

MAY 2017

(FOR THE CANDIDATES ADMITTED

(NO. OF PAGES: 3)

DURING THE ACADEMIC YEAR

16 UIT 2A2

2016 ONLY)

N.G.M.COLLEGE (AUTONOMOUS) : POLLACHI

END-OF-SEMESTER EXAMINATIONS : MAY - 2017

B.Sc.- INFORMATION TECHNOLOGY

MAXIMUM MARKS: 75

II SEMESTER

TIME : 3 HOURS

PART – III

MATHEMATICAL FOUNDATIONS FOR COMPUTER SCIENCE

SECTION – A

(10 X 1 = 10 MARKS)

ANSWER THE FOLLOWING QUESTIONS.

1. The rank of matrix $\begin{pmatrix} 1 & 2 & 3 \\ 2 & 3 & 4 \\ 3 & 5 & 7 \end{pmatrix}$ is _____.
a) 0 b) 1 c) 2 d) 3
2. If $A = \{1, 3, 5, 7\}$ and $B = \{2, 4, 5, 7\}$ then $A \cup B =$ _____.
a) $\{1, 3\}$ b) $\{2, 4\}$ c) $\{5, 7\}$ d) $\{1, 2, 3, 4, 5, 7\}$
3. The symbol used for conjunction is _____.
a) $\wedge$ b) $\vee$ c) $\sim$ d) $!$
4. $xRy \wedge xSy =$ _____.
a) $x(R \cup S)y$ b) $x(R \cap S)y$ c) $x(R - S)y$ d) $x(R^c)y$
5. Vertices having same parent are called as _____.
a) Offstrings b) Siblings c) Leaves d) Ancestors
6. Define Column Matrix.
7. What is meant by SET?
8. Define Predicate.
9. Define Universal relation.
10. When is a graph said to be complete?

SECTION –B

(5 X 5 =25 MARKS)

ANSWER EITHER (a) OR (b) IN EACH OF THE FOLLOWING QUESTIONS.

11. a) If $A = \begin{bmatrix} 2 & 5 \\ 1 & 3 \end{bmatrix}$ and $B = \begin{bmatrix} 1 & -1 \\ -3 & 2 \end{bmatrix}$, find AB and BA , Is $AB = BA$?

(or)

(CONTD ...2)

(2)

(16 UIT2A2)

b) Let $A = \begin{pmatrix} 2 & -3 & 1 \\ 4 & 2 & 3 \end{pmatrix}$ and $B = \begin{pmatrix} 3 & -2 & 4 \\ 1 & 3 & -5 \end{pmatrix}$ Show that $(A+B)^t = A^t + B^t$.

12. a) Prove $A \cup (B \cap C) = (A \cup B) \cap (A \cup C)$ by Venn Diagram.

(or)

b) In a class of 25 students, 12 have taken economics, 8 have taken economics but not political science. Find the number of students who have taken economics and political science and those who have taken politics but not economics.

13. a) Write about Tautologies with example.

(or)

b) Establish $\sim (p \wedge q) \leftrightarrow (\sim p \vee \sim q)$ as a tautology.

14. a) Show that the relation $\leq$ (less than or equal to) defined on the set of positive integers, I_+ is a partial order relation.

(or)

b) If A, B, C and D are four sets and f, g and h are three functions (or mappings) defined as:

f: $A \rightarrow B$; g: $B \rightarrow C$ and h: $C \rightarrow A$ then prove that $(h \circ g) \circ f = h \circ (g \circ f)$.

15. a) Write about sub-graph with example.

(or)

b) Write about computer representation of general trees.

SECTION –C

(5 X 8 =40 MARKS)

ANSWER EITHER (a) OR (b) IN EACH OF THE FOLLOWING QUESTIONS.

16. a) Elaborate Types of Matrix.

(or)

b) Compute the inverse of the matrix: $A = \begin{pmatrix} 1 & 0 & -4 \\ -2 & 2 & 5 \\ 3 & -1 & 2 \end{pmatrix}$

17. a) Write about types of sets with examples.

