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Total No. of Pages : 3

Final Year B.Tech. (Computer Science and Engineering) (Part-IV)
(Semester - VII) (CBCS) Examination, January - 2023
SOFTWARE TESTING AND QUALITY ASSURANCE
Sub. Code : 83860

Day and Date : Saturday, 14 - 01- 2023

Total Marks : 70

Time : 10.30 a.m. to 01.00 p.m.

- Instruction :**
- 1) All questions are compulsory.
 - 2) Figures to the right indicate full marks.
 - 3) Assume suitable data if necessary.

Q1) Solve MCQs. (1 Mark Each)**[14]**

- a) Which objective is most difficult to achieve?
 - i) Execute every statement of a program at least once
 - ii) Execute every branch statement of a program at least once
 - iii) Execute every path of a program at least once
 - iv) Execute every condition of a branch statement of a program at least once
- b) Software should have
 - i) Program + operating system + compiler
 - ii) Set of programs + operating system
 - iii) Programs + documentation + operating procedures
 - iv) None of the above
- c) One fault may lead to

i) One failure	ii) Many failures
iii) No failure	iv) All of the above
- d) In walkthroughs, who presents the document to the members?

i) Author	ii) Moderator
iii) Customer	iv) Developer
- e) Which is not a characteristic of a good SRS?

i) Correct	ii) Complete
iii) Consistent	iv) Brief

P.T.O.

- f) Peer reviews are also known as?
 - i) Inspections
 - ii) Walkthroughs
 - iii) Informal reviews
 - iv) Formal reviews
- g) Which is not an accepted strategy for data validity?
 - i) Accept only known valid data
 - ii) Reject known bad data
 - iii) Sanitize all data
 - iv) Reject non-effective data
- h) Which test cases are easy to identify?
 - i) Fault revealing
 - ii) Modification revealing
 - iii) Modification traversing
 - iv) Bug revealing
- i) Risk should include
 - i) Probability of occurrence of a problem
 - ii) Impact of that problem
 - iii) Test cases
 - iv) (i) and (ii) both
- j) Which of the following testing technique can be used in order to determine the validation test?
 - i) Black-box Testing
 - ii) White-box Testing
 - iii) Yellow- box Testing
 - iv) All of the above
- k) Automated test data generation is used to generate
 - i) Test data
 - ii) Test cases
 - iii) Test suite
 - iv) All of the above
- l) Which one is not a load testing metric?
 - i) Number of concurrent users
 - ii) Wait Time
 - iii) Total links on a page
 - iv) Throughput
- m) Form based testing does not check
 - i) Data validations
 - ii) Hyperlinks on each page
 - iii) Mandatory fields
 - iv) Navigation amongst fields
- n) Compatibility matrix is created in
 - i) Security testing
 - ii) Database testing
 - iii) Performance testing
 - iv) Browser testing

Q2) Solve any 2 of the following (7 Marks Each) **[14]**

- a) What are the limitations of testing? Discuss with the help of examples.
- b) What is the purpose of preparing a checklist? Discuss with the help of a checklist?
- c) What is regression testing? Discuss various categories of selective re-test problem.

Q3) Solve any 2 of the following (7 Marks Each) : **[14]**

- a) What are logical bugs? How are they different from syntax bugs?
- b) Design a checklist for user documentation verification?
- c) What are various strategies for data validity? Discuss with the help of an example?

Q4) Solve any 2 of the following (7 Marks Each) : **[14]**

- a) Describe Java Testing Tools in details.
- b) What are the Seven Steps for Testing Process.
- c) Explain the significance of virus and firewall testing.

Q5) Solve any 2 of the following (7 Marks Each) **[14]**

- a) List and explain some Automation and Testing Tools.
- b) Describe Verification Testing, Validation Testing.
- c) List the advantages of automated test data generation over manual test data generation.



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B. Tech. (Computer Science and Engineering) (Part - IV)
(Semester - VII) (CBCS) Examination, March - 2023

CLOUD COMPUTING

Sub. Code : 83857

Day and Date : Friday, 16- 06- 2023

Total Marks : 70

Time : 02.30 p.m. to 05.00 p.m.

- Instructions:**
- 1) All questions are compulsory.
 - 2) Assume suitable data wherever necessary.
 - 3) Figures to the right indicate full marks.

Q1) Solve MCQs. (1 Mark Each)

- i) How many service models are primarily present in the Cloud?
 - a) 1
 - b) 2
 - c) 3
 - d) 4
- ii) _____ describes a distribution model in which applications are hosted by a service provider and made available to users.
 - a) IAAS - Infrastructure-as-a-Service
 - b) PaaS - Platform-as-a-Service
 - c) SaaS - Software-as-a-Service
 - d) All the answers are true
- iii) What is the IaaS service provider?
 - a) EC2
 - b) EC1
 - c) EC10
 - d) hybride
- iv) _____ allows you to leverage the seemingly infinite compute resources of cloud infrastructure.
 - a) IaaS
 - b) SaaS
 - c) CaaS
 - d) PaaS
- v) Which of the following is a type of cloud computing service?
 - a) Software-as-a-Service (SaaS)
 - b) Software-and-a-Server (SaaS)
 - c) Service-as-a-Software (SaaS)
 - d) Software-as-a-Server (SaaS)

P.T.O.

