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PGIS-276 A-21

M.C.A. I Semester (CBCS) Degree Examination

COMPUTER SCIENCE

Python

Paper : 20MCA13T

(New Syllabus)

Time : 3 Hours

Maximum Marks : 80

Instructions to Candidates:

- 1) Answer any **Five** questions.
 - 2) All Questions carry **equal** Marks.
1. a) Explain Standard data types in python. (8)
b) Explain Control Statement with an example for each. (8)
 2. a) Define String. Explain the operations on string. (8)
b) Briefly explain looping statements with an example. (8)
 3. a) Write a program to print Fibonacci sequence using function. (8)
b) Explain key value pairs as arguments. (8)
 4. a) Write a program to perform operations on sets. (8)
b) How to create and access values in a dictionary ? Give an example. (8)
 5. a) Explain the concept of data storage and data formatting. (8)
b) How to create and import modules in python ? Explain (8)

6. a) Briefly explain Regular expressions. (8)
b) Explain the operations on files with examples. (8)
7. a) Write a program to print student information using class and objects. (8)
b) With an example explain multiple inheritance. (8)
8. Write notes on any **Two** of the following. (2×8=16)
a) Relational operators.
b) User defined functions.
c) Exceptions.
d) Concurrency and Networks.
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PGIS-278 A-21
M.C.A (2 Years Course) I Semester (CBCS) Degree Examination
COMPUTER SCIENCE
Cloud Computing
Paper : 20MCA17T
(New Syllabus)

Time : 3 Hours

Maximum Marks : 80

Instructions to Candidates:

- 1) Answer any **Five** questions.
 - 2) All Questions carry **equal** Marks.
1. a) Explain different cloud components with a neat diagram. (8)
b) Explain different cloud service models. (8)
 2. a) Explain major challenges faced by cloud computing. (8)
b) With a neat diagram, explain MS Windows AZURE architecture. (8)
 3. a) Explain workflows for coordination of multiple activities. (8)
b) Describe with a neat diagram, explain the Grep, the Web application. (8)
 4. a) Describe The MapReduce philosophy in detail. (8)
b) With a neat diagram, explain legacy windows applications on the cloud. (8)
 5. a) Explain taxonomy of process and system VMs. (8)
b) Describe the types of virtualization process. (8)
 6. a) With a neat diagram, explain Xen for x86 architecture. (8)
b) Explain with a neat diagram Virtural Machine Based Rootkit. (8)
 7. a) With a neat diagram, explain autonomic performance managers. (8)
b) with a neat diagram, explain the schematics of the ASCA algorithm. (8)
 8. Write notes on any **Two** of the following: (2×8=16)
 - a) Cloud Storage.
 - b) Digital content and Cloud Computing.
 - c) vBlades.
 - d) Dynamic Scaling.

PGIS-277 A-21
M.C.A. (2Years Course) I Semester (CBCS) Degree Examination
COMPUTER SCIENCE
Operating System Principles
Paper : 20MCA14T
(New Syllabus)

Time : 3 Hours**Maximum Marks : 80****Instructions to Candidates:**

- 1) Answer any **Five** questions.
 - 2) All Questions carry **equal** Marks.
1. a) What is operating system ? Explain simple Batch processing, Multiprogramming, Multitasking and Distributed Systems. **(8)**
 - b) Explain the purpose and importance of system calls in detail with example. **(8)**
 2. a) Discuss the services provided by the operating system for efficient system operation. **(8)**
 - b) Explain with a neat diagram, the working of a two layered operating System Structure. **(8)**
 3. a) Draw the state diagram of a process and label various transition. Explain the need of suspension. **(8)**
 - b) Explain different types of scheduling queues and types of schedulers. **(8)**
 4. a) Consider the following set of processes with the length of CPU burst time given in milliseconds. **(8)**

Process	Burst time	Priority	Arrival time
P1	10	3	0
P2	1	1	1
P3	2	3	2
P4	1	4	1
P5	5	2	2