(or)

b) i) If A and B are any two sets, then prove that $A \cup B = A \cap B \leftrightarrow A = B$

ii) Prove that $A - (A - B) = A \cap B$

18. a) With the help of truth tables, prove that

i) $\sim (p \vee q) = \sim (p \wedge \sim q)$

ii) $P \vee \sim q = (p \vee q) \wedge \sim (p \wedge q)$

(or)

(CONTD ...3)

(3)

(16 UIT2A2)

b) i) If p and q are two statements, then show that the statement $(p \uparrow q) \oplus (p \downarrow q)$ is equivalent to $(p \vee q) \wedge (p \downarrow q)$.

ii) If p and q are two statements, then show that $p \oplus q$ is equivalent to $(p \wedge \sim q) \vee (\sim p \wedge q)$.

19. a) i) If R is an equivalence relations in a set A, then prove that R^{-1} is also an equivalence relation.

ii) If R and S are equivalence relations on a set A, prove that $R \cap S$ is an equivalence relations in A.

(or)

b) Discuss various types of Functions.

20. a) Describe Representation of Graphs in Computer Memory.

(or)

b) How to Traverse a Binary Tree? Explain.

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II SEMESTER

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**PART – III
DATA STRUCTURES**

SECTION – A (10 X 1 = 10 MARKS)

ANSWER THE FOLLOWING QUESTIONS.

- 1) Array is a
 - a) Linear Data Structure
 - b) Non-Linear data Structure
 - c) Complex data structure
 - d) none of the above
- 2) Underflow is a condition where you
 - a) Insert a new node when there is no free space for it
 - b) Delete a non-existent node in the list
 - c) Delete a node in empty list
 - d) none of the above
3. In a circular queue the value of r will be ..
 - a) $r=r+1$
 - b) $r=(r+1)\% [QUEUE_SIZE - 1]$
 - c) $r=(r+1)\% QUEUE_SIZE$
 - d) $r=(r-1)\% QUEUE_SIZE$
4. The property of binary tree is
 - a) The first subset is called left subtree
 - b) The second subtree is called right subtree
 - c) The root cannot contain NULL
 - d) The right subtree can be empty
- 5) Collision resolution is called
 - a) Linear probing
 - b) clustering
 - c) quadratic probing
 - d) none of the above
- 6) Define circular linked list.
- 7) What is infix notation?
- 8) What is deque?
- 9) Define Tree.
- 10) Compare quick sort and merge sort on the basis of Average Number of Comparisons.

SECTION –B (5 X 5 =25 MARKS)

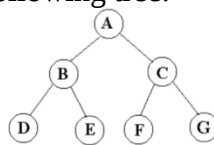
ANSWER EITHER (a) OR (b) IN EACH OF THE FOLLOWING QUESTIONS.

11. a) What is meant by Linear and Non-Linear Data structures?
(OR)
b)) How to perform Dynamic Memory Allocation?

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...2)

12. a) How to consider stack as an Abstract Data type?
(OR)
b) Write an algorithm for evaluation of Prefix Expression.
13. a) State the applications of queues.
(OR)
b) What is meant by Dequeue?
14. a) Explain the Contiguous Array Representation of Binary Tree.
(OR)
b) What is meant by tree traversal? Write a procedure for traversing a binary tree in preorder and execute it on the following tree.



15. a) What is merge sort?
(OR)
b) Classify the Hashing Functions based on the various methods by which the key value is found and state the types of Collision Resolution Techniques and the methods used in each of the type?

SECTION –C

(5 X 8 =40 MARKS)

ANSWER EITHER (a) OR (b) IN EACH OF THE FOLLOWING QUESTIONS.

