Register Number:……..

KUMARAGURU
college of technology
character is life

B.E DEGREE EXAMINATIONS: MAY 2018

(Regulation 2015)

Fourth Semester

ELECTRONICS AND COMMUNICATION ENGINEERING

U15GST007: Professional Ethics

COURSE OUTCOMES

CO1: Analyze the various concepts and theories of engineering ethics

CO2: Apply concepts of ethics and analyze its impact on society

CO3: Apply and analyze the concept of safety and risk in the light of engineering ethics

CO4: Analyze and evaluate the rights & responsibilities of engineers

CO5: Analyze the ethical issues engineers are to consider while operating globally

CO6: Applying and analyzing the responsibilities of engineers in management and leadership roles

Time: Three Hours **Maximum Marks: 100**

Answer all the Questions:-

PART A (10 x 1 = 10 Marks)

1. Matching type item with multiple choice code CO2 [K_2]

List I	List II
A. Challenger Disaster	1. Thatched Roofs
B. Columbia Disaster	2. Insufficient Safe Exits
C. Titanic Disaster	3. O Ring failure
D. Kumbakonam school Disaster	4. Peeling off of insulation tiles

	A	B	C	D
a)	1	2	3	4
b)	3	4	2	1
c)	4	3	2	1
d)	1	3	2	4

2. The engineer's main responsibility is considered to be CO4 [K_2]

a) Good conduct b) punctuality

c) professionalism d) Dress code

3. Morals are defined as: CO1 [K_3]

1. Rules of acceptable personal behavior when interacting with others in a social setting
2. A system of rules and punishments established by a society to maintain a safe and orderly social environment.
3. Personal rules of right and wrong behavior derived from a persons' upbringing, religious beliefs and societal influences.
4. A code or system of rules defining moral behavior exceeding requirements defined in the general laws of society.

a) 1,3 b) 1,3,4

c) 1,2 d) 2,3

4. An action is considered morally right or if it is approved or disapproved by customs according to …….. CO1 [K_2]

a) Ethical relativism b) Ethical pluralism

c) Ethical egoism d) Divine command ethics

5. Assertion (A): A risk is the potential that something unwanted and harmful may occur CO3 [K_2]

Reason (R): delayed job completion, faulty products or systems, or economically or environmentally injurious solutions to technological problems

a) Both A and R are Individually true and R is the correct explanation of A b) Both A and R are Individually true but R is not the correct explanation of A

c) A is true but R is false d) A is false but R is true

6. The factors influencing the risk will include CO3 [K_2]

1. Short- term Vs. long-term consequence
2. Expected probability
3. Reversible (bad)effects
4. safety of the manufacturing unit

a) 1,2,4 b) 2,3,4

c) 1,3,4 d) 1,2,3

7. Sequence the following: CO6 [K_2]

As leaders the steps to follow to achieve the goals of the organization include

1. set vision and direction
2. align people and form coalition
3. motivate and inspire people to move forward
4. create strategies to achieve vision
5. conceive action steps to accomplish goals

a) 2-3-4-1-5 b) 1-4-5-2-3

c) 5-3-4-2-1 d) 4-1-5-3-2

8. Select the instructions which are true. CO2 [K_2]

1. Submitting your own work from one class to another class or submitting one piece of work to two distinct classes is a kind of cheating.
2. Knowing what one claims to know is called competent .
3. Informed consent consists of knowledge, voluntariness, decision making.
4. A commitment to obtain and properly assess all available information is showing moral concern.

a) 1,2,3 b) 4

c) 1,3,4 d) 3,4

9. Assertion (A): Engineers have obligation to respect their employer's legitimate authority CO4 [K_2]

Reason (R): Collective bargaining is working against the employer's authority

a) Both A and R are Individually true and R is the correct explanation of A

b) Both A and R are Individually true but R is not the correct explanation of A

c) A is true but R is false

d) A is false but R is true

10. Gaining unauthorized access to a database, implanting false information in a database or altering existing information and disseminating viruses over the internet is called CO5 [K_2]

a) Security breach b) Computer piracy

c) hacking d) Privacy issues

PART B (10 x 2 = 20 Marks)
(Answer not more than 40 words)

11. Differentiate between Kohlberg and Giligan theories. CO1 [K2]

12. What is the meaning of profession and who is called a professional? CO1 [K_2]

13. What is conscientiousness? CO2 [K_2]

14. Illustrate over estimation and under estimation. CO2 [K_2]

15. Write the problems faced by the Engineers regarding the public conceptions of safety. CO3 [K_2]

16. What are the costs to be considered in risk benefit analysis? CO3 [K_2]

17. What kinds of authority should an engineer respect? CO4 [K_2]

18.	When does conflict of interest occur?		CO4	[K_2]
19.	Compare the three senses of relative values.		CO5	[K_2]
20.	Elaborate on cyber ethics related to society.		CO6	[K_2]

Answer any FIVE Questions:-
PART C (5 x 14 = 70 Marks)
(Answer not more than 300 words)

Q.No. 21 is Compulsory

21.	With respect to a corporate environment, elaborate on the various conflicts that may occur and the difficulty level of resolving each.		CO6	[K_2]
22.	Using Challenger case study, discuss how the implied obligations of the engineers to the society were to be seen and how they were neglected.		CO2	[K_3]
23.	i. Briefly explain the three main levels of moral development, developed by Laurence Kohlberg.	(8)	CO1	[K_2]
	ii. How did Gilligan recast Kohlberg's level of moral development?	(6)	CO1	[K_2]
24.	i. With respect to the three mile island case, elaborate on the risks taken and the outcomes.	(8)	CO3	[K_2]
	ii. Briefly explain what steps could have been taken to mitigate these risks.	(6)	CO3	[K_2]
25.	With respect to the Nilgiri Bio reserve, write the threats and effects of unethical use of land resources on environment. Explain at least three various effects.		CO5	[K_3]
26.	i. Elaborate about the features of morally responsible Engineers.	(8)	CO2	[K_2]
	ii. What are the obligations an engineer has towards his employer, colleagues, customers and society?	(6)	CO2	[K_2]
27.	With respect to discrimination, write the possible ways of discrimination that can occur in a work environment and explain their consequences.		CO4	[K_3]

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