

Roll No. _____

[Total No. of Pages : 2

PGDIIS- 1304 A-18
PGDCA IInd Semester Examination
COMPUTER SCIENCE
(Computer Networks)
Paper : 2.2 HC
(Old)

Time : 3 Hours

Maximum Marks : 80

Instructions to Candidates:

- 1) *Answer any **five** questions*
- 2) *All question carry **equal** marks.*

1. a) What is Networking? Explain its need and advantages. (8)
b) What are the types of transmission media & Mention its properties. (8)
2. a) Compare the following
i) Digital and analog signaling
ii) Asynchronous and Synchronous transmission technologies. (8)
b) What is protocol? Give hardware and software protocols. (8)
3. a) What are the different types of OSI IEEE 802 Standards? (8)
Explain any two of them.
b) Explain
i) FDDI
ii) ATM
iii) ARC Net. (8)
4. a) Write a note on connectivity devices used in networking. (8)

- b) Explain in detail TCP/IP protocols. (8)
5. a) Explain OSI model with a neat diagram. (8)
- b) Explain the following:
- i) FTP
 - ii) SMTP
 - iii) TELNET
 - iv) NFS. (8)
6. a) Explain hardware and software required for setting up a small LAN using windows. (8)
- b) What is network administration? Explain various tasks associated with network administration. (8)
7. a) What is network security? What are network security issues and threats? Explain. (8)
- b) Explain need and features of firewalls. (8)
8. a) Explain encryption and decryption techniques with example. (8)
- b) Explain digital signature and digital certificates technology. (8)
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Roll No. _____

[Total No. of Pages : 2

PGDIIS- 1319 A-18
PGDCP and SA IInd Semester Examination
COMPUTER SCIENCE
(Programming in C++)
Paper No: SCT 2.2
(New)

Time : 3 Hours

Maximum Marks : 80

Instructions to Candidates:

- 1) *Answer any Five questions*
- 2) *All question carry **equal** marks.*

1. a) Explain OOP principles. (8)
b) Write the general structure of C++ program. Explain it. (8)
2. a) Describe with examples, the use of enumeration data type. (8)
b) Define keywords, identifiers, constants, strings. (8)
3. a) What is iteration? Explain iterative statements. (8)
b) How is a member function of a class defined? (8)
4. a) Write a C++ program to illustrate the use of class. (8)
b) What is friend function? Explain merits and demerits of using friend function. (8)

5. a) Define constructor. Explain types of constructor. (8)
b) What are the different forms of inheritance. (8)
6. a) Write a C++ program to implement runtime polymorphisms. (8)
b) Describe the mechanism of overloading binary operator using friend function. (8)
7. a) Write a short note on file handling in C++. (8)
b) What are the purpose of following functions? seekg (), seekp () tellg () and tellp (). (8)
8. a) Write a function template for finding the minimum value contained in an array. (8)
b) How is an exception handled in C++. (8)
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Roll No. _____

[Total No. of Pages : 2

PGDIIS- 1305 A-18
PGDCA IInd Semester Examination
COMPUTER SCIENCE
(Data Structures using C)
Paper : 2.1 HC
(Old)

Time : 3 Hours

Maximum Marks : 80

Instructions to Candidates:

- 1) *Answer any five questions*
- 2) *All question carry equal marks.*

1. a) What is stack? What are the stack applications? Explain any one application with an example. (8)
b) Define queue. Explain primitive operations on queues. (8)
2. a) What is a node? Explain the memory representation of a linked list with a neat diagram. (8)
b) Explain different types of linked lists with illustrations. (8)
3. a) List and define eight terminalologies of tree. (8)
b) Explain B-Tree, B+ and B* trees. (8)
4. a) Explain tree traversal methods with examples. (8)
b) Explain segmential searching. (8)
5. a) What is sorting? Explain quick sort with an example. (8)
b) What is the time complexity of merge sort? Explain it with an example. (8)
6. a) How searching a binary search tree for a specific key? Explain. (8)
b) Explain selection sort with its time complexity. (8)

7. a) What is a graph? Explain different representations of a graph. (8)
- b) Write a short notes on :
- i) Depth first search
- ii) Breadth first search. (8)
8. a) Explain spanning and minimum spanning trees with an example. (8)
- b) Write a short note on applications of graphs. (8)



Roll No. _____

[Total No. of Pages : 2

PGIIS-N 1033 A-18
M.Sc. IInd Semester Examination
COMPUTER SCIENCE
(Data Structures Using C++)
Paper : HCT 2.1
(New)

Time : 3 Hours

Maximum Marks : 80

Instructions to Candidates:

- 1) Section A is *compulsory*.
- 2) Answer any *five* questions from Section B.

