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S.V.K.P. & Dr. K.S. RAJU ARTS & SCIENCE COLLEGE
(Autonomous)
Recognized by UGC as "College with Potential for Excellence"
Accredited by NAAC with "A" Grade
(Affiliated to ADIKAVI NANNAYA UNIVERSITY - Recognised by Govt. of Andhra Pradesh)
PENUGONDA-534 320, West Godavari District., (A.P.)

I B.Sc. COMPUTER SCIENCE

I Semester (w.e.f. 2020-21 Admitted Batch)
PAPER – I: Problem Solving in C
MODEL PAPER

Time: 3 Hours **Max. Marks: 75 Marks**

PART-I

Note: 1. Answer Any **FIVE** Questions by choosing at least two from **Section-A** and **Section-B**.
2. Each one carries 10 marks. 5 x 10 =50 Marks

SECTION-A

1. Draw the block diagram of a computer and explain its parts?
2. Define flow chart? What are the symbols used in flow chart with an example?
3. Explain about different types of operators in C?
4. What are the loop control statements in C? Explain in detail?
5. Explain two dimensional arrays with syntax and example?

SECTION-B

6. Write a C program to find the Multiplication of two matrices?
7. Explain about the storage classes in C?
8. Define structure? Explain with syntax and an example program?
9. Explain dynamic memory allocation functions in C?
10. Explain basic file operations in C?

PART-II
SECTION-C

Note: 1. Answer any **FIVE** questions from the following.
2. Each one carries 5 marks **5 x 5= 25Marks**

11. Define Algorithm? Write about the key features of algorithm?
12. Explain the structure of C program?
13. Define array? How to declare and initialize one dimensional array?
14. Write a C program to find the factorial of given number using recursion?
15. Define pointer? How to declare and initialize pointer?
16. Write about the applications of Computers?
17. Explain about break and continue statements?
18. Write about string handling functions in C?

B.Com (Computer Applications)
Paper-1: Information Technology
I Semester (w.e.f. 2020-21 Admitted Batch)

MODEL PAPER

Time: 3 Hours **Max.Marks: 75 Marks**

PART-I

Note: 1. Answer Any **FIVE** Questions by choosing at least two from **Section-A** and **Section-B**.

2. Each one carries 10 marks. 5 x 10 =50 Marks

SECTION-A

1. Define Computer? Write the characteristics and limitations of computers?
2. Explain about the generations of computers?
3. Explain different parts of MS-word window with neat diagram?
4. What is mail merge? Explain the procedure to create mail merge in MS-word?
5. What is electronic spreadsheet and explain its features?

SECTION-B

6. Define function? Explain different types of functions in MS-Excel?
7. What is Power Point? Explain the features of Power Point?
8. How to create a power point presentation? Explain the slide effects and slide transition?
9. Explain how to create a new database in MS-Access?
10. Explain the procedure to create a report in MS-Access?

PART-II

SECTION-C

Note: 1. Answer any **FIVE** questions from the following.

2. Each one carries 5 marks **5 x 5= 25Marks**

11. Explain about the primary storage devices in computer?
12. Explain how to create and save a document in MS-word?
13. Write about the workbook in MS-excel?
14. Explain the auto content wizard in MS-power point?
15. What is database in MS-access?
16. Define Operating system and its functions?
17. Explain about find and replace in MS-word?
18. Write about the sorting in MS-excel?

I B.Sc. COMPUTER SCIENCE

II Semester (w.e.f. 2020-21 Admitted Batch)
PAPER – II: Data Structure Using C

MODEL PAPER

Time: 3 Hours **Max. Marks: 75**

PART-I

Note: 1. Answer Any Five Questions by choosing at least two from Section-A and Section-B.
2. Each one carries 10 marks. **5 x 10 =50M**

SECTION-A

1. What are primitive and non-primitive data structures with an example?
2. Explain different approaches to designing an algorithm?
3. Explain different types of arrays?
4. What is linked list? Explain different types of linked lists in data structures?
5. What is stack? Write ADT. Explain various operations of stack?

SECTION-B

6. What is a Deque? What are the different techniques used to represent Deque? Explain.
7. Write about different tree traveling techniques and write an algorithm for traveling techniques?
8. Explain different applications and properties of binary tree?
9. Write about various Graph Travelling techniques?
10. What is searching? Explain Linear Search Algorithm with example?

