STELLA MARIS COLLEGE (AUTONOMOUS) CHENNAI - 600 086
(For candidates admitted during the academic year 2015 – 16 and thereafter)

SUBJECT CODE: 15CS/MC/ET64

B. C. A. DEGREE EXAMINATION, APRIL 2019
SIXTH SEMESTER

COURSE : MAJOR CORE
PAPER : EMERGING TRENDS IN INFORMATION TECHNOLOGY
TIME : 3 HOURS MAX. MARKS: 100

SECTION A

ANSWER ALL QUESTIONS: (20 X 1 = 20)
Choose the best answer:

1. A service that concentrates on hardware follows the _____ as a Service model.
   a. IaaS b. CaaS c. PaaS d. All of the mentioned

2. What does it mean when a public cloud provider has an availability of five nines?
   a. No downtime
   b. Unavailable for potentially five minutes a day
   c. Unavailable for potentially five minutes a month
   d. Unavailable for potentially five minutes a year

3. _____are the biggest energy savings in the cloud.
   a. Deploying virtualization
   b. Improving application delivery
   c. Upgrading storage
   d. Optimizing cooling systems

4. _____is the first step in data center energy-efficiency planning.
   a. Cut reliance on nuclear power
   b. Cut reliance on coal
   c. Evaluate current data center energy usage
   d. Eliminate the need for a central, uninterruptible power supply

5. _____are the different features of Big Data Analytics.
   a. Open-Source
   b. Scalability
   c. Data Recovery
   d. All the above

6. According to analysts, for what can traditional IT systems provide a foundation when they're integrated with big data technologies like Hadoop?
   a. Big data management and data mining
   b. Data warehousing and business intelligence
   c. Management of Hadoop clusters
   d. Collecting and storing unstructured data

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7. A computer environment where virtually every object has processing power together with wireless or wired connections to a global network is _____.
    a. Mobile Portal
    b. Mobile Computing
    c. Voice Portal
    d. Pervasive Computing

8. Networks of interconnected, battery-powered, wireless sensors placed in the physical environment is/are called _____.
    a. Wireless Sensor Networks (WSN)
    b. Wireless Access Point
    c. Personal Area Network (PAN)
    d. Wireless Local Area Network (WLAN)

9. A sensor network is generally composed of sensor nodes, a networking infrastructure, computing resources and _____.
    a. base station
    b. node
    c. protocol
    d. antenna

10. _____ are the characteristics that if exist then the mobile computing is also called pervasive computing.
    a. Transparency
    b. Application aware adaptation
    c. Environment sensing ability
    d. All of the above

Fill in the blanks:

11. AWS stands for _____.
12. _____ is a software delivery model that provides access to applications through the Internet as a Web-based service.
13. _____ is an arbitrary object from our everyday environment, such as a chair, a hammer, a car, or an umbrella—augmented with information technology.
14. _____ in general can try to disable services, or to deplete service providers.
15. _____ is a network that is setup, literally, for a specific purpose, to meet a quickly appearing communication need.
16. A _____ combines automated search and display of consumer feedback expressed publicly on the social media.
17. _____ recommends an activity based on the customer's latest experience with the product.
18. _____ provide raw material for detecting traffic patterns.
19. _____ operating system is the greenest.
20. When the screen is _____ colour, it consumes less energy.

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SECTION B

ANSWER ALL THE QUESTIONS: (5 X 2 = 10)

21. What is a Cloud?
22. Define mobile agent.
23. Name any four denial of service attacks and also mention in which layer it happens.
24. What is PCFE?
25. What is green computing?

SECTION C

ANSWER ANY EIGHT OF THE FOLLOWING QUESTIONS: (8 X 5 = 40)

26. What are the advantages of using cloud computing?
27. Briefly explain essential characteristics that identify a PaaS solution.
28. What are the limitations of intelligent systems?
29. Discuss about Smart Car and Smart Library.
30. Briefly explain the differences between MANETs and WSNs.
31. Discuss about the three types of mobility
32. How big data analysis can help for online advertising?
33. What are location-based services? Explain its application to improve customer satisfaction.
34. Briefly explain four domains of green computing
35. What are the advantages of green computing?

SECTION D

ANSWER ANY THREE OF THE FOLLOWING QUESTIONS: (3 X 10 = 30)

36. Explain the different types of clouds.
37. Discuss the categories of security threats to an agent platform.
38. Discuss about multihop networks.
39. Explain the data analytics project life cycle with suitable example.
40. How do you green your data centers?

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