Section - A

Answer the following questions.

(10×2=20)

1.
 - a) What are the main objectives of Data structure?
 - b) What are the differences between linear search and binary search?
 - c) In what way bubble sort is different from quick sort?
 - d) What are the advantages and limitations of doubly linked list?
 - e) List out the differences between array based and linked list based implementation of list data structure.
 - f) What are the operations performed on a singly linked list?
 - g) In what way recursive routines are different from iterative routines?
 - h) What are the limitations of linear queue?
 - i) Write a recursive postorder tree traversal algorithm.
 - j) State the applications of Graphs in computer science.

Section - B

2.
 - a) Explain array representation. **(6)**
 - b) Write the binary search algorithm and discuss its time complexity. **(6)**

3. a) Write a linear search algorithm and its best, average and worst case time complexity. (6)
- b) Illustrate quick sort on the following set of elements and give its time complexity:
30, 80, 70, 55, 38, 15. (6)
4. a) Write algorithms to insert an element to the beginning of a singly linked list and delete the last element of a singly linked list. (6)
- b) What are the advantages and disadvantages of linked list in contrast to arrays? Give examples. (6)
5. a) Explain self referential structure. (6)
- b) Write algorithms to insert an element into a sorted doubly linked list and to display the elements of the list. (6)
6. a) Write an algorithm to convert a parenthesized infix expression to an equivalent postfix expression. (6)
- b) What are the disadvantages of linear queue? How is it overcome in circular queue? Explain with an example. (6)
7. a) Define Binary tree. Explain any two operations performed on a binary tree. (6)
- b) Define Graph. Explain any two graph representations and illustrate the same. (6)
8. Write notes on any **Two** of the following : (2×6=12)
- a) Merge sort.
- b) Circular linked list.
- c) Representation of stacks using linked list.
- d) Expression trees.
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Roll No. _____

[Total No. of Pages : 2

PGDIIS- 1300 A-18
PGDCA IInd Semester Examination
COMPUTER SCIENCE
(Software Engineering)
Paper : HCT 2.1
(New)

Time : 3 Hours

Maximum Marks : 80

Instructions to Candidates:

- 1) *Answer any FIVE questions*
- 2) *All question carry equal marks.*

1. a) Define software engineering? What are the primary goals of it. (8)
b) List out the different sources of software standards. (8)
2. a) Explain the different phases of waterfall model of software development. (8)
b) Discuss the features of spiral model of software development process. (8)
3. a) Describe the fundamental principles of structured design. (8)
b) Give an overview of object - oriented design concepts. (8)
4. a) Explain Top - down and Bottom - up integration testing. (8)
b) Discuss Alpha and Beta testing. (8)
5. a) Explain the concept of static software testing. (8)
b) Explain white - box testing in detail. (8)
6. a) What are different test activities? Explain. (8)
b) Write the mechanism for testing boundary condition. (8)

7. a) List out major factors that influence the software costs. (8)
- b) Discuss cost - estimation techniques for any software project. (8)
8. a) Discuss how cost estimated using cocomo method. (8)
- b) What is estimation? Explain observations in estimation. (8)



Roll No. _____

PGDIIS 1320 A-18
P.G.D.C.P & S.A. IInd Semester Examination
COMPUTER SCIENCE
(Programming in VB.NET)
Paper : SCT-2.1
(New)

Maximum Marks : 80

Time : 3 Hours

Instructions to Candidates:

- 1) Answer any **FIVE** questions.
- 2) All questions carry 16 marks each.