PART-II

SECTION-C

Note: 1. Answer any five questions from the following.
2. Each one carries 5 marks **5 x 5= 25M**

11. Explain about Abstract Data Types?
12. What is Recursion?
13. Define linear and non-linear data structures?
14. Write about Linked list in Arrays?
15. What are the applications of stacks?
16. What is priority queue?
17. Explain about Binary Search Tree?
18. Briefly explain various representations of Graphics?

B.Com (Computer Applications)
Paper-II: E-COMMERCE AND WEB DESIGNING
II Semester (w.e.f. 2020-21 Admitted Batch)

MODEL PAPER

Time: 3 Hours **Max. Marks: 75 Marks**

PART-I

Note: 1. Answer Any **FIVE** Questions by choosing at least two from **Section-A** and **Section-B**.

2. Each one carries 10 marks. 5 x 10 =50 Marks

SECTION-A

1. List and explain various advantages and disadvantages of e-Commerce.
2. What are various e-Commerce Business Models? Explain
3. What is a Generic e-Payment System? Explain in detail
4. What are the different types of e-Payment? Explain its advantages and Disadvantages of each.
5. List and explain the advantages and disadvantages of Transacting Online?

SECTION-B

6. What are various e-Commerce applications? Explain
7. What is the structure of HTML document? Explain any 5 tags in HTML.
8. What is a Style Sheet? What is its purpose? Explain different types of Style Sheets.
9. Write and explain the various security threats in the e-Commerce environment.
10. What is an Encryption? Explain the role of Encryption in protecting the communication in e-Commerce.

PART-II

SECTION-C

Note: 1. Answer any **FIVE** questions from the following.

2. Each one carries 5 marks **5 x 5= 25Marks**

11. Role of website in e-Commerce
12. B2C
13. Characteristics of e-Payment systems
14. Digital Signature
15. Online Shopping
16. Anchor tag in HTML
17. Intrusion
18. Sniffing

II B.Sc. Computer Science (20CS3)

THIRD SEMESTER

Database Management System
(w.e.f. 2020-21 Admitted Batch)

Time: 3 Hours **MODEL QUESTION PAPER** **Max. Marks: 75**

PART – 1

Answer any **FIVE** questions choosing at least two from each section.
Each question carries 10 marks. **5x10=50 Marks**

SECTION-A

1. What is File based Systems? What are the Drawbacks of File based system?
2. Define DBMS. What are the advantages of DBMS?
3. Explain basic building blocks of an Entity Relationship Diagram with example?
4. Explain Attribute classification?
5. Explain about the CODD rules?

SECTION-B

6. Explain the concept of Normalization.
7. Explain about DDL Commands?
8. Explain about set operations in SQL?
9. Explain about PL/SQL Language Elements?
10. Write the steps to create Cursors with example?

PART – 2

Answer any **FIVE** questions.
Each question carries 5 marks. 5x5=25 marks

11. Explain two-tier architecture?
12. What is generalization and specialization?
13. Explain different types of keys?
14. What are the data types in SQL?
15. Explain the structure of PL/SQL?
16. What are the objectives of Database management systems?
17. Explain classification of Entity Sets?
18. Describe the transaction properties?

II B.Com (Computer Applications) (20PC3)

THIRD SEMESTER

Programming With C & C++

(W.e.f. 2020-21 Admitted Batch)

Time: 3 Hours **MODEL QUESTION PAPER** **Max. Marks: 75**

PART – 1

Answer any **FIVE** questions choosing at least two from each section.
Each question carries 10 marks. **5x10=50 Marks**

SECTION-A

1. Write about Data Types and Operators in C Language.
2. Write about If and Switch Statement with examples.
3. Write about types of Loops in C Language with Flow Charts and example syntax.
4. Write about Array Declaration and Initialization and write a C program for Addition oftwo arrays.
5. Write about different types of String handling functions

SECTION-B

6. Explain Call by Value and Call by Reference with examples.
7. Explain about basic concepts of OOP.
8. Write about Creating source file, Compiling and Linking.
9. Explain about types of Constructors.
10. Explain about different types of Inheritances.

PART – 2

Answer any **FIVE** questions. Each question carries 5 marks. **5x5=25 marks**

11. Write the Structure of C program
12. Write about Break and Continue Statement.
13. What is recursion? Write an example program for recursion.
14. Write the Structure of C++ Program.
15. What is Inheritance? What are the types of Inheritance?
16. Write the Tokens and Constants in C Language.
17. Write Declaration and Initialization of String.
18. Write about operator overloading.