16. a) Define the term array. How are two-dimensional arrays represented in memory? How is address of an element calculated in a two dimensional array?
(OR)
b) Write a complete program in C to create a single linked list. Write functions to do the following operations (i) Insert a new node at the end (ii) Delete the first node
17. a) How can stacks be used to check whether an expression is correctly parenthesized or not?
(OR)
b) Define a stack. Discuss the operations (i) Push (ii) Pop.
18. a) What are circular queues? Write down the routines for inserting elements from a circular queue implemented using arrays.
(OR)
b) Explain the steps involved in creating priority queues.
19. a) Explain the properties of Binary Trees.
(OR)
b) Construct a Tree for the Inorder sequence D B E A F C and Preorder sequence A B D E C F and write the algorithm for it.
20. a) What is meant by hashing? Explain any five popular hash functions.
(OR)
b) What is quick sort? Sort the following array using quick sort method.

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24 56 47 35 10 90 82 31

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PART – III
OBJECT ORIENTED PROGRAMMING WITH JAVA

SECTION – A (10 X 1 = 10 MARKS)

ANSWER THE FOLLOWING QUESTIONS.

Multiple Choice Questions:

1. In OOP, the properties used to describe an object are known as _____.
a.method b.data c.class d.modifier
2. _____ are skeletons of classes showing what form that class will take when Someone implements it.
a.Instance b.Abstract classes c.Interface d.Abstract methods
3. A _____ is a namespace that organizes a set of related classes and interfaces.
a.package b.thread c.deadlock d.string
4. Which of these methods can be used to output a string in an applet?
a.display() b.print() c.drawString() d.transient()
5. Which of these packages contain all the event handling interfaces?
a.java.lang b.java.awt c.java.awt.event d.java.event

Short Answers:

6. Which feature of OOP is not supported by Java?
7. Define thread.
8. What are the two ways to create a string in Java?
9. What is a Java AWT?
10. What is Double Buffering?

SECTION – B (5 X 5 = 25 MARKS)

ANSWER EITHER (a) OR (b) IN EACH OF THE FOLLOWING QUESTIONS

11. a) Write a note on constructors.
(OR)
b) What is the method overloading?
12. a) What is an Exception? List the types of Exceptions.
(OR)
b) What is a thread? List its uses.

(CONTD....2)

13. a) Write short notes on Java packages.
(OR)
b) Explain Java output streams.
14. a) What is meant by a Java Applet? Explain its life cycle.
(OR)
b) Explain Java AWT hierarchy of classes.
15. a) What is a Layout Manager? List few classes that represent it.
(OR)
b) What is Double Buffering?

SECTION - C**(5 X 8 = 40 MARKS)****ANSWER EITHER (a) OR (b) IN EACH OF THE FOLLOWING QUESTIONS**

16. a) Write a brief note on object oriented programming concept.
(OR)
b) Write a program to find out the factorials of numbers from 1 to 10 using recursion.
17. a) What is an interface? Write a detailed note on it.
(OR)
b) Explain Exception handling in detail.
18. a) Write a program to implement all string operations.
(OR)
b) Write in detail about Java Reader and Writer Classes.
19. a) Write a program to create a basic Applet by extending Applet Class.
(OR)
b) With an example show how to create a child frame window in an Applet.
20. a) Explain event handling in detail.
(OR)
b) Write a note on Images.

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2013 – BATCH

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2015 – BATCH

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**PART –III
COMPUTER NETWORKS**

SECTION – A (10 X 1 =10 MARKS)

ANSWER THE FOLLOWING QUESTIONS:

MULTIPLE CHOICE QUESTIONS

1. Expand ASCII Code _____.
 - a) American Standard Code for Information Interchange
 - b) African Standard Code for Information Interchange
 - c) American Standard Code for Intellectual Interchange
 - d) American Superior Code for Information Interchange
2. Which is carrying the information in the form of light?
 - a) Coaxial Cable b) RF signals c) Ultrasonic waves d) Optical Fiber Cables
3. Expand ISDN.
 - a) Integrated Services Digital Network
 - b) Internal Services Digital Network
 - c) Internal Secure Digital Network
 - d) Integrated Secure Digital Network
4. In the context of data transmission, ATM is the acronym for _____.
 - a) Automatic Transmission Mechanism
 - b) Automatic Teller Machine
 - c) Asynchronous Transfer Mode
 - d) Asynchronous Telecommunication Mode
5. The expansion of ISP is _____.
 - a) Internet Standard Provider
 - b) Intranet Standard Provider
 - c) Internet Service Provider
 - d) None of the above

