SECTION - A (5X15=75M)

ANSWER ANY FIVE QUESTIONS.

1. Explain about the OSI security architecture?
2. Explain the RSA algorithm with an example?
3. Explain about the Hash functions?
4. Write about Kerberos authentication service?
5. Explain about system level security?
6. Explain about classical Encryption Techniques?
7. Explain about Diffie Hellman Key Exchange?
8. Write about electronic mail security?
ACHARYA NAGARJUNA UNIVERSITY

B.C.A DEGREE EXAMINATIONS, 2017

3rd Year – 5th Semester

Software Engineering

Time: Three hours
Maximum Marks: 75 marks

SECTION - A (5X15=75M)

ANSWER ANY FIVE QUESTIONS.

1. Explain about Process and Project metrics?
2. Explain the Feasibility study?
3. Explain about the cohesion and coupling?
4. Write about the data flow oriented design?
5. Explain about Analysis Process and model?
6. Explain about Interface design?
7. Explain about the black box testing?
8. Write about the Reverse engineering?
ACHARYA NAGARJUNA UNIVERSITY
B.C.A DEGREE EXAMINATIONS, 2017
3rd Year – 5th Semester

OOAD

Time: Three hours
Maximum Marks: 75 marks

SECTION - A (5X15=75M)

ANSWER ANY FIVE QUESTIONS.

1. Explain about the Use case modeling?
2. Explain the UML Activity diagrams and modeling?
3. Explain about the Domain model refinement?
4. Write about the Use case logical architecture?
5. Explain about designing for visibility?
6. Explain about singleton and observer patterns?
7. Explain about the operation contracts?
8. Write about the UML deployment?
Answer any FIVE from the following. Each question carries 15 Marks.

1. a) What is the purpose of Data Cleaning in the Data Analysis?
   b) Discuss about the functions of Data Mining.

2. a) What is OLAP? Explain about the operations of OLAP.
   b) What are the differences between Data Warehouse and Data Mart?

3. a) Discuss about the generation of frequent sets without generating the candidate set.
   b) Derive the associations for the following dataset with 50% confidence and 20% support.

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4. a) Discuss about the steps involved in construction of Decision Tree and its limitations.
   b) Explain about the methods to evaluate the accuracy of the classification models.

5. a) Explain how the clustering is different from classification.
   b) Discuss about K-Mean Clustering with the help of an example.

6. a) Discuss about the issues of Data Mining.
   b) Explain about Star Schema.

7. a) Discuss about limitation of Apriori Algorithm.
   b) Explain the Bayes Classification with an example.

8. a) Discuss about KDD Process.
   b) Explain about the precautions need to take while making Data Integration Process.
Answer any FIVE from the following. Each question carries 15 Marks.

1. a) Explain about Error detection and correction.
   b) Briefly explain about LRC.

2. a) Explain the functionality of wireless LAN in detail.
   b) Discuss about different random access techniques.

3. Explain about
   a) Internet Protocol.
   b) Routers.

4. a) Explain about the role of DNS in Computer Network
   b) Discuss about the functions of Transport Layer.

5. a) Explain about the differences between HTTP and FTP
   b) Explain about the architecture and services provided by the e-mail.

6. Discuss in detail about the layers of OSI Model.

7. a) Explain about Multi-Casting with an example.
   b) Explain in detail about WWW.

8. a) List out the different kinds of risks faced by the messages that are transmitted over the internet.
   b) Explain the importance of Sequence Control.
V Semester B.C.A. Model Paper  
Elective I: Computer Forensics  

Time: 3 Hrs  
Max. Marks: 75

Answer any FIVE from the following. Each question carries 15 Marks.

1. a) Define Computer Forensics and its objectives.  
   b) Discuss about the problems with Computer Forensics Evidence.

2. a) Distinguish the differences between Computer Crime and Digital Crime.  
   b) Discuss about different factors motivates for computer intrusion or theft of information in Contemporary society.

3. a) Discuss about the different categories of Computer Criminals.  
   b) Briefly explain about Cyber Investigation Procedures.

4. Discuss about different cyber laws can be assist in Cyber Forensics.

5. a) Define Message Digest and list out rules for forensic hash.  
   b) Explain about different data coping methods used in software acquisitions.

6. a) Explain about Modified Access create dates associated with Files.  
   b) Discuss about the functions of evidence custody form.

7. a) What id Data Hiding? List out the challenges involved in Data Hiding.  
   b) Discuss about Steganography.

8. a) Explain about different ways to protect and recover the passwords from digital attacks.  
   b) List out the examples for Computer Crimes.
V Semester B.C.A. Model Paper
Elective II: Android Basics

Time : 3 Hrs

Max. Marks: 75

Answer any FIVE from the following. Each question carries 15 Marks.

1. Discuss about different components of Android Application Architecture.

2. a) Explain the Procedure to create an Android Application.
   b) Discuss about the methods to transfer the files into and out of the Emulator.


4. a) Briefly about Listening to user interaction with an example.
   b) How we can link the different components in Android Application.

5. Discuss about
   a) Picker Views
   b) ImageView
   c) WebView

6. a) Discuss about steps involved in installing the Eclipse IDE
   b) Explain about Android Virtual Device.

7. Generate an Android application to read and display the student information.

8. Explain about different methods used in Android Fragments.
Answer any FIVE from the following. Each question carries 15 Marks.

1. a) Define animation and explain about Disney's Cell Animation Process.
       b) What is Stop Motion Photo Animation?

2. Briefly explain about types of Animation.

3. a) Explain about Principles of Animation.
       b) Explain about Drama and Psychological Effect.

4. a) Explain about clean ups, color reference drawing and Rough drawing in Animation.
       b) What are precautions need to take while generating Animations.

5. Explain how facial expressions can be incorporate in 2D and 3D Animations.

       b) Briefly explain about the working of ARCs in Animations.

7. Discuss about
   i. Master Back Ground
   ii. Story Board.

8. a) Explain about Character drawing.
       b) Briefly discuss about follow through and overlapping action.
V Semester B.C.A. Model Paper
Elective II: Software Testing Methodologies

Time : 3 Hrs
Max. Marks: 75

Answer any FIVE from the following. Each question carries 15 Marks.

   b) Define Structural Bug. Explain about different categories of structural Bugs.

2. a) Discuss about the similarities and differences between Control Flow Graph and Flow Chart
   b) Construct a control flow graph for Binary Search Application.

3. a) Explain about role of Inspection and Reviews in Software Testing Process
   b) Define Testability. List out the different tips for Testability.

4. a) Discuss about different anomalies may encounter, while defining the Data Flowcharts.
   b) Why is it impossible for a tester to find all the bugs in a system? Why might it not be necessary for a program to be completely free of defects before it is delivered to its customers?

5. a) Explain about Domain Clouse and Domain Dimensionality.
   b) Briefly explain about different domain errors.

6. a) How can we form specifications into sentences? Write down different phrases that can be used for words?
   b) Explain about the procedure to determine paths in domain in Logic based Testing.

7. An Application calculates the gross salary of an employee with references to the total number of working hours. If the total working hours per week are less than or equal to 45, then employee receives normal basic salary and benefits. The hours over 45 on normal working days are calculated at the rate of 1.25 times of the salary and benefits. However, on Sundays or holidays, the hours are calculated at the rate of 2.15 times of the salary and benefits. Construct the Decision Table for the above Specification.

8. a) Explain about different issues that can be encounter, while doing State Based Testing.
   b) Discuss about partition algorithm for Graph Matrix.