

DEPARTMENT OF MATHEMATICS
ANNA UNIVERSITY, CHENNAI
M.Sc. (INTEGRATED) COMPUTER SCIENCE & INFORMATION TECHNOLOGY
XT7851 – Cloud Computing
Assessment – I
Semester - VIII

Date : 07.02.2020

Time : 1 ½ Hrs.
Marks : 50

Part – A (5 x 2 = 10)

1. What is cloud computing?
2. Define the term Cloud Providers.
3. What is utility computing?
4. Define VMM.
5. What does the acronym XaaS stands for?

Part – B (5 x 8 = 40)

Answer Any FIVE questions

6. Explain architecture of cloud in detail with neat diagram.
7. Explain characteristics of cloud computing in detail.
8. Explain cloud deployment models in detail.
9. Explain in detail about IaaS.
10. Discuss in detail about PaaS.
11. Define virtualization. Explain its types in detail.
12. Explain in detail about different actors in cloud computing.

DEPARTMENT OF MATHEMATICS

- VIII SEMESTER- MSc 5 YEARS INTEGRATED IT& CS COURSES

XT7086 TOTAL QUALITY MANAGEMENT

ASSESSMENT TEST-I

TIME: 90mts

MAX MARKS: 50

ANSWER ALL

PART -A

(5X2=10)

1. Define Quality
2. What is trilogy?
3. Discuss the need for quality
4. State any four quality Gurus.
5. What is mission?..

PART - B

(2X12=24)

- 6) a) i) Mention the 14 principles of quality framed by Deming(9)''
ii) Explain Deming wheel (3).

OR

- b) Analyse the various dimensions of product and service quality
7. (a) Enumerate the complaint handling procedures.

OR

- b)i) Discuss the barriers to TQM (8).
ii) Sketch the TQM frame work(4).

PART-C

(1X16=16)

8. State in detail about the cost of quality

ANNA UNIVERSITY , DEPARTMENT OF MATHEMATICS
M.Sc (5 YEARS) COMPUTER SCIENCE & INFORMATION TECHNOLOGY
XC 7851 - NUMERICAL METHODS - VIII SEMESTER

(REGULATIONS 2015)

ASSESSMENT TEST - I

Time : 90 Minutes

Date : 28.01.2020

Answer All Questions

PART - A

Max. Marks : 50

(5 x 2 = 10)

1. What is the condition for the convergence of Iteration method.
2. Write down the Newton's iterative formula to find \sqrt{N} where N is a positive integer.
3. State the conditions for convergence of Gauss - Seidal and Jacobi's methods.
4. Explain the terms interpolation and extrapolation.
5. Find the divided differences of $f(x) = x^3 + x + 2$ for the arguments 1, 3, 6, 11.

PART - B

(8 + 16 + 16 = 40)

6. Using Newton's method, find a positive root of the given equation correct to four decimal places $x \log_{10} x - 1.2 = 0$. (8)
- 7.a.i). Find a positive root of $3x - \sqrt{1 + \sin x} = 0$ by using iteration method. (8)
- ii). Find the inverse of the matrix $A = \begin{bmatrix} 3 & -1 & 1 \\ -15 & 6 & -5 \\ 5 & -2 & 2 \end{bmatrix}$ by using Gauss Jordan method. (8)

(OR)

- b.i). Solve the following system of equations by Gauss - Seidel method.
 $8x - y + z = 18$, $2x + 5y - 2z = 3$, $x + y - 3z = -6$. (8)
- ii). Use Newton's divided difference formula, to find the polynomial equation for

x :	-1	0	1	3
y :	2	1	0	-1

(8)
- 8.a.i). Using Newton's formula find the value of $\sin 38$ from the given data. (8)

x :	0	10	20	30	40
$\sin x$:	0	0.17365	0.34202	0.5	0.64279
- ii). Use Lagrange's interpolation formula , to find $f(4)$ given that (8)
 $f(0) = 2$, $f(1) = 3$, $f(2) = 12$, $f(15) = 3587$.

(OR)

- b.i). Solve the following system of equations by Gauss - Jacobi method.
 $8x + y + z = 8$, $2x + 4y + z = 4$, $x + 3y + 5z = 5$. (8)
- ii). Solve the following system of equations by Gauss elimination method. (8)
 $2x + 6y - z = -12$, $5x - y + z = 11$, $4x - y + 3z = 10$.

~~===== x ===== x ===== x =====~~

M.Sc. Integrated(Full Time) INTERNAL ASSESSMENT - 1
COMPUTER SCIENCE & INFORMATION TECHNOLOGY
Eighth Semester
XC7851 – Machine Learning Techniques
(Regulation 2015)

Time:90 min

Max.Marks:50
(5 x 2 = 10)

PART – A
Answer **ALL** Questions

1. What are the different types of learning?
2. What is the need for linear basis functions?
3. Define decision boundaries.
4. State the 'no free lunch theorem'.
5. Mention the drawback of postpruning.