Short Answers

6. What is meant by Multiplexing?
7. List down any four networking topologies.
8. Give the expansion for MAN.
9. What are the two types of services provided by X.25 protocol?
10. What is meant by Leased Line?.

(CONTD...2)

SECTION – B**(5 X 5 =25 MARKS)****ANSWER EITHER (a) OR (b) IN EACH OF THE FOLLOWING QUESTIONS:**

11. a) What is meant by information encoding? Explain in brief.

(OR)

- b) Distinguish Parallel and Serial Communication in detail.

12. a) What are the different types of Transmission errors?

(OR)

- b) Mention the factors affecting the routing algorithms.

13. a) Write the functions of Data Link Layer in OSI Model.

(OR)

- b) How are Token Rings useful in communications? Explain.

14. a) Sketch the Frame Relay Frame Format.

(OR)

- b) Compare X.25 versus Frame Relay.

15. a) Describe World Wide Web.

(OR)

- b) Give the usage of Internet .

SECTION – C**(5 X 8 = 40 MARKS)****ANSWER EITHER (a) OR (b) IN EACH OF THE FOLLOWING QUESTIONS.**

16. a) List down the Standards Organizations and explain in detail.

(OR)

- b) What are the types of Multiplexing? Explain with diagrams.

17. a) Describe the types of Switching with suitable diagrams.

(OR)

- b) Explain the major categories of routing algorithms in detail.

18. a) Elaborate FDDI in detail.

(OR)

- b) Discuss the architecture and interfaces of ISDN.

19. a) Discuss the following on X.25.

- i) Working principle
- ii) Characteristics
- iii) Operations

(OR)

- b) Discuss Asynchronous Transfer Mode in detail.

20. a) Discuss Bridges and Routers in detail.

(OR)

- b) What are the ways of accessing Internet? Explain.

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B.Sc.- INFORMATION TECHNOLOGY MAXIMUM MARKS: 75

IV SEMESTER

TIME : 3 HOURS

PART – III

JAVA PROGRAMMING

SECTION – A 10 X 1 = 10 MARKS)

ANSWER THE FOLLOWING QUESTIONS.

MULTIPLE CHOICE QUESTIONS.

1. _____ is also known as “information hiding”.
a) Polymorphism b) Abstraction c) Encapsulation d) Inheritance
2. Implementing more than one interface is an example of _____ inheritance.
a) Multiple b) Multilevel c) Hierarchical d) Hybrid
3. Which of the following access modifier is accessible only to the defined class?
a) Private b) Public c) Protected d) Package
4. In which class, the method set Visible() first defined?

- a) Frame b) Window c) Component d) Container

5. _____ method belongs to Image Observer interface.

- a) image Observe() b) image Update()
c) image Status() d) status ID()

SHORT ANSWERS

6. Define Constructor.
7. What is a thread ?
8. What is the output of: **String s = "Number" + (5+5);**
9. Mention the package that includes font class.
10. What is meant by an Event Listener?

SECTION – B (5 X 5 =25 MARKS)

ANSWER EITHER (a) OR (b) IN EACH OF THE FOLLOWING QUESTIONS:

11. a) What is a Class? Explain class definition with example.

[OR]

- b) Write a short note on Constructor overloading. (CONTD...2)

(2)

(14 UIT 15 / 15 UIT 412)

12. a) Discuss abstract methods.

[OR]

- b) Write about throw clause with example.

13. a) Write a note on the creation of strings using different constructors.

[OR]

- b) Write a Java program to copy the contents of an existing file into another file using FileInputStream and FileOutputStream.