II B.Sc. Computer Science (20CS4)

FOURTH SEMESTER

OBJECT ORIENTED PROGRAMMING USING JAVA

(W.e.f. 2020-21 Admitted Batch)

Time: 3 Hours **MODEL QUESTION PAPER** **Max. Marks: 75**

PART – 1

Answer any **FIVE** questions choosing at least two from each section.
Each question carries 10 marks. **5x10=50 Marks**

SECTION-A

1. Explain different types of Operators in Java?
2. Explain Java features?
3. Define Constructor. Explain types of Constructors with example programs?
4. Explain different Types of Inheritance?
5. What is a Package? Explain procedure to create a Package?

SECTION-B

6. Explain about Abstract class with example?
7. Explain the concept of Exception Handling Mechanism in java.
8. What is Thread? Explain different ways of creating Thread?
9. Explain various steps involved in an Applet?
10. What is JDBC? Explain JDBC connectivity steps?

PART – 2

Answer any **FIVE** questions.

Each question carries 5 marks. **5x5=25 marks**

11. Describe Java Virtual Machine. ?
12. Explain various String operations?
13. What is Type casting? Explain with example.
14. Explain Thread Life Cycle?
15. What is stored procedure?
16. What are different data types available in java?
17. Explain Super keyword with example?
18. Explain different types of packages.

II B.Sc. Computer Science (20CS5)

FOURTH SEMESTER

OPERATING SYSTEMS

(W.e.f. 2020-21 Admitted Batch)

Time: 3 Hours **MODEL QUESTION PAPER** **Max. Marks: 75**

PART – 1

Answer any **FIVE** questions choosing at least two from each section.
Each question carries 10 marks. **5x10=50 Marks**

SECTION-A

1. What is an Operating System and Explain Operating System Functions?
2. Explain types of Operating Systems?
3. What is the difference between kernel mode and user mode in a processor?
4. Explain about Process Scheduling?
5. Explain Deadlock Prevention in Operating System?

SECTION-B

6. Explain about Process Synchronization?
7. Explain about Memory Allocation Strategies?
8. Explain about Segmentation?
9. Write about File Allocation Methods?
10. Explain about Android Application Architecture?

PART – 2

Answer any **FIVE** questions. Each question carries 5 marks. **5x5=25 marks**

11. Write about Time Sharing Operating System?
12. What is System call and explain its Types?
13. What are the Necessary and Sufficient conditions for Deadlock?
14. What is Paging?
15. Write about File Operations?
16. Write about Real time Operating Systems?
17. What is Thread with Example?
18. What is Critical section?

II B.Com (Computer Applications) (20DBMS4)

FOURTH SEMESTER SYLLABUS

DATA BASE MANAGEMENT SYSTEMS

(W.e.f. 2020-21 Admitted Batch)

Time: 3 Hours **MODEL QUESTION PAPER** **Max. Marks: 75**

PART – 1

Answer any **FIVE** questions choosing at least two from each section.
Each question carries 10 marks. **5x10=50 Marks**

SECTION-A

1. Explain about Classification of Database Management System.
2. Explain about Objectives of Database Management System.
3. Explain about Data Models.
4. Explain about Database architecture
5. Explain about Aggregation and Composition.

SECTION-B

6. Explain about concepts of ER Model with an example.
7. Explain about Data Definition Language commands with syntax.
8. Explain the aggregate functions in SQL with syntax.
9. Explain about Exception Handling with example program.
10. Explain about different types of Triggers.

PART – 2

Answer any **FIVE** questions. Each question carries 5 marks. **5x5=25 marks**

11. What is the difference between Data and Information?
12. Write the advantages of DBMS.
13. Write about classification of Entity Set?
14. What are the Data Types in SQL?
15. Write the steps to create PL/SQL program.
16. What are the components of DBMS?
17. What is the Concept of Relational Integrity?
18. Write about Cursors

III B.Sc. Computer Science

FIFTH SEMESTER

Course 6A: Web Interface Designing Technologies (20CS51)

(W.e.f. 2020-21 Admitted Batch)

Time: 3 Hours **MODEL QUESTION PAPER** **Max. Marks: 75**

PART – 1

Answer any **FIVE** questions choosing at least two from each section.

Each question carries 10 marks. **5x10=50**

Marks

SECTION-A

1. Explain about different types of Lists in HTML with examples?
2. Explain HTML frames with example?
3. Explain about HTML media?
4. Explain about CSS counters and CSS responsive?
5. Explain about String manipulations in Java Script?