1. a) Explain any four advantages of .NET framework. (8)
b) What is CLR? What are the Functions of CLR? (8)
2. a) What is event? Enlist various types of keyboard events. (8)
b) How to declare variable in VB. NET? Explain with example. (8)
3. a) What is array? Explain the creation and using a different types of array. (8)
b) Write the properties and methods of the following control
i) Label ii) Button
iii) Text Box iv) Picture. (8)
4. a) Discuss conditional statements in VB.NET. (8)
b) List out Built-in Dialog Box and Explain. (8)
5. a) What is MDI form? How to create it and write the MDI application, Explain with example. (8)
b) What are the various access specifier of VB.NET. (8)
6. a) Write a steps to create menu in .NET (8)
b) What is method? What are the types of methods. (8)

[Contd....

7. a) What is method over loading and Explain with example. (8)
b) Explain term inheritance with example. (8)
8. a) Write a VB.Net program to add three text Boxes at runtime. (8)
b) Write a short notes on (8)
i) ADO.net architecture
ii) CLR Features.
iii) Input Box
iv) ASP. Net pages life cycle events.
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Roll No. _____

[Total No. of Pages : 2]

PGDIIS- 1298 A-18
PGDCA IInd Semester Examination
COMPUTER SCIENCE
(Programming in VB.Net)
Paper : SCT 2.1
(New)

Time : 3 Hours

Maximum Marks : 80

Instructions to Candidates:

- 1) *Answer any five questions*
 - 2) *All questions carrying equal marks.*
1. a) What is VB.Net? Explain advantages of .Net. (8)
b) Who do you mean by IDE environment in .Net? Explain. (8)
 2. a) List the .Net frameworks features. (8)
b) Explain CLR with a neat diagram. (8)
 3. a) Define data type? Explain different data types available in VB.Net. (8)
b) What is branching? Explain any two branching statements in VB.Net. (8)
 4. a) What is array? Explain different types of arrays in VB.Net. (8)
b) Explain msgbox and inputbox. (8)
 5. a) Explain the following controls :
i) Textbox
ii) Label
iii) Scrollbox
iv) Checkbox. (8)
b) What are the uses of fontdialog and colordialog. (8)

6. a) Design GUI and write code for calculate are of a rectangle. (8)
b) What is MDI? What are its uses. (8)
7. a) What is destructor? Explain with example of destructor in VB.Net. (8)
b) Write a note on objects and class. (8)
8. a) What is inheritance? Explain. (8)
b) Explain ADO.Net object modes. (8)
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Roll No. _____

[Total No. of Pages : 2

PGDIIS 1320 A-18
P.G.D.C.P & S.A. IInd Semester Examination
COMPUTER SCIENCE
(Programming in VB.NET)
Paper : SCT-2.1
(New)

Time : 3 Hours

Maximum Marks : 80

Instructions to Candidates:

- 1) Answer any **FIVE** questions.
- 2) All questions carry 16 marks each.

1. a) Explain any four advantages of .NET framework. (8)
b) What is CLR? What are the Functions of CLR? (8)
2. a) What is event? Enlist various types of keyboard events. (8)
b) How to declare variable in VB. NET? Explain with example. (8)
3. a) What is array? Explain the creation and using a different types of array. (8)
b) Write the properties and methods of the following control
i) Label ii) Button
iii) Text Box iv) Picture. (8)
4. a) Discuss conditional statements in VB.NET. (8)
b) List out Built-in Dialog Box and Explain. (8)
5. a) What is MDI form? How to create it and write the MDI application, Explain with example. (8)
b) What are the various access specifier of VB.NET. (8)
6. a) Write a steps to create menu in .NET (8)
b) What is method? What are the types of methods. (8)

7. a) What is method over loading and Explain with example. (8)
b) Explain term inheritance with example. (8)
8. a) Write a VB.Net program to add three text Boxes at runtime. (8)
b) Write a short notes on (8)
i) ADO.net architecture
ii) CLR Features.
iii) Input Box
iv) ASP. Net pages life cycle events.
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Roll No. _____

[Total No. of Pages : 2

PGIIS-O 1029 A-18
M.Sc. IInd Semester Examination
COMPUTER SCIENCE
(Design and Analysis of Algorithms)
Paper : HCT 2.1
(Old)

Time : 3 Hours

Maximum Marks : 80

Instructions to Candidates:

- 1) *Section A is compulsory.*
- 2) *Answer any FIVE questions from Section B.*

SECTION - A

1. a) What are the properties of an algorithm. (10×2=20)
 b) What is space complexity.
 c) Define efficiency of algorithm.
 d) What is divide and conquer technique?
 e) Write the difference between greedy and dynamic programming.
 f) What is string matching?
 g) What is minimum spanning tree?
 h) Write the recursive functions for binary tree traversal.
 i) What is FFT?
 j) Distinguish between DFS and BFS.

