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S.No. 3105

P 22 ITE 1 C

(For candidates admitted from 2022–2023 onwards)

M.Sc. DEGREE EXAMINATION, NOVEMBER 2022

Subject Information Technology — Elective

GREEN COMPUTING

Time : Three hours

Maximum : 75 marks

SECTION A — (20 marks)

Answer ALL questions

I. (A) Multiple Choice questions (5 × 1 = 5)

1. Building and facilities impact the long term strategic approach to

- (a) carbon reduction (b) carbon emission
(c) carbon cost (d) carbon footprint

2. _____ deals with carbon data, storage, transmission, and its interfaces with other data.

- (a) green security (b) green it
(c) green policy (d) green computing

3. XML stands for _____.

- (a) eXtensible Margin Language
(b) Xtensible Markup Language
(c) eXtensible Markup Language
(d) Xtensible Margin Language

4. Sustainable Development focuses on more use of:

- (a) renewable resources
(b) abiotic resources
(c) agricultural resources
(d) natural resources

5. LEED means _____.

- (a) Leadership in Energy and Efficiency Design.
(b) Leadership in Energy and Efficiency Document.
(c) Leadership in Energy and Environmental Design.
(d) Leadership in Energy and Environmental Document.

(B) Fill in the blanks (5 × 1 = 5)

6. _____ anything that has social, environmental and/or economic value that is owned by an individual, business, family or community. What are the properties of ontology?

7. Who created green computing? _____.

8. _____ initiatives aim to make all software and hardware more environmentally friendly in view of working toward a more sustainable future.

9. Using green technologies that are capable of lessening carbon footprint can lead to _____.

10. What is stands for EPEAT? _____.

II. Answer the following questions (5 × 2 = 10)

11. What is meant by 'green washing'?

12. Define Desktop Computer.

13. What is Cost reduction?

14. Differentiate between green IT and green computing.

15. What are the consequences of noncompliance?

SECTION B — (5 × 5 = 25)

Answer ALL questions, choosing either (a) or (b)

16. (a) Describe the entire life cycle of Greening computer's.

Or

(b) Discuss the philosophy, pros and cons of carbon trading.

17. (a) Discuss a range of solutions to address this problem and highlights best practices in each life cycle phase.

Or

(b) Differentiate between SSDs and HDDs.

18. (a) Discusses the roles of IT and IS in greening enterprises.

Or

(b) Explain the Summary of various information system categories and environmental activities by organisational function.

19. (a) Describe the components necessary for successfully managing green IT.

Or

- (b) Explain various levels of Enterprise architecture planning.
20. (a) Explain various challenges the conventional wisdom on self-regulation on environmental issues.

Or

- (b) Differentiate between RoHS and REACH.

SECTION C — (3 × 10 = 30)

Answer any THREE questions

21. Discuss how one can use social media, IT and the Internet to create awareness of environmental problems and promote green initiatives among individuals and businesses.
22. Describes software methodologies, designs and software development tools that help to improve the energy efficiency of application software.

23. Briefly discuss and detail about Environmental Management Information Systems.

24. Illustrates how to demonstrate a strong return on investment on green IT implementation and techniques of successful metrics programme.

25. Distinguish between for the following

- (a) Green Computing and Cloud Computing.
(b) Green Data Center and Green Network.
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