14. a) Write a note on any four Graphics methods used to draw various shapes.

[OR]

- b) Write a brief note on Component Class and its methods.

15. a) Explain Mouse Listener with an example.

[OR]

- b) Write about Image class and its methods with example.

SECTION – C (5 X 8 =40 MARKS)

ANSWER EITHER (a) OR (b) IN EACH OF THE FOLLOWING QUESTIONS:

16. a) Explain in detail the OOPS concepts.

[OR]

- b) Discuss call-by-value and call-by-reference with suitable example.

17. a) Briefly explain Exception handling.

[OR]

- b) Elaborate Thread life cycle.

18. a) Describe the creation and implementation of Packages in java.

[OR]

- b) Write about all string comparison methods with examples.

19. a) Elucidate the life cycle of Applets.

[OR]

- b) Describe in detail Container class with one example.

20. a) Explain any four Layout managers in java.

[OR]

- b) Write in detail about the Double buffering.

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DURING THE ACADEMIC YEARS 2013, 2015 – BATCH 15 UIT413

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2014 – BATCH 14 UIT 16

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PART -III

SOFTWARE ENGINEERING

SECTION – A (10 X 1 =10 MARKS)

ANSWER THE FOLLOWING QUESTIONS:

MULTIPLE CHOICE QUESTIONS.

- Which of the following process model is called as “Classic life cycle”?
a) Incremental b) Prototype c) Waterfall d) Spiral
- _____ requirement model depicts the information domain of a problem.
a) Scenario based b) Class oriented c) Flow oriented d) Data
- Relative functional strength of a module is known as _____.
a) Cohesion b) Coupling c) Abstraction d) Refinement

4. The cost of testing and debugging refers to _____.
a) Prevention b) External Failure c) Internal Failure d) Appraisal
5. Which of the following test is known as “Glass box Testing”?
a) Blackbox b) Whitebox c) Greybox d) Basispath

SHORT ANSWERS.

6. What is a Software Process?
7. What is the use of ER diagram?
8. Define Fitt’s Law.
9. Define the term Quality of Design.
10. Write the Cyclomatic complexity for a flow graph V(G).

(CONTD...2)

(2) (15 UIT 413 / 14 UIT 16 / 13 UIT 16)

SECTION – B (5 X 5 =25 MARKS)

ANSWER EITHER (a) OR (b) IN EACH OF THE FOLLOWING QUESTIONS:

11. a) How do software characteristics differ from hardware? Explain.

[OR]

- b) What are the types of Process flow? Explain.

12. a) Give a note on software Domain Analysis.

[OR]

- b) How to create a State diagram and Sequence diagram?

13. a) Write a note on the software Quality Attributes.

[OR]

- b) Explain models for User Interface Analysis.

14. a) Explain the impact of Management Actions on Product Quality.

[OR]

- b) Write about Software Quality Goals, Attributes and Metrics.

15. a) Write short notes on Software Testing Strategies.

[OR]

- b) Write about Equivalence Partitioning testing method.

SECTION – C (5 X 8 =40 MARKS)

ANSWER EITHER (a) OR (b) IN EACH OF THE FOLLOWING QUESTIONS:

16. a) Elaborate the principles of Software Engineering practice.

[OR]

- b) Illustrate the Spiral software process model.

17. a) Briefly explain CRC modeling.

[OR]

- b) Elaborate Flow Oriented modeling.

18. a) Describe the types and characteristics of Design Classes.

[OR]

- b) Write about the elements of Interface Analysis for design tasks.

19. a) Elucidate the activities for achieving Software Quality.

[OR]

b) Explain in detail Statistical Software Quality Assurance.

20. a) Give a detailed note on Integration Testing approaches.

[OR]

b) Write about Basis Path Testing in detail.

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PART – III

GRID AND CLOUD COMPUTING

SECTION – A

(10 X 1 = 10 MARKS)

ANSWER THE FOLLOWING QUESTIONS.

