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**Question Paper Code : 20397**

B.E/B.Tech. DEGREE EXAMINATIONS, APRIL/MAY 2022.

Seventh/Eighth Semester

Computer Science and Engineering

CS 8078 — GREEN COMPUTING

(Common to Computer and Communication Engineering/Information Technology)

(Regulations 2017)

Time : Three hours

Maximum : 100 marks

Answer ALL questions.

PART A — (10 × 2 = 20 marks)

1. Name any two Green IT metrics.
2. Define carbon footprint.
3. What do you mean by Green Assets? Give example.
4. Define data center.
5. What is teleporting?
6. Give the effect of material recycling.
7. Define Green Washing.
8. State the primary focus of ISO 14000 family,
9. What is "As Is" state?
10. Give the advantages of applying Green IT at home.

PART B — (5 × 13 = 65 marks)

11. (a) (i) Explain how business and environment are interplayed through IT. (6)  
(ii) Discuss about the specific ways in which Green IT strategy is beneficial to an organization. (7)

Or

- (b) (i) Brief about the major IT area that influences environment. (6)  
(ii) How to measure carbon footprints and operational cost in an organization? (7)
12. (a) (i) Draw the use case diagram and class diagram for Green Organizational Portal (GOP). (6)  
(ii) With an example explain how Green Business process is modelled. (7)

Or

- (b) (i) With a diagram explain the components of Green Enterprise Architecture. (6)  
(ii) Explain the phases involved in GIS development and deployment. (7)
13. (a) (i) State the effect of virtualization of IT systems. (6)  
(ii) Bring out the best ways for building an effective Green PC. (7)

Or

- (b) (i) With a neat diagram explain the components of Green Grid framework. (6)  
(ii) Compare and contrast Telecommuting and Teleconferencing. (7)
14. (a) (i) Discuss the roles and skill sets of Green-Collar workers. (6)  
(ii) Explain about the business and economic trends in Green ICT. (7)

Or

- (b) (i) Write a brief note on Greenhouse Gas protocol. (6)  
(ii) Brief about the economic and technical dimension on Green Enterprise Transformation (GET). (7)

15. (a) (i) Bring out the SWOT impact of AuPack in Green context. (6)  
(ii) Describe the impact of applying mobile technologies in GET with respect to the stakeholders of hospital. (7)

Or

- (b) (i) Explain how Green Enterprise Transformation (GET) is enacted for ZeeTel. (6)  
(ii) Discuss about the steps involved in developing a Hospital's ERBS. (7)

PART C — (1 × 15 = 15 marks)

16. (a) With a neat diagram explain the integrated model for auditing Green IT system for an educational Institution.

Or

- (b) Detail the infrastructure requirements for building an effective Data center for an educational Institution.
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