

**SOFTWARE TESTING [15CS61T]**

SI No.	Questions	Marks	Year
<b>UNIT – 1 [ Introduction and Fundamentals of Testing ]</b>			
1.	What is the power of software? List any two challenges in software development	5	May 2018/Nov 2019
2.	Write a note on software fiasco. Explain any one fiasco.	5	May 2018
3.	What are the reasons for software failure? What is the solution?	10	May 2018
4.	What is Software Testing? Differentiate between debugging and bebugging.	5	Dec 2018
	Differentiate between debugging and bebugging.	5	May 2019
5.	List the tasks handled by testing professionals.	5	Dec 2018
6.	List advantages and disadvantages of in-house testing and outsourcing.	10	Dec 2018/ May 2019
7.	Explain the following: i.TestOracle ii. Psychology ofTesting.	10	Dec 2018/Nov 2019
8.	What criteria are used to declare that the testing is complete?	5	May 2019
<b>UNIT – 2 [ Testing Levels and Types ]</b>			
1.	What is Performance Testing/Load Testing? Explain	5	May 2018
2	a. Explain Testing andDebugging	5	May 2018/Nov 2019
	b. Explain Testing choices	5	
3.	Explain levels of testing with diagram. Explain each level in brief.	10	May 2018/ May 2019
	Explain levels of testing and corresponding test plans with a neat diagram.	10	Dec 2018/Nov 2019
4.	a. Distinguish between Alpha Testing and Beta Testing	5	May 2018/ May 2019
	b. Write a note on Mutation Testing	5	
5.	Explain Beta Testing in brief.	5	Dec 2018
6.	Explain the following:	5	Dec 2018
	i. RegressionTesting		
	ii. Gorilla Testing		
	Explain Regression Testing.	5	May 2019
7.	What is structural testing? Explain structural testing at module level and system level.	10	Dec2018/ May 2019
8.	Differentiate between Positive and negative testing.	5	May 2019
9.	Explain specifications based testing and boundary value analysis.	10	May 2019/Nov 2019
<b>UNIT – 3 [ Static Testing Techniques ]</b>			
1.	Define Static Testing. What are the advantages of static testing?	5	May 2018/Dec 2018/Nov 2019
2.	What do you mean by manual reviews? Explain formal review process steps	10	May 2018
3.	What is coding guidelines? Explain C-coding guidelines	10	May 2018/ May 2019
4.	Explain code optimization guidelines.	5	Dec 2018
	Explain code optimization guidelines during code review.	5	May 2019
5.	Discuss the following: i.Informalreviews ii.Walkthroughs	10	Dec 2018/Nov 2019
6.	Explain different checklist in static testing.	10	May 2019
<b>UNIT – 4 [ Dynamic Testing and Test case design Techniques ]</b>			
1.	Explain Experience-based Test Case Design Techniques	5	May 2018

2.	Explain Black Box Test Case Design Techniques such as: a. Specifications based testing with examples b. Boundary value analysis with an example	10	May 2018/Dec 2018
3.	How do you document the test cases? List down Test Documentation Standards	10	May 2018/Dec 2018/Nov 2019

4.	(a) Describe the incident report. (b) Explain how to design test case.  Describe the incident report.	10  5	Dec 2018  May 2019
5.	Explain the following: (a) White box testing (b) Black box testing	10	May 2019/Nov 2019
<b>UNIT – 5 [ Managing the Testing Process ]</b>			
1.	Explain the two options for managers viz: a. Buying COTS software b. Software Development	5	May 2018
2.	Explain Defect tracking and classify defects	5	May 2018/Dec 2018
3.	Explain the activities in planning phase with a neat diagram	10	May 2018
4.	Explain with a diagram change impact analysis in configuration management.	10	Dec 2018/ May 2019
5.	(a) What are the responsibilities of test manager?  (b) Explain defect tracking in brief.	10	Dec 2018
6.	Explain the following: (a) COTS software (b) Defect tracking	10	May 2019

<b>UNIT – 6 [ Software Testing Tools and Code of Ethics for Software Professionals ]</b>			
1.	Write a flow-chart to introduce tools in testing process.  Explain how tools are introduced in testing process in an organization with the help of diagram.	5  5/10	May 2018  Dec 2018/ May 2019
2.	Explain code of ethics for software professionals.	5	May 2018
3.	What is the use of testing tools? Describe the classification of testing tools	10	May 2018/Nov 2019
4.	Mention criteria for selecting testing tools.	5	Dec 2018/Nov 2019
5.	Explain cost-schedule-milestone chart tool to review testing process.	5	May 2019
6.	Explain the risk associated with tools.	5	May 2019
7.	Write a note on professional ethics.	5	May 2019