SECTION-B

6. Explain about Data validation in Java Script with example?
7. Explain about installing and configuring word press?
8. Explain about media adding, editing, deleting media elements?
9. Explain about extending word press with plug-ins?
10. Explain about protecting word press website from hackers?

PART – 2

Answer any **FIVE** questions. Each question carries 5 marks. **5x5=25 Marks**

11. Write the differences between web applications and desktop applications
12. Explain about table properties in HTML.
13. Write about HTML form elements.
14. Write the syntax for colours and borders in CSS.
15. Write the differences between HTML and DHTML.
16. Explain about Data and Objects in Java Script.
17. Write about wamp server.
18. Write about parent and child themes.

III B.Sc. Computer Science

FIFTH SEMESTER

Course 7A: Web Application Development using PHP & MYSQL (20CS52)

(W.e.f. 2020-21 Admitted Batch)

Time: 3 Hours **MODEL QUESTION PAPER** **Max. Marks: 75**

PART – 1

Answer any **FIVE** questions choosing at least two from each section.

Each question carries 10 marks. **5x10=50**

Marks

SECTION-A

1. Explain about different Loops in PHP?
2. Explain about user defined functions in PHP.
3. Explain about Object Instance working with Strings.
4. Explain about Date and Time functions in PHP.
5. Explain about Sending Mail on Form Submission.

SECTION-B

6. Explain about Working with session variables and passing session IDs in the Query String.
7. Explain about reading from a file and appending to file.
8. Explain how to modify existing images
9. Explain about connecting to MySQL with PHP.
10. Explain about Record Addition and Record Deletion mechanisms.

PART – 2

Answer any **FIVE** questions. Each question carries 5 marks. **5x5=25 marks**

11. Write about Data types in PHP.
12. Explain about variable Scope.
13. Write about Array related functions.
14. Explain about formatting strings with PHP.
15. Write about setting a Cookie with PHP.
16. Explain about validating files.
17. Write about image creation process.
18. Write about MySQL Versus MySQL Functions.

III B.Com (Computer Applications)
FIFTH SEMESTER

Course 6C: Mobile Application Development
(W.e.f. 2020-21 Admitted Batch)

Time: 3 Hours **MODEL QUESTION PAPER** **Max. Marks: 75**

PART – 1

Answer any **FIVE** questions choosing at least two from each section.

Each question carries 10 marks. **5x10=50 Marks**

SECTION-A

1. Explain about need of Android.
2. Explain about Tools and software required for developing an Application.
3. Detailed note on Android development tools.
4. Write about the looping statements in python with an example?
5. Explain about fundamentals of UI design?

SECTION-B

6. Explain about text view.
7. What is android system architecture?
8. Explain the concept of Android Security model.
9. Explain the concept of MIT App Inventor
10. Explain the concept of Audio& Video.

PART – 2

Answer any **FIVE** questions. Each question carries 5 marks. **5x5=25 marks**

11. What are the features of Android?

12 .Explain open headset alliance?

13. Write about operating system.

14 .Discuss Android activities?

15. Define directory structure.

16. What are date pickers?

17. Discuss about Android platform services?

18. What are files?

III B.Com (Computer Applications)
FIFTH SEMESTER
Course 7C: Cyber Security and Malware Analysis
(W.e.f. 2020-21 Admitted Batch)

Time: 3 Hours **MODEL QUESTION PAPER** **Max. Marks: 75**

PART – 1

Answer any **FIVE** questions choosing at least two from each section.

Each question carries 10 marks. **5x10=50 Marks**

SECTION-A

1. Explain the concept of OSI Reference model.
2. Discuss about Networking devices and all layer wise attacks.
3. What is NIST Cyber security framework? Explain the features of NIST Cyber security framework
4. What are the Functions of NIST Cyber security framework
5. Explain about vulnerabilities of OWASP?

SECTION-B

6. Explain about web application firewall.
7. What is Malware analysis? Explain the types of malware.
8. Explain the concept of Antivirus and firewalls.
9. Explain the concept of Cybercrime and the legal landscape around the world
10. Explain the concept of Challenges to Indian law and cybercrime scenario in India.

PART – 2

Answer any **FIVE** questions. Each question carries 5 marks. **5x5=25 marks**

11. What are cyber, cyber-crime and cyber-security?
12. List out the types of computer networks?
13. Write about the components of the framework.
14. Discuss the functions of NIST cyber security framework?
15. Define OWASP.
16. What is Indian IT ACT 2000?
17. Discuss about Ran some ware.
18. Discuss about VM ware.