PART – B
Answer **ANY FOUR** Questions

(4 x 4 = 16)

6. Give a brief account on polynomial curve fitting.
7. Differentiate between parametric and non-parametric model.
8. List out the steps involved in KNN.
9. How is Bayesian Model comparison done?
10. Write short notes on probabilistic generative models.
11. Derive the overall network function of a feed-forward neural network.

PART – C
Answer **ANY THREE** questions
(Q13 is compulsory)

(3 x 8 = 24)

12. Write in detail about bias-variance decomposition.
13. Discuss about discriminant functions for multiple classes.
14. Explain back-propagation in detail with suitable illustration.
15. Write in detail about probabilistic discriminative models.

DEPARTMENT OF MATHEMATICS
ANNA UNIVERSITY, CHENNAI
M.Sc. (INTEGRATED) COMPUTER SCIENCE & INFORMATION TECHNOLOGY
Semester : VIII
XC7852 – Principles of Compiler Design
Assessment – I

Date : 30.01.2020

Time : 1 ½ Hrs.
Marks : 50

Part – A (5 x 2 = 10)

1. What is the difference between a compiler and an interpreter?
2. What are the two processes of Lexical Analyzer?
3. Define Context Free Grammar.
4. What are tokens and lexemes?
5. Eliminate immediate left recursion from the following grammar.

$$E \rightarrow E + T | T, \quad T \rightarrow T * F | F, \quad F \rightarrow (E) | id$$

Part – B (5 x 8 = 40)

Answer Any FIVE questions

6. Discuss the different phases of a compiler in detail.
7. Illustrate the output of each phase of compilation for the input:

$$position = initial + rate * 60$$

8. Explain common programming errors occur at different levels.
9. Explain the different Error-Recovery strategies in detail.
10. Consider the context-free grammar

$$S \rightarrow S + S | SS | (S) | S * | a$$

and the string $(a+a)*a$

- a) Give the leftmost derivation
 - b) Give the rightmost derivation
 - c) Construct a parse tree for the string
11. Left factor the following grammar
 - a) $S \rightarrow bSSaaS | bSSaSb | bSb | a$
 - b) $S \rightarrow a | ab | abc | abcd | e | f$
 12. Eliminate left recursion for the following grammar

a) $S \rightarrow A, A \rightarrow Ad | Ae | aB | ac, B \rightarrow bBc | f$

b) $A \rightarrow ABd | Aa | a, B \rightarrow Be | b$

XC7853 – Software Testing and Quality Assurance – Assessment 1

Time: 90 Minutes

Max Mark: 50

Answer ALL Questions

Part – A (10 x 2 = 20 Mark)

01. Differentiate software products and other industrial products
02. What is software?
03. Define software quality
04. What is meant by software quality assurance according to IEEE?
05. Distinguish between software errors, software faults and software failures.
06. List the product operations factors.
07. What's is the role of "process" in software quality?
08. Define validation.
09. What is meant by debugging?
10. List down the information's present in a test case

Part – B (3 x 10 = 30 Mark)

11. Explain in detail the causes for software errors.
12. a. Write short note on product revision factors.

Or

- b. List down the product transition factors and explain them in detail.
13. a. Write short note on various TMM levels.

Or

- b. Explain in detail various software testing principles.

DEPARTMENT OF MATHEMATICS, ANNA UNIVERSITY

M.Sc., IT (5-Years Integrated)

VIII SEMESTER

XT7852 - SOFTWARE PROJECT MANAGEMENT

ASSESSMENT - I

Duration : $1\frac{1}{2}$ Hrs

Marks : 50

PART - A

(5 x 2 = 10)

1. What are the five improvements available in water fall model?
2. Draw the block diagram of a predominant cost estimation process.
3. What is the difference between Conventional and modern software development approach?
4. Write the Key Principles of Modern Software Engineering.
5. What is the difference between Implementation and Deployment Artifact set?

PART - B

6. Explain in detail about the Life cycle phases. (12)
 7. a) (i) With neat sketch explain about the Waterfall model. (8)
(ii) Describe Boehm's top 10 list about conventional software management performance. (6)
 - (OR)
 - b) (i) How can you improving the software economics ? Explain in detail. (14)
 8. a) (i) Define check points of the process? Explain in detail? (8)
(ii) Define work flow and explain the different workflow activities of software development process? (6)
 - (OR)
 - b) Explain about the various artifacts in the software process. (14)
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