

Please check that this question paper contains 9 questions and 2 printed pages within first ten minutes.

[Total No. of Questions: 09]

[Total No. of Pages:]

Uni. Roll No.

Program: B.Tech. (Batch 2018 onward)

Semester: 3

MORNING

Name of Subject: Education, Technology and Society

09 MAY 2023

Subject Code: HSMEE-101

Paper ID: 16063

Time Allowed: 03 Hours

Max. Marks: 60

NOTE:

- 1) Parts A and B are compulsory
- 2) Part-C has Two Questions Q8 and Q9. Both are compulsory, but with internal choice
- 3) Any missing data may be assumed appropriately

Part – A

[Marks: 02 each]

Q1.

- a) Outline the role of education in technology advancement.
- b) Identify the reasons why reducing pollutants caused by power generation is important.
- c) List some electrical safety precautions that can be taken at commercial places.
- d) What is the relevance of ICT in Electrical Engineering education?
- e) Analyze the power scenario in rural India and the future of the Indian power sector.
- f) Evaluate the role of high efficiency photovoltaic cells in electrical technology.

Part – B

[Marks: 04 each]

- Q2.** Summarize the various theft control methods in the Indian power sector.
- Q3.** How has the advancement of technology impacted the role of education in society?
- Q4.** Illustrate how the use of renewable energy resources can promote sustainable development.
- Q5.** Evaluate the technical and commercial losses in the power sector and suggest ways to mitigate them.
- Q6.** Discuss the concept of Micro-grids and their application in the field of electrical engineering.

- Q7. Analyze the role of Central Electricity Authority (CEA) in promoting engineering education in society.

Part – C

[Marks: 12 each]

- Q8. Explain the differences between the traditional Gurukul system of education and the ICT-driven education system.

OR

Interpret the potential health hazards that can arise due to the lack of awareness and education about environmental issues.

- Q9. Evaluate the impact of the Energy Conservation Building Code on the implementation of green energy technologies.

OR

Discuss the future of the Indian power sector, with a critical assessment of its current state and potential challenges, and suggest potential solutions to improve its performance in rural India.