SECTION - B

2. a) Write the properties of a Good algorithm. (6)
 b) Explain order of growth using limits with suitable examples. (6)
3. a) Briefly explain Empirical analysis of algorithms. (6)
 b) Explain bubble sort and analyse its time complexity. (6)

4. a) Compute the time complexity of binary search. (6)
b) Analyse the time complexity of quick sort in worst case. (6)
 5. a) Explain Gaussian elimination. (6)
b) Describe an algorithm with an example to compute binomial coefficient. (6)
 6. a) Compute the time complexity of Floyd's algorithm. (6)
b) Explain knapsack problem using dynamic programming. (6)
 7. a) Explain greedy technique with suitable example. (6)
b) What is Huffman tree? Explain an algorithm to construct Huffman tree. (6)
 8. Write a note on any two of the following : (2×6=12)
 - a) P, NP and NP complete problems.
 - b) Discrete Fourier Transformation.
 - c) Topological sorting.
 - d) Convex - hull problems.
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Roll No. _____

[Total No. of Pages : 2

PGDIIS- 1299 A-18
PGDCA IInd Semester Examination
COMPUTER SCIENCE
(Web Technologies)
Paper : HCT 2.2
(New)

Time : 3 Hours

Maximum Marks : 80

Instructions to Candidates:

- 1) *Answer any five questions*
 - 2) *All questions carrying equal marks.*
1. a) Give the top screen resolutions world wide? What is the best size. (8)
b) Describe effective web design principles. (8)
 2. a) Define Web - browser? Explain briefly any three web - browsers. (8)
b) Explain how to create a simple web - page with HTML. (8)
 3. a) Write characteristics of clients and servers. (8)
b) Explain web - browser architecture. (8)
 4. a) What is Web - server? Explain the web - server working. (8)
b) Explain three basic types of web documents. (8)
 5. a) What is Java Script? What are its merits and limitations. (8)
b) Explain the procedure of enabling and disabling javascript in internet explorer. (8)
 6. a) Explain loop structures in Javascript with their syntax. (8)
b) Write a javascript program to find area of a triangle for the given three sides. (8)

7. a) What is XML? What are important characteristics of XML. (8)
- b) What are syntax rules of XML declaration? Explain with an example. (8)
8. a) Explain the categories of XML tags. (8)
- b) Discuss internal DTD and external DTD. (8)



Roll No. _____

[Total No. of Pages : 2

PGDIIS- 1303 A-18
PGDCA IInd Semester Examination
COMPUTER SCIENCE
(Web Technology)
Paper : 2.3 SC(c)
(Old)

Time : 3 Hours

Maximum Marks : 80

Instructions to Candidates:

- 1) *Answer any **five** questions*
- 2) *All question carry **equal** marks.*

1. a) What is inter networking? Explain internet applications. (8)
b) Explain IPV6. (8)
2. a) Define HTML & XML. Explain formatting tags of HTML with example. (8)
b) Write HTML document to demonstrate <table> tag. (8)
3. a) What is cascading style sheet? Explain different types of CSS. (8)
b) Explain different type of lists with an example. (8)
4. a) What is XML? Explain difference between HTML & XML. (8)
b) Explain XML namespace with example. (8)
5. a) What is javascript? Explain the operators with an example. (8)
b) Write a javascript program to find sum of N numbers. (8)
6. a) Define Array. Describe array object with an example. (8)
b) Write a javascript program to find largest of three numbers. (8)