1. The resource provide _____ services between the service requester and the service provider.
a) Parsing b) schedulers c) Design d) None
2. The NFC project defines a _____ organization devoted to fusion research.
a) Functional b) Virtual c) Computational d) None
3. Any web based application or service offered via _____ is called.
a) Cloud service b) Cloud massive c) Cloud server d) None
4. A better solution is to use a web based calendar such as _____.
a) Google b) Yahoo c) Google (or) Yahoo d) Both
a&b
5. Google groups together related email messages in what Google calls _____.
a) Composement b) control analog c) Conversations d) All of the above
6. What is meant by Grid Computing?
7. Define Grid Services.
8. What is Cloud Computing.
9. Give the expansion for CRM.
10. Define Google Talk.

SECTION –B

(5 X 5 =25 MARKS)

ANSWER EITHER (a) OR (b) IN EACH OF THE FOLLOWING QUESTIONS.

11. a) Write short notes on an over view of Grid Business.

(Or)

- b) Explain about Autonomic Computing.

(CONTD ...2)

12. a) Discuss Commercial Data Center.
(Or)
b) Explain Technical details of OSGI Specification .
13. a) Give the history of cloud Computing .
(Or)
b) Mention The Pros and Cons of Cloud service Development.
14. a) How to manage the contact lists?
(Or)
b) Explain Exploring online scheduling Applications.
15. a) Give the necessity of Cloud Storage.
(Or)
b) How to evaluate the web Conferencing Tools?

SECTION –C (5 X 8 =40 MARKS)

ANSWER EITHER (a) OR (b) IN EACH OF THE FOLLOWING QUESTIONS.

16. a) Discuss on Current Grid Activities with neat diagram.
(Or)
b) Illustrate the the Global XML Architecture Vision with diagram.
17. a) Explain Online Media and Entertainment with examples.
(Or)
b) Illustrate the Grid Services, Client and Service Programming Model.
18. a) How does Cloud Computing Work? Give a brief explanation on it.
(Or)
b) Demonstrate on the Discovering Cloud Services Development Services and Tools.
19. a) Illustrate the Collaborating on Group Projects .
(Or)
b) Explain Exploring Online Calendar Applications.
20. a) Explain in detail Understanding Event Management Applications.
(Or)
b) Illustrate the Web mail Services with examples.

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VI-SEMESTER

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PART – III
COMPUTER GRAPHICS

SECTION – A (10 X 1 = 10 MARKS)

ANSWER THE FOLLOWING QUESTIONS.

1. ____ consists of a small, vertical lever mounted on a base that used to steer the screen cursor
a) Mouse b) Joystick c) Keyboard d) Touchpad
2. _____ is a single character that can be displayed in different colors and in different sizes.
a) Text attributes b) Marker attributes c) character attributes d) All of the above
3. _____ transformation alters the size of an object
a) scaling b) rotation c) translation d) All of these
4. A three dimensional reflection can be performed relative to a selected ____ axis.
a) reflection b) dimension c) sheers d) scaling
5. _____ method used for solving the hidden surface problem.
a) Painter Algorithm b) overlapping algorithm c) A- buffer method d) none of these

Short Answers

6. Give the purpose of video o controller.
7. List any two techniquesw for Line drawing.
8. What is meant by clipping?
9. Define projection.
10. Give the expansion for RGB.

SECTION –B

(5 X 5 =25 MARKS)

ANSWER EITHER (a) OR (b) IN EACH OF THE FOLLOWING QUESTIONS.

11. a) How does Random Scan systems work?
(OR)
b) What is meant by virtual reality?

12. a) Discuss Line attributes.

(OR)

b) Give the importance of character attributes.
...2)

(CONTD

(2)

(13 UIT 25 / 14 UIT 25)

13. a) How a view port is defined?

(OR)

b) How is text clipping done?

14. a) What are the transformations used in Three dimensional graphics applications?

(OR)

b) When are the objects said to be Blobby?