Draw a Gantt Chart illustrating the execution of these jobs using **FCFS** scheduling algorithm and also calculate the average waiting time and average turn around time

- b) Write a synchronization solution for the Readers-Writers problem and Bounded Buffer using semaphore. **(8)**

5. a) How does dead lock avoidance differ from dead lock prevention? Explain. (8)
- b) Write an algorithm to determine whether a given system is in a deadlock and explain.(8)
6. a) With a neat sketch, explain how logical address is translated into physical address using paging mechanism. (8)
- b) What is trashing? How it occurs and explain different methods to prevent from trashing. (8)
7. a) Explain different operations performed on files. (8)
- b) A disk drive has 200 cylinders, numbered 0 to 199. The drive is currently serving a request at cylinder 53. The queue of pending request, in FIFO order is 98, 183, 37, 122, 14, 124, 65, 67, starting from the current head position, what is the total distance (in cylinders) that the disk arm moves to satisfy all the pending request for each of the following disk scheduling algorithms. (8)
- i) FCFS
- ii) SCAN
- iii) C-LOOK
8. Write notes on any **Two** of the following: (2×8=16)
- a) Cache Memory.
- b) Micro Kernels.
- c) Bankers Algorithm.
- d) System Threats.
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PGIS-275 A-21
M.C.A (2 Years Course) I Semester (CBCS) Degree Examination
COMPUTER SCIENCE
Data Structures
Paper : 20MCA12T
(New Syllabus)

Time : 3 Hours

Maximum Marks : 80

Instructions to Candidates:

- 1) Answer any **Five** questions.
 - 2) All Questions carry **equal** Marks.
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1. a) What is Data Structure? Explain the classification of Data Structures. (8)
b) What is an array? Explain different types of arrays with example. (8)

 2. a) Define Searching. Explain linear search technique with example. (8)
b) Explain Selection sort with example. (8)

 3. a) What is linked list? Explain operations on Single linked list. (8)
b) What are the advantages and disadvantages of linked list? List various applications of linked lists. (8)

 4. a) Explain the insertion operation of Circular linked list with neat diagram. (8)
b) What is double linked list? Explain the operations on double linked list. (8)

 5. a) Define Stack. Explain various operations on Stack. (8)
b) Convert the following infix expression to postfix expression using the given values.
a=4, b=2, c=2, d=4, e=2, f=5
i) $(a+b)*c/d*(e-f)$
ii) $a*b-(c+d)/e*f$ (8)

6. a) What is recursion? Write a recursive algorithm to generate Fibonacci series. (8)
b) Briefly discuss types of Queues. (8)
7. a) Explain different binary tree traversal techniques (Inorder, postorder, preorder). (8)
b) What is Binary Search Tree? Explain various operations on Binary Search Tree. (8)
8. Write notes on any **Two** of the following. (2×8=16)
a) Insertion sort.
b) Double Linked list.
c) Conversion of Postfix expression to infix expression with suitable example.
d) Expression tree.
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PGIS-274 A-21
M.C.A. (2 Years Course) I Semester Degree Examination
COMPUTER SCIENCE
DIGITAL LOGIC
Paper : 20MCA11T
(New Syllabus)

Time : 3 Hours

Maximum Marks : 80

Instructions to Candidates:

- 1) Answer any **Five** questions.
 - 2) Each Question carry **equal** Marks.
1. a) Convert the hexadecimal number F85E to binary and then convert it from binary to octal number (8)
b) Perform the subtraction for the following by using 9's complement method.
i) 753-864 ii) 20-1000 (8)
 2. a) Draw the truth table and graphic symbol of each logic gate. (8)
b) State and prove De'Morgan's theorem. (8)
 3. a) Simplify the following Boolean function using three variable K-Map:
$$F(x,y,z) = \sum(0,2,4,5,6). \quad (8)$$

b) Simplify the following Boolean function as SOP and POS. $F(A,B,C,D) = \sum(0,1,2,5,8,9,10).$ (8)
 4. a) Implement $F = (AB+CD+E)'$ by using AND-OR-INVERT method. (8)
b) Simplify the following function and implement with two level NOR gate circuit.
$$F(w,x,y,z) = \sum(5,6,9,10) \quad (8)$$