7. a) Define PHP. Explain conditional statements with an example. (8)
- b) Develop PHP form for student registration. (8)
8. Write a short note on any **Two** of the following : (2×8=16)
- a. World Wide Web (WWW).
- b. TCP/IP.
- c. Document object model.
- d. Event Handler in DOM.
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Roll No. _____

[Total No. of Pages : 2

PGDIIS- 1302 A-18
PGDCA IInd Semester Examination
COMPUTER SCIENCE
(Programming in Java)
Paper : 2.3 SC(e)
(Old)

Time : 3 Hours

Maximum Marks : 80

Instructions to Candidates:

- 1) *Answer any five questions*
- 2) *All question carry equal marks.*

1. a) Describe looping statements of Java with examples. (8)
b) Explain jumping statements of Java
i) Break
ii) Continue
iii) Return. (8)
2. a) Explain string and string buffer classes. (8)
b) How class and object are created? Explain with example. (8)
3. a) What is interface? Explain packages and interfaces. (8)
b) What is exceptional handling? Explain with an example. (8)
4. a) What is multithreading? Explain Runnable Interface. (8)
b) Explain basic input/output streams of Java. (8)
5. a) Write a short note on Java packages. (8)
b) Explain AWT classes. What are AWT controls? Explain. (8)

6. a) Describe Event handling with example. (8)
- b) What is Java swing? Explain text fields, Buttons and combo Boxes. (8)
7. a) What is JDBC? Discuss its connectivity with backend database. (8)
- b) Explain Java RMI classes and Interfaces. (8)
8. a) What is servlets? Discuss Java servlet development kit. (8)
- b) Explain RMI - TWO tier architecture. (8)
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PGDIIS 1320-A A-18
P.G.D.C.P and S.A. IInd Semester Examination
COMPUTER SCIENCE Elective-I
(Web Technology and Java Programming)
Paper : 2.3(SC)(e)
(Old)

Time : 3 Hours

Maximum Marks : 80

Instructions to Candidates:

- 1) Answer any five questions.
- 2) All questions carry equal marks.

1. a) What is networking? Explain
 - i) Internet
 - ii) WWW
 - ii) Webpage
 - iv) Website. (8)
- b) Explain OSI model with a neat diagram. (8)
2. a) Explain various Internet and web technologies. (8)
- b) What is HTML? Explain formatting (text) and table creating tags of HTML. (8)
3. a) Explain the complete process of website designing. (8)
- b) How to add CSS, graphics and color to the webpages? Discuss. (8)
4. a) Write a HTML code to create home webpage of your college. (8)
- b) Discuss about website hosting and maintenance. (8)
5. a) What are the different data types available with Java programming Language. (8)
- b) Explain Java operators with example. (8)
6. a) Write conditional statements syntax and demonstrate their use with an example. (8)
- b) What is looping? Discuss different looping statements of Java. (8)

7. a) Explain Inheritance concept of Java with an example. (8)
b) Write a short note on Java applets. (8)
8. a) Write a brief overview of CGI programming. (8)
b) Discuss in detail about string handling packages. (8)
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Roll No. _____

[Total No. of Pages : 2

PGDIIS- 1297 A-18
PGDCA IInd Semester Examination
COMPUTER SCIENCE
(Internet and its Applications)
Paper : OET 2.1
(New)

Time : 3 Hours

Maximum Marks : 80

Instructions to Candidates:

- 1) *Answer any FIVE questions*
- 2) *All question carry equal marks.*

1. a) Define Programming language? Discuss few best programming languages to learn in 2018. (8)
b) What is Personnel computer? Explain different types of PCS. (8)
2. a) Discuss the basic requirements for Internet. (8)
b) Write the history and applications of WWW. (8)
3. a) What is FTP? Explain. (8)
b) What is search engine? List some popular search engines. (8)
4. a) Explain how to search internet effectively. (8)
b) Explain any four features of Internet Explorer. (8)
5. a) What is electronic mail? Explain the steps to create a new email address/account. (8)
b) Write the steps to check email/inbox in your email. (8)
6. a) Write the HTML document structure? Explain. (8)
b) Write any four formatting tags with their syntax and functions. (8)
7. a) Define E - commerce? What are its advantages. (8)
b) What is e - marketing? Explain. (8)