- vi) The example of IaaS service model.
- a) Cloudera
 - b) Azure
 - c) AWS
 - d) All of above
- vii) Google Apps is a suite of cloud computing _____ applications that includes e-mail (Gmail), Organizer (Google Calendar), Word Processing documents (Google Docs), and others.
- a) IaaS
 - b) PaaS
 - c) SaaS
 - d) None of the Above
- viii) Which of the following is among the primary uses of cloud computing?
- a) security
 - b) data storage
 - c) data privacy
 - d) operational cost
- ix) Which of these is not a major type of cloud computing usage?
- a) Platform as a Service
 - b) Software as a Service
 - c) Internet as a Service
 - d) Infrastructure as a Service
- x) _____ is a complete operating environment with a user interface and applications.
- a) IaaS
 - b) SaaS
 - c) PaaS
 - d) All the answers are true
- xi) _____ provides virtual machines, virtual storage, virtual infrastructure and other hardware assets.
- a) IaaS
 - b) SaaS
 - c) PaaS
 - d) All the answers are true
- xii) Which of the following has three delivery models: Infrastructure as a Service, Platform as a Service and Software as a Service,
- a) cloud provider
 - b) cloud service
 - c) cloud enabler
 - d) none of the Above
- xiii) In a _____ cloud computing environment the organization itself provides and manages some resources locally and the remaining other resources provided externally.
- a) public
 - b) hybrid
 - c) private
 - d) all of the Above
- xiv) _____ cloud supports the utmost scalability and effectiveness for a business.
- a) public
 - b) hybrid
 - c) private
 - d) all of the Above

Q2) Solve any 2 of the following:

(7 Marks Each)

- a) Explain characteristics of cloud computing.
- b) Explain Platform as a Services (PaaS).
- c) Explain benefits of virtualization.

Q3) Solve any 2 of the following:

(7 Marks Each)

- a) Describe implementation levels of virtualization.
- b) Explain Infrastructure as a Services (IaaS).
- c) Differentiate between cloud computing and grid computing.

Q4) Solve any 2 of the following:

(7 Marks Each)

- a) Describe different approach to virtualization.
- b) Explain case study Amazon EC2.
- c) Explain Service level Agreements (SLAs).

Q5) Solve any 2 of the following:

(7 Marks Each)

- a) Describe features of Google computing engine.
- b) Explain Service Oriented Architecture (SOA).
- c) Explain data privacy and security issues in cloud computing.



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**Fourth Year B. Tech. (Computer Science and Engineering)
(Semester - VII) (CBCS) Examination, December - 2023**

CLOUD COMPUTING

Sub. Code : 83857

Day and Date : Friday, 01- 12 - 2023

Total Marks : 70

Time : 10.30 a.m. to 1.00 p.m.

- Instructions :**
- 1) All Questions are compulsory.
 - 2) Assume suitable data wherever necessary
 - 3) Figures to the right indicate full marks.

Q1) Solve MCQ's. (1 Mark Each)

[14×1=14]

- a) How many service models are primarily present in the Cloud?
- | | |
|--------|-------|
| i) 1 | ii) 2 |
| iii) 3 | iv) 4 |
- b) _____ is a system of networked machine aggregation hardware where information is stored on multiple virtual servers, rather than being hosted on a single hard server.
- | | |
|--------------------|-----------------------|
| i) Cloud | ii) Cloud storage |
| iii) Cloud Service | iv) None of the above |
- c) Which VMs does not simulate the underlying hardware.
- i) Hardware-Assisted Virtualization
 - ii) Full Virtualization
 - iii) Para Virtualization
 - iv) Network Virtualization

P.T.O.

- d) Which service is a cloud computing infrastructure that creates a development environment upon which application may be build.
- i) Infrastructure
 - ii) Platform
 - iii) Service
 - iv) All of above
- e) Which of the following is among the primary uses of cloud computing?
- i) Security
 - ii) Data storage
 - iii) Data privacy
 - iv) Operational cost
- f) Which of the following service providers offers less security?
- i) SaaS
 - ii) PaaS
 - iii) IaaS
 - iv) None of the above
- g) Which of the following provides development frameworks and control structures?
- i) IaaS
 - ii) SaaS
 - iii) PaaS
 - iv) All the answers are true
- h) Which of the following has three delivery models: Infrastructure as a Service, Platform as a Service, and Software as a Service.
- i) Cloud provider
 - ii) Cloud service
 - iii) Cloud enabler
 - iv) None of the above
- i) Which of the following is the deployment model?
- i) Public
 - ii) Private
 - iii) Hybrid
 - iv) All of the mentioned

- j) _____ group focuses on standards and standards-based architecture for sharing information between clouds.
- i) Working Group on Information Sharing
 - ii) Security
 - iii) Clouds
 - iv) All above
- k) Cloud storage service allows storing remotely made available locally.
- i) True
 - ii) False
- l) In _____ concept the data are separated from the actual desktop and stored on a server in a data centre.
- i) Backup
 - ii) Virtualisation
 - iii) Media
 - iv) None of above
- m) Find risk of cloud computing?
- i) No troubleshooting issues
 - ii) Full control over the data
 - iii) Storing data without control
 - iv) No government intrusion
- n) Find out disadvantage of cloud?
- i) No worries about running out of storage
 - ii) Easier to maintain a cloud network
 - iii) Immediate access to computing resources
 - iv) Paying only for what you use

Q2) Solve any 2 of the following. (7 Marks Each)

[2×7=14]

- a) Describe Pros and Cons of cloud computing.
- b) What are deployment models in cloud?
- c) Explain binary translation with full virtualization.

Q3) Solve any 2 of the following.

[2×7=14]

- a) Explain recent trends in computing.
- b) Explain role of web services.
- c) Explain virtualization at the OS level.

Q4) Solve any 2 of the following.

[2×7=14]

- a) Explain virtualization resources.
- b) Explain how data authentication done in cloud computing.
- c) Explain case study OpenStack.

Q5) Solve any 2 of the following.

[2×7=14]

- a) Explain Hypervisors.
- b) How cloud manage large scale data processing.
- c) What are the advantages of Microsoft azure platform.