5. a) Discuss the block diagram of a sequential circuit. Give the examples. (8)
b) Implement a full adder circuit with a decoder and two OR gates. (8)
6. a) Explain the working of T-flip flop and show the logic diagram and excitation table. (8)
b) What is register? Explain 4- bit register with its logic diagram. (8)
7. a) Write the logic diagram of 4 bit synchronous binary counter and discuss its operation. (8)
b) What is memory unit ? Write the block diagram of a memory unit showing read operation with an example. (8)
8. Write short notes on any **Two** of the following. (2×8=16)
a) Boolean theorems.
b) Half adders.
c) J-K flip flop.
d) Ripple counter.
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PGIS-N-218 A-21
M.Sc. I Semester Degree Examination
COMPUTER SCIENCE
Digital Logic
Paper : HCT 1.1
(New Syllabus)

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 is a program.
 - b) Convert $412_{(10)}$ into an equivalent octal number.
 - c) Why complements are required?
 - d) What is non degenerate forms?
 - e) Implement AND by NAND gates
 - f) What is Parity Checker?
 - g) Define Decimal adder.
 - h) What is flip-flop?
 - i) Why Counters are required?
 - j) Represent $(-110)_{10}$ in a 8 bit register using sing 1's & 2's complements.

SECTION-B

2.
 - a) Perform the Subtraction of Binary numbers 101-11011 by using 1's & 2's Complement method. **(6)**
 - b) Explain Binary logic with switching Circuits. **(6)**

3. a) Simplify the Boolean function $\overline{(A+B)} \overline{(\overline{A+B})}$ (6)
- b) Express the Boolean function $F(A,B,C,D) = D(\overline{A+B}) + \overline{BD}$ in a sum of minterms. (6)
4. a) Simplify the following Boolean function F with don't care Conditions by using K-map method. (6)
- $$F = \overline{A} \overline{B} \overline{D} + \overline{A} C D + \overline{A} B C$$
- $$d = \overline{A} B \overline{C} D + A C D + A \overline{B} D$$
- b) Implement the Boolean function $\overline{A} \overline{B} \overline{C} D + \overline{A} B \overline{C} D + \overline{A} B C \overline{D} + \overline{A} B C D$ with NOR gates. (6)
5. a) Implement a full adder with two half adders and an OR gate. (6)
- b) Design a combinational circuit which convert BCD number to its corresponding 7-bit ASCII code (6)
6. a) Implement the following function with a multiplexer (6)
- $$F(A,B,C,D) = \sum (0,1,3,5,6,9,10,14).$$
- b) Explain JK flip-flop with truth table and logic diagram. (6)
7. a) Design a 4-bit Binary ripple counter. (6)
- b) Explain Arithmetic micro operations with examples. (6)
8. Write notes on any **Two** of the following (2×6=12)
- a) Demorgans theorems.
- b) Code Conversion.
- c) Magnitude Comparator
- d) Instruction codes.

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PGIS-N-221 A-21
M.Sc. I Semester Degree Examination
COMPUTER SCIENCE
Operating System Principles
Paper : SCT 1.1
(New Syllabus)

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) Define Distributed Systems.
 - b) Differentiate between system and application software.
 - c) What are main frame systems? List their objectives.
 - d) Define a thread. How do you create a thread in a program?
 - e) What are monitors? List the different types of monitors.
 - f) What are micro-kernels?
 - g) How deadlock occurs? List the different methods used to resolve it.
 - h) What is thrashing?
 - i) Define file mounting process.
 - j) What are the