NETWORK SECURITY AND MANAGEMENT [15CS62T]

Sl No.	Questions	Marks	Year
<b>UNIT – 1 [ Introduction and Cryptography ]</b>			
1.	Explain in detail various security attacks.	5	May 2018
2.	Explain essential ingredients of symmetric cipher with a neat diagram	5	May 2018
3.	Explain CBC mode operations with neat diagram	5	May 2018
4.	List design objectives of HMAC	5	May2018/Dec 2018/ May 2019
5.	Explain with a neat diagram Feistel Cipher structure and its design elements	10	May 2018/Dec 2018
6.	Explain RSA public key encryption algorithm with an example	10	May 2018/ May 2019
7.	Define the categories of passive and active attacks.	5	Dec 2018/Nov 2019
8.	Explain with a neat diagram stream cipher structure and list its important design considerations.	10	Dec 2018
9.	Write the public key encryption structure and explain it with a neat diagram.	10	Dec 2018
10.	Explain OSI security architecture.	5	May 2019
11.	Explain the three key objectives of computer security.	5	May 2019
12.	What are the categories of security services? Explain.	5	May 2019
13.	Explain CRT mode operations with neat diagram.	5	May 2019
14.	Explain Network security model with a neat diagram.	10	May 2019
<b>UNIT – 2 [ Hardware and Software Security ]</b>			
1.	Explain Pretty Good Privacy (PGP)	5	May 2018
2.	Explain Virtual Private Network (VPN) and its types with a neat diagram	10	May 2018/ May 2019
3.	Describe trusted operating system.	5	Dec 2018
4.	Explain the various hardware securities (smart card and biometrics)	10	Dec 2018
5.	Write a note on S/MIME.	5	May 2019
<b>UNIT – 3 [ Intrusion Detection System and Firewalls ]</b>			
1.	Define IDS. List the functions performed by IDS	5	May 2018/Dec 2018
2.	Mention the limitations of firewall.	5	May 2018/ May 2019
3.	Write a note on: a. Proxyfirewall b. Personalfirewall	10	May 2018
4.	Explain in detail malicious software and its types	10	May 2018
5.	Mention the different types of firewalls.	5	Dec 2018
6.	Write a note on Host based IDS.	10	Dec 2018/ May 2019
7.	Explain host dependent programs and host independent programs.	10	Dec 2018
8.	Describe the classification of IDS.	5	May 2019
9.	With a neat diagram explain packet filtering firewall and its importance.	10	May 2019
<b>UNIT – 4 [ Wireless Security ]</b>			
1.	List and explain various WLAN configurations	5/10	May 2018/Dec 2018/ May 2019

2.	Explain with diagram WAP protocol architecture	10	May 2018/Dec 2018/ May 2019
3.	Explain how to safeguard wireless LANs.	5	Dec 2018
<b>UNIT – 5 [ Web Security ]</b>			
1.	List the parameters of SSL session state	5	May 2018/ May 2019
2.	Describe SSL record protocol with a neat diagram	10	May 2018/Dec 2018/ May 2019
3.	Explain flow of transaction in SET with diagram.	10	May 2018
	Describe the SET components and their relationships.	10	May 2019
4.	List the parameters of SSL connection state	5	Dec 2018
5.	Describe web traffic security approaches.	10	Dec 2018
<b>UNIT – 6 [ Security and Law, Internet Governance and Email Policy ]</b>			
1.	Describe Information Technology (IT) Act 2000	5	May 2018/ May 2019
2.	Explain how an e-mail system works with a diagram	10	May 2018/Dec 2018
3.	Write a short note on Indian Penal Code.	5	Dec 2018
4.	What are the initiatives undertaken by Government to upgrade security standards?	10	May 2019

