scheduling Management
7. Project Communication Management

8. Configuration management

Besides these rules under Estimation management the team should also consider some cost like

- Size of software
- Quality
- Hardware
- Communication
- Training
- Additional software tools
- Skilled manpower.

With these resource the team should use some tools like

Gantt chart

Pert chart

to trace their progress and flow of the work.

By using these tools and tactics
the team will be able to develop
the project easily.

By I hope when the team developed
the NX-BUBT project they must
use these tactics and strategies
with these tools to develop the
project easily.

Answer to the question no- 3 (b)

A software project could be turned into failure for various aspects. May be as Wales National Health Service (NHS) provides the service, it must be a large service, as a result the project became more complex and the work got bogged down. May be there was some design flaw, architectural and code flow in the project. The testers may/might missed some functionality and later these problems are formed into a major problem and turned the project into a halt.

To avoid the scenario, all the members should be very careful about the

- Problem identification
- problem definition
- Project planning
- Project organization
- Resource allocation
- project scheduling
- Tracking, reporting & controlling 2)
- project termination

To run or complete a project effectively the management should consider 4 P's

whose are

- people
- product
- process &
- project