8. a) What is e - wallet? Explain different types of e-wallets. (8)
- b) What is smart card? Explain any three types of smart cards briefly. (8)
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Roll No. _____

[Total No. of Pages : 2

PGIIS-O 1030 A-18
M.Sc. IInd Semester Examination
COMPUTER SCIENCE
(Database Management System)
Paper : HCT 2.2
(Old)

Time : 3 Hours

Maximum Marks : 80

Instructions to Candidates:

- 1) **Section A is compulsory.**
- 2) **Answer any FIVE questions from SECTION B.**

SECTION - A

1.
 - a) Define the terms database and DBMS. **(10×2=20)**
 - b) What is physical Schema.
 - c) What is ER model.
 - d) Define the term entity.
 - e) What is weak and strong entity sets.
 - f) What is denormalisation.
 - g) Define SQL.
 - h) Define functional dependency.
 - i) What is view.
 - j) Write the types of relationships.

SECTION - B

2.
 - a) Explain the characteristics of database approach. **(6)**
 - b) State the advantages of DBMS over file processing system. **(6)**
3.
 - a) Briefly discuss classification of data models. **(6)**
 - b) What is schema and instance? Write the difference between schema and instance. **(6)**

4. a) Explain three schema architecture. (6)
b) Briefly explain relational constraints. (6)
 5. a) With suitable example explain set operations in relational algebra. (6)
b) Briefly discuss classification of SQL commands. (6)
 6. a) What is normalisation? Explain 3NF with suitable example. (6)
b) What is join? Explain types of Join operations. (6)
 7. a) Briefly discuss query processing. (6)
b) Explain the properties of transaction processing. (6)
 8. Write note on any **Two** of the following : (2×6=12)
 - a) Object oriented databases.
 - b) Concurrency control techniques.
 - c) Distributed database systems.
 - d) Client Server architecture.
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Roll No. _____

[Total No. of Pages : 3

PGIIS-N 1034 A-18
M.Sc. IInd Semester Examination
COMPUTER SCIENCE
(Relational Database Management System)
Paper No : HCT 2.2
(New)

Time : 3 Hours

Maximum Marks : 80

Instructions to Candidates:

- 1) *Section A is compulsory.*
- 2) *Answer any five questions from Section B.*

SECTION - A

1. Answer the following questions. **(10×2=20)**
- a) What is database? Discuss the characteristics of database.
 - b) What are Schemas and instances? Explain.
 - c) What is Relational Data Base Management System? Discuss its advantages over a database management system.
 - d) What is mapping? How Relational database design by Entity - Relationship is to relational mapping.
 - e) How Arithmetic and Aggregate operators used in a database?
 - f) What are the Anomalies? Discuss its significance in designing a database.
 - g) What is dependency? Discuss the type of dependencies used in a database design.
 - h) What are concurrency control techniques?
 - i) What is distributed databases? Discuss the various types of Distributed database systems.
 - j) Define Data Definition Language (DDL) - and Data Manipulation Language (DML) and their uses in designing the database.

SECTION - B

2. a) Explain the advantages of Database Management system over a File Management system. **(6)**

- b) What are the responsibilities of Database Administrator (DBA) and the Database designer? (6)
3. a) Explain the following with their advantages and disadvantages. Hierarchical database model b. Network database model c. Relational database model. (6)
- b) Explain the operations of a three - tier client / n - tier architecture for RDBMS with a diagram. (6)
4. a) What are integrity constraints? Discuss the various update operations on relations and the type integrity constraints that must be checked for each update operation. (6)
- b) Explain the left outer join, right outer join and full outer join with example. (6)
5. a) Consider the following relational schema and answer the following queries using relational algebra ENP (Name, SSN, Bdate, Address, Sex, Salary, SSSN, DNO). (6)
- Department (Dname, DNO, MSSN, Msdate)
- Dept - loc (DNO, DLOC), project (Pname, Pno, PLOC, DNO)
- Works - ON (ESSN, PNO, HOURS)
- Dependent (ESSN, Dname, Sex, Bdate, relationship)
- Write the queries in relational algebra to :
- Retrieve the names of all employees in dNO = 5 who work more than 10hrs/ week on product 'X' project.
 - Retrieve the names of all Employees who work on every project.
 - For each department retrieve the department name, and the average salary of all the Employees working in that department.
 - List the names of all department managers who have no dependents.
 - Retrieve the average salary of all female Employees.
- b) Describe the anomalies due to interleaved executions in terms of two transactions T1 and T2. (6)
6. a) What is functional dependency? List the six rules for functional dependency. (6)
- b) Describe first, second, third normal forms. Explain how BCNF differs from third normal form. (6)