**CLOUD COMPUTING [15CS63BT]**

SI No.	Questions	Marks	Year
<b>UNIT – 1 [Introduction to Cloud computing ]</b>			
1.	List the different benefits offered by cloud computing	5	May 2018
2.	Explain the characteristics of cloud computing.	5/10	May 2018/Dec 2018/Nov 2019
3.	Writs advantages and disadvantages of cloud based business model	10	May 2018
4.	Explain the evolution of cloud computing.	5	Dec 2018
5.	Explain the business and its perspectives of cloud.	10	Dec 2018
6.	State the advantages of cloud computing.	5	May 2019
7.	List the limitations of cloud computing.	5	May 2019
8.	Describe the essentials of cloud computing.	10	May 2019/Nov 2019
9.	Explain the key properties of cloud computing according to the Google perspective.	10	May 2019
	Bring out any 5 properties of cloud computing.	5	Nov 2019
10.	List the uses of Cloud computing.	5	Nov 2019
11.	Write the disadvantages of cloud computing.	5	Nov 2019
12.	Define cloud scalability and explain the categories of scalability.	5	Nov 2019
13.	Describe cloud application architecture with the block diagram.	10	Nov 2019
<b>UNIT – 2 [ Cloud models ]</b>			
1.	Discuss about Hybrid cloud Model	5	May 2018
2	Compare public cloud verses private cloud	5	May 2018/Dec 2018/May 2019
3.	Explain the cloud infrastructure models.	5	May 2018/Dec 2018/May 2019
4.	Explain the two main sections of cloud computing architecture.	10	May 2018/Dec 2018
5.	Write the advantages of cloud computing architecture.	5	Dec 2018/May 2019
6.	Explain public and private cloud models.	5	Nov 2019
<b>UNIT – 3 [ Cloud services ]</b>			
1.	Explain Storage as a Service (StaaS)	5	May 2018
2.	Write about the different forms of cloud-based testing and list the advantages of Testing as a Service (TaaS).	10	May 2018
	Summarize the different forms of testing related to cloud.	10	May 2019
3.	Explain database as service with a neat diagram and list its advantages	10	May 2018
4.	Define Cloud service. List the main features of cloud services.	5	Dec 2018
5.	Describe briefly importance of Platform as a service. (PaaS)	5	Dec 2018
6.	Mention the advantages of cloud services.	5	Dec 2018
7.	Describe briefly the integration platform as a service.	5	Dec 2018/May 2019
8.	Summarize the different forms of testing related to cloud.	10	Dec 2018
9.	Explain platform as a service(PaaS) with a neat diagram and listits advantages.	10	May 2019
10.	Explain process as a service with block diagram.	5	Nov 2019
11.	Describe application as a service(SaaS) with block diagram and list its 6 advantages.	10	Nov 2019
12.	What is Infrastructure as a service and what are its advantages and disadvantages?	10	Nov 2019
<b>UNIT – 4 [ Software plus Services ]</b>			

1.	Explain about cast iron cloud	5	May 2018/ Dec 2018/May 2019
2.	List the main functions in Google Map Reduce. Explain with neat diagram	10	May 2018/May 2019
3.	Explain the Hadoop Distributed File System (HDFS) architecture with the help of diagram	10	May 2018/ Dec 2018/May 2019
4.	Discuss about software plus services in brief.	5	Dec 2018/Nov 2019
5.	Explain mobile device integration.	5	Dec 2018
6.	Describe Hadoop Map Reduce architecture with block diagram.	10	Nov 2019
7.	Describe cast iron cloud and Bungle connect.	10	Nov 2019
<b>UNIT – 5 [ Virtualization for cloud ]</b>			
1.	Describe virtual machine and its types with diagram.	10	May 2018/Dec 2018
2.	List the pros and cons of virtualization.  Explain the pros of virtualization.	10  5	May 2018/Dec 2018/Nov 2019  May 2019
3.	Describe the desktop virtualization. Discuss its advantages and disadvantages	10	May 2018
4.	Describe server virtualization with block diagram.	10	Dec 2018
5.	Describe the two types of virtualization architectures.	10	May 2019/Nov 2019
6.	Explain the following: (a) System VirtualMachine (b) Process VirtualMachine	10	May 2019
7.	Define virtualization of cloud and discuss what makes virtualization idle for cloud computing.	5	Nov 2019
<b>UNIT – 6 [ Examples of Cloud Computing ]</b>			
1.	Explain the various types of clouds	5	May 2018/Dec 2018
2.	Explain the Aneka hybrid cloud implementation.  List the design and implementation guidelines of Aneka hybrid cloud.	5/10  5	May 2018/ Dec 2018/May 2019 Nov 2019
3.	Illustrate the autonomic cloud bursting behaviour in COMET cloud.  Describe automatic cloud bursting with block diagram.	10  10	May 2018/May 2019  Nov 2019
4.	Explain the overview of COMET cloud based applications.	5	Dec 2018
5.	Explain Aneka Resource Provisioning Service.  Explain Aneka Resource Provisioning Service with block diagram.	10  5	May 2019  Nov 2019

