

## HUMAN VALUES & PROFESSIONAL ETHICS – II

Paper Code: ETHS-402

Paper : Human Values & Professional Ethics-II

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### **INSTRUCTIONS TO PAPER SETTERS:**

**MAXIMUM MARKS: 75**

1. Question No. 1 should be compulsory and cover the entire syllabus. This question should have objective or short answer type questions. It should be of 25 marks.
2. Apart from Question No. 1, rest of the paper shall consist of four units as per the syllabus. Every unit should have two questions. However, student may be asked to attempt only 1 question from each unit. Each question should be of 12.5 marks.
3. Two internal sessional test of 10 marks each and one project report\* carrying 5 marks.

### *Objectives:*

1. *The main object of this paper is to inculcate the skills of ethical decision making and then to apply these skills to the real and current challenges of the engineering profession.*
2. *To enable student to understand the need and importance of value-education and education for Human Rights.*
3. *To acquaint students to the National and International values for Global development*

### **UNIT I - Appraisal of Human Values and Professional Ethics:**

**Review of Universal Human Values:** Truth, Love, Peace, Right conduct, Non violence, Justice and Responsibility. Living in harmony with 'SELF', Family, Society and Nature. Indian pluralism - the way of life of Islam, Buddhism, Christianity, Jainism, Sikhism and Hinduism, Greek - Roman and Chinese cultural values. Sensitization of Impact of Modern Education and Media on Values:

- a) Impact of Science and Technology
- b) Effects of Printed Media and Television on Values
- c) Effects of computer aided media on Values (Internet, e-mail, Chat etc.)
- d) Role of teacher in the preservation of tradition and culture.
- e) Role of family, tradition & community prayers in value development.

**Review of Professional Ethics:** Accountability, Collegiality, Royalty, Responsibility and Ethics Living. Engineer as a role model for civil society, Living in harmony with 'NATURE', Four orders of living, their inter-correctness, Holistic technology (eco-friendly and sustainable technology).

[T1][T2][R1][R5][R4][No. of Hrs. 03]

### **UNIT II – Engineers responsibility for safety:**

Safety and Risks, Risk and Cost, Risk benefit analysis, testing methods for safety. Engineer's Responsibility for Safety Social and Value dimensions of Technology - Technology Pessimism – The Perils of Technological Optimism – The

Promise of Technology – Computer Technology Privacy

**Some Case Studies:** Case Studies, BHOPAL Gas Tragedy, Nuclear Power Plant Disasters, Space Shuttle Challenger, Three Mile Island Accident, etc.

[T1] [T2] [R4] [R2][No. of Hrs. 03]

### **UNIT III – Global Issues:**

**Globalization and MNCs:** International Trade, Issues,

**Case Studies:** Kellogg's, Satyam, Infosys Foundation, TATA Group of Companies

**Business Ethics:** Corporate Governance, Finance and Accounting, IPR.

**Corporate Social Responsibility (CSR):** Definition, Concept, ISO, CSR.

**Environmental Ethics:** Sustainable Development, Eco-System, Ozone depletion, Pollution.

**Computer Ethics:** Cyber Crimes, Data Stealing, Hacking, Embezzlement.

[T1] [T2] [R4][No. of Hrs. 05]

### **UNIT IV - Engineers Responsibilities and Rights and Ethical Codes:**

Collegiality and loyalty, Conflict of interests, confidentiality, occupational crimes, professional rights, responsibilities. To boost industrial production with excellent quality and efficiency, To enhance national economy, To boost team spirit, Work Culture and feeling of job satisfaction, National integration, Examples of some illustrious professionals.

Need for Ethical Codes, Study of some sample codes such as institution of Electrical and Electronics Engineers, Computer Society of India etc., Ethical Audit.

**Development and implementation of Codes:** Oath to be taken by Engineering graduates and its importance\*\*,

[T1] [T2] [R4][R2][No. of Hrs. 05]

**Text Books:**

- [T1] Professional Ethics, R. Subramanian, Oxford University Press.
- [T2] Professional Ethics & Human Values: Prof. D.R. Kiran, TATA Mc Graw Hill Education.

**References Books:**

- [R1] Human Values and Professional Ethics: R. R. Gaur, R. Sangal and G. P. Bagaria, Eecel Books (2010, New Delhi). Also, the Teachers' Manual by the same author
- [R2] Fundamentals of Ethics, Edmond G. Seebauer & Robert L. Barry, Oxford University Press
- [R3] Values Education: The paradigm shift, by Sri Satya Sai International Center for Human Values, New Delhi.
- [R4] Professional Ethics and Human Values – M.Govindrajan, S.Natarajan and V.S. Senthil Kumar, PHI Learning Pvt. Ltd. Delhi
- [R5] A Textbook on Professional Ethics and Human Values – R.S. Naagarazan – New Age International (P) Limited, Publishers New Delhi.
- [R6] Human Values & Professional Ethics- S B Gogate- Vikas publishing house PVT LTD New Delhi.
- [R7] Mike Martin and Roland Schinzinger, "Ethics in Engineering" McGraw Hill
- [R8] Charles E Harris, Micheal J Rabins, "Engineering Ethics, Cengage Learning
- [R9] PSR Murthy, "Indian Culture Values and Professional Ethics", BS Publications
- [R10] Caroline Whitback< Ethics in Engineering Practice and Research, Cambridgs University Press
- [R11] Charles D Fleddermann, "Engineering Ethics", Prentice Hall.
- [R12] George Reynolds, "Ethics in Information Technology", Cengage Learning
- [R13] C, Sheshadri; The Source book of Value Education, NCERT
- [R14] M. Shery; Bhartiya Sanskriti, Agra (Dayalbagh)

\*Any topic related to the experience of the B.Tech student in the assimilation and implementation of human values and professional ethics during the past three years of his/her studies in the institute OR A rigorous ethical analysis of a recent case of violation of professional ethics particularly related to engineering profession.

\*\*All students are required to take OATH in writing prior to submission of major project and the record of the same is to be maintained at the college level and/or, this oath may be administered by the head of the institutions during the graduation ceremonies. The draft for the same is available alongwith the scheme and syllabus.