

Total No. of Questions : 10]

SEAT No. :

**P3651**

[Total No. of Pages : 2

**[4959]-1143**

**B.E. (Information Technology)**

**c-GREEN IT - PRINCIPLES AND PRACTICES**

**(2012 Course) (Elective-IV) (End Semester) (Semester-II) (414464)**

*Time : 2½ Hours]*

*[Max. Marks : 70*

*Instructions to the candidates:*

- 1) Answer Q1 or Q2, Q3 or Q4, Q5 or Q6, Q7 or Q8, Q9 or Q10.*
- 2) Neat diagrams must be drawn wherever necessary.*
- 3) Figures to the right side indicate full marks.*
- 4) Assume suitable data if necessary.*

**Q1) a)** How software's impact the environment and the energy consumption of computing systems? [7]

b) How server farm and server virtualization helps in saving energy. [7]

OR

**Q2) a)** What are P and C states of processor? How does processor C-states save energy? [7]

b) What are the quality attributes used for developing sustainable software. [7]

**Q3) a)** How energy-efficient networking is related to objectives of Green IT. [6]

b) What are sustainable information technology systems (SITS)? How SITS can help in improving and leveraging environmental sustainability. [8]

OR

**Q4) a)** Why energy-efficient networking important in light of the increased number of renewable power plants? [6]

b) How Green IT strategies adopted by an organization evolve over time. [8]

**P.T.O.**

- Q5)** a) Explain sustainability from perspective of multilevel information problem. [7]  
b) How green IT strategy is developed by an organization. [7]

OR

- Q6)** a) Explain the source of greenhouse gas emissions within the organizations. [7]  
b) Discuss the organizational considerations in formulating enterprise green IT strategy. [7]

- Q7)** a) What are the sustainability dimensions of information technology. [7]  
b) What is enterprise resource planning (ERP) system? Explain an architecture of typical ERP system with respect to functional activities of an organization. [7]

OR

- Q8)** a) What factors will motivate an organization to green their IT activities in absence of any external pressure. [7]  
b) Which key technologies are to be considered for developing sustainable IT strategic plan? [7]

- Q9)** a) What are the steps involved in risk assessment of an information system. [7]  
b) What are the enabling effects of green IT-based software application. [7]

OR

- Q10)** a) How an organization can formulate, implement and manage its green practices. [7]  
b) What is enterprise architecture planning and how it is different from strategic planning. [7]