7. a) Discuss how serializability is used to enforce concurrency control in a database system. Why is serializability sometimes considered too restrictive as a measure of correctness for schedules? (6)
- b) What is the system log used for? What are the typical kinds of records in a system log? What are transaction commit points, and why are they important? (6)
8. Write a short note on any two of the following : (2×6=12)
- a) Applications of Database Management system.
- b) ACID Properties.
- c) Database security and authorization.
- d) Rollback.
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Roll No. _____

[Total No. of Pages : 2

PGIIS-N 1036 A-18
M.Sc. IInd - Semester Examination
COMPUTER SCIENCE
(Libre Office)
Paper : OET-2.1
(New)

Time : 3 Hours

Maximum Marks : 80

Instructions to Candidates:

1. Section A is compulsory.
2. Answer any five questions from Section - B

SECTION - A

(10×2=20)

1.
 - a) What are styles?
 - b) Define Mail Merge
 - c) How to create a template?
 - d) Define chart Wizard.
 - e) What is merging and splitting cells?
 - f) How to use graphic filters?
 - g) Define OLE
 - h) What is named Range and database range?
 - i) Write importance of presentation notes.
 - j) What do you mean by digital signing of documents?

SECTION - B

2.
 - a) Describe the steps involved in customizing a table of content's. **(6)**
 - b) List the various Graphics filters, Explain how to modify an Image. **(6)**
3.
 - a) Describe the use of columns to define page Layout. **(6)**
 - b) Explain find and replace text operation with suitable example. **(6)**

4. a) Illustrate cell Navigation with an example. (6)
b) Explain hiding and showing data in Calc. (6)
 5. a) How to change the appearance of charts using chart elements? (6)
b) What is the importance of picture toolbar in working with images in Calc. (6)
 6. a) Define scenario. Explain “what if” scenario. (6)
b) Explain the solver operation with an example. (6)
 7. a) Illustrate the structures of main window of Impress. (6)
b) What is animation? Explain the steps to create an animated object using custom animation. (6)
 8. Write notes on any Two of the following: (2×6=12)
 - a) Templates
 - b) Pie Charts
 - c) Hyperlinks and URL
 - d) PDF export.
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PGIIS-N 1038 A-18
M.Sc. IInd Semester Examination
COMPUTER SCIENCE
(Data Communications and Networks)
Paper : SCT 2.1
(New)

Time : 3 Hours

Maximum Marks : 80

Instructions to Candidates:

- 1) *Section A is compulsory.*
- 2) *Answer any five questions from Section B.*

SECTION - A

1. Answer the following questions. (10×2=20)
- a) What is meant by Data Communication?
 - b) What is the use of network cable?
 - c) Define Protocol.
 - d) How can a parity bit detect a damaged data unit?
 - e) What is the purpose of the timer at the sender side in systems using ARQ?
 - f) Define HDLC.
 - g) What is the use of class field in IP address?
 - h) Define subnetting.
 - i) List down the different types of timers.
 - j) What is Socket?

SECTION - B

2. a) Describe the functions of the layers in the OSI reference model. (6)
- b) Explain the structure of fiber cables with neat diagram. (6)
3. a) A network has n devices. Determine the number of cable links required for mesh, ring, bus and star topology. (6)
- b) Explain the modem standards and its transmission rates. (6)

4. a) With reference to the sliding window protocol explain selective repeat. (6)
b) Explain Hamming Code with an example. (6)
 5. a) How does Token Ring LAN operates? Discuss. (6)
b) Discuss about LRC. (6)
 6. a) Briefly discuss packet switching. (6)
b) Mention the limitations of Link State Routing Algorithm. (6)
 7. a) Discuss how SMTP works? (6)
b) Explain Congestion Control mechanism. (6)
 8. Write notes on any two of the following : (2×6=12)
 - a) Mess Topology.
 - b) Error detection and correction techniques.
 - c) IP Address.
 - d) Sliding window protocol.
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Roll No. _____