15. a) Discuss wireframe methods

(OR)

b) Compare HLS Color model with CMY color model.

SECTION –C

(5 X 8 =40 MARKS)

ANSWER EITHER (a) OR (b) IN EACH OF THE FOLLOWING QUESTIONS.

16. a) What are the components of cathode Ray Tube? How does it work?

(OR)

b) How does mouse act as a good input device for graphics?

17. a) Discuss (i) simple DDA (ii) Symmetric DDA.

(OR)

b) Write an algorithm for circle generation.

18. a) How to represent the two dimensional transformations in the matrix form.

(OR)

b) How can screen edges be used for line clipping?

19. a) How can a three dimensional object be rotated?

(OR)

b) How is a Three dimensional object to be represented?

20. a) Describe the Depth Buffer Method.

(OR)

b) Discuss the following color models (i) RGB (ii) YIQ.

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VI SEMESTER

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PART – III

MOBILE COMPUTING (ELECTIVE – II)

SECTION – A

(10 X 1 = 10 MARKS)

ANSWER THE FOLLOWING QUESTIONS.

1. Most of the laptop computers defined as a _____ environment.
a) Computing b) wireless c) Evaluation d) None
2. _____ is a multiplexing technique where multiple channels are multiplexed over time.
a) FDMA b) TDMA c) TACS d) AMPS
3. The administrative region is commonly known as _____.
a) BSC b) MSC c) PLMN d) All of the these
4. A gateway _____ support node acts as an interface.
a) SGSN b) GGSN c) both a&b d) None
5. The last spreading method is called _____.
a) Chrip b) Frequency Hopping c) Time Hopping d) Hybrid System
6. What is meant by mobile computing?
7. Give the expansion for PRMA.
8. Define Channel coding.
9. Define WSP.
10. What is a BIT?

SECTION –B

(5 X 5 =25 MARKS)

ANSWER EITHER (a) OR (b) IN EACH OF THE FOLLOWING QUESTIONS.

11. a) Give the importance of wireless Computes.
(OR)
b) How can mobile computing be achieved through Internet?

(CONTD ...2)

12. a) How does voice XML fit into web environment?.

(OR)

- b) Give the importance of Bluetooth.

13. a) Discuss GSM Architecture .

(OR)

- b) Mention the strength of SMS.

14. a) Discuss Data services in GPRS.

(OR)

- b) Discuss the role of user agent in WAT.

15. a) Describe the architecture of IS – 95.

(OR)

- b) How to provide security in wireless LAN?

SECTION –C

(5 X 8 =40 MARKS)

ANSWER EITHER (a) OR (b) IN EACH OF THE FOLLOWING QUESTIONS.

16. (a) Describe the three – tier architecture in mobile computing.

(OR)

- b) Give the importance of middleware and gateways.

17. a) Explain Multiple Access Procedures.

(OR)

- b) How is mobile computing done through telephone?

18. a) Discuss the network aspects in GSM.

(OR)

- b) How to achieves VAS through SMS .

19. a) Discuss the network operations in GPRS.

(OR)

- b) Describe the architecture of MMS.

20. a) Explain in detail Spread spectrum Technology .

(OR)

- b) Discuss the following (i) Mobile Ad – Hoc Networks (ii) Sensor Networks

2014 ONLY)

N.G.M.COLLEGE (AUTONOMOUS) : POLLACHI

END-OF-SEMESTER EXAMINATIONS : MAY - 2017

B.Sc.- INFORMATION TECHNOLOGY

MAXIMUM MARKS: 75

VI SEMESTER

TIME : 3 HOURS

PART – III
MULTIMEDIA (ELECTIVE – III)

SECTION – A (10 X 1 = 10 MARKS)

ANSWER THE FOLLOWING QUESTIONS.

MULTIPLE CHOICE QUESTIONS.