[Total No. of Pages : 2

PGIIS-N 1037 A-18
M.Sc. IInd Semester Examination
COMPUTER SCIENCE
(Android Applications)
Paper : SCT 2.2
(New)

Time : 3 Hours

Maximum Marks : 80

Instructions to Candidates:

- 1) *Section A is compulsory.*
- 2) *Answer any FIVE questions from Section B.*

SECTION - A

1. Answer the following questions. (10×2=20)

- a) What is Mobile Software Development?
- b) Write the steps for Setting up Android Development Environment.
- c) Differentiate android platforms.
- d) Define Anatomy of an Android Application.
- e) What is the use of Android Manifest File?
- f) What are the Resources in Android Development?
- g) Which are the different User Interface Screen Elements?
- h) How to design and use Buttons?
- i) Write the different Data and Storage APIs.
- j) How to display short notification and messages?

SECTION - B

2. a) Discuss Configuring the Android Development Environment. (6)
- b) Explain the procedure for Writing sample Android Application. (6)

3. a) Explain testing and Building Android Application. (6)
b) Write a note on Android SDK. (6)
 4. a) Explain the different Resource types and setting their values. (6)
b) Write a note on Defining the Application Using the Android Manifest File. (6)
 5. a) How to Access Resources in Application? Explain. (6)
b) Write the procedure for defining and using menu resources with example. (6)
 6. a) Explain Designing User interfaces with layouts. (6)
b) Write a note on Drawing and working with Animation. (6)
 7. a) Discuss Sharing Data between Applications with Content, Providers. (6)
b) Write the procedure for working with different services. (6)
 8. Write an note on any **TWO** of the following : (2×6=12)
 - a) The Open Handset Alliance.
 - b) Managing Application Resources.
 - c) Edit Text and Text View.
 - d) Managing User Accounts.
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Roll No. _____

[Total No. of Pages : 2]

PGIIS-O 1031 A-18
M.Sc. IInd Semester Examination
COMPUTER SCIENCE
(System Software)
Paper : SCT 2.1
(Old)

Time : 3 Hours

Maximum Marks : 80

Instructions to Candidates:

- 1) *Section A is compulsory.*
- 2) *Answer any five questions from Section B.*

Section - A

1. Answer the following questions. **(10×2=20)**
- a) Give addressing modes in SCI machines.
 - b) Differentiate the addressing modes between VAX and Pentium Pro architectures.
 - c) What are the modes used for addressing operands in memory of RISC machines.
 - d) List assembler directives.
 - e) What are the functions of Pass 2 in a simple SCI assembler?
 - f) How JMP instruction works in MSAM assembler?
 - g) What are the functions of Pass 2 in machine dependent loader?
 - h) Give differences between linkage loader and linkage editor.
 - i) What is conditional macro expansion?
 - j) How syntactic analyzer functions?

Section - B

2.
 - a) Describe instruction formats and instruction sets in SCI/XE machine. **(6)**
 - b) Discuss Cray T3E machine architecture. **(6)**
3.
 - a) Explain the program relocation mechanism in a machine dependent assembler. **(6)**
 - b) What is the role of control section in handling the programs with multiple sections? **(6)**

4. a) Describe design of absolute loader. (6)
b) Write machine dependent linking loader algorithm. (6)
5. a) How unique labels are generated in machine Independent macro processor? Explain. (6)
b) Discuss recursive macro expansion with an example. (6)
6. a) Write a note on general purpose macro processors. (6)
b) What is the role of finite automata in lexical analysis? Explain with an example. (6)
7. a) Give complete operator precedence in a general purpose compiler. (6)
b) Compare different ways of storage allocation methods. (6)
8. Write notes on any **two** of the following : (2×6=12)
a) Ultra SPARC architecture.
b) Literals.
c) Bootstrap loaders.
d) Machine dependent code optimization.
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