17. ____ memory is non volatile
b) RAM b) ROM c) EPROM d) All of these
18. _____ is usually the first software tool computer users learn
b) Photoshop b) QuickTime c) word processor d) CAD
19. _____ is a family of graphic characters that usually includes many type sizes and styles
b) typeface b) color c) text d) none of these
20. _____ is an object actually moving across or into or out of the screen
b) cookie b) animation c) sound d) font
21. _____ is content that uses a combination of different content forms such as text, audio, images, animations, video and interactive content.
b) testing b) cryptography c) image processing d) multimedia

Short Answers

22. Why is DVD a recommend for multimedia applications?
23. Name any two icon based authoring tools.
24. List out any two image file extension.
25. What is Storyboard?
26. List out any two multimedia software.

SECTION –B (5 X 5 =25 MARKS)

ANSWER EITHER (a) OR (b) IN EACH OF THE FOLLOWING QUESTIONS.

27. a) Discuss the stages in developing a multimedia project.
(or)
b) Write the features of Communication devices.

(CONTD ...2)

(2)

(14 UIT 27)

28. a) Explain the salient features of painting and drawing tools.

(or)

b) What are the advantages of Time based authoring tools?

29. a) How to use fonts in multimedia?

(or)

b) Give a short note on Vector drawing objects.

30. a) Define Animation. What is meant by morphing.

(or)

b) What are the primary things in designing structure of multimedia?

31. a) Write about the kiosks.

(or)

b) How can multimedia be used for home appliances?

SECTION –C

(5 X 8 =40 MARKS)

ANSWER EITHER (a) OR (b) IN EACH OF THE FOLLOWING QUESTIONS.

32. a) Discuss the role of audio specialist and video specialist in the development of multimedia. (or)

b) How is scanner used?

33. a) Discuss 3D modeling tools.

(or)

b) Give the importance of card and page based authoring tools.

34. a) How to use text in multimedia ?

(or)

b) Explain the technique of adding sound in multimedia projects.

35. a) Mention the principles of animation.

(or)

b) How does Video Work?

20. a) Give the importance of training and education in multimedia?.

(or)

b) How is image processing done?

M8/-

(FOR THE CANDIDATES ADMITTED

DURING THE ACADEMIC YEARS 2014 &

2015 – Batch

(NO.OF PAGES:1)

15 UIT 4N2

2015 ONLY)

2014 – Batch

14 UIT NA2

NGM COLLEGE (AUTONOMOUS) : POLLACHI
END – OF – SEMESTER EXAMINATIONS : MAY- 2017

UG DEGREE COURSES (SF)

MAXIMUM MARKS: 50

IV SEMESTER

TIME: 2 HOURS

PART – IV : NON - MAJOR ELECTIVE PAPER – II
INFORMATION SECURITY

SECTION – A

(10 X 1 = 10 MARKS)

ANSWER THE FOLLOWING QUESTIONS.

1. An intruder can capture the credit card details as they travel from the client to the ----
a) Server b) Another client c) Printer d) Monitor.
2. ----- Aspect invokes cost and effort in security implementation.
a) Affordability b) functionality c) cultural issues d) legality
3. ----- is the art and science of achieving security by encoding messages to make them non-readable.
a) cryptology b) cryptography c) Encryption d) decryption
4. Verman cipher is also called as -----
a) three – time pad b) two time pad c) one – time pad d) zero – time pad
5. The reverse process of Encryption is called -----
a) plain text b) cipher text c) Decryption d) key
6. Mention two examples of security mechanism.
7. Define Trusted System.
8. What is cryptology?
9. Mention any one substitution technique.
10. Define Encryption.

SECTION – B

(5 X 8 = 40 MARKS)

ANSWER ANY FIVE OF THE FOLLOWING QUESTIONS.

11. Explain in detail the security models.
12. Discuss the principles of security.
13. Write a note on plain text and cipher text.
14. Explain in detail Caesar cipher technique.
15. Describe Rail fence transposition technique.
16. Explain Encryption & Decryption.
17. Write a note on keys used in cryptography.
18. Discuss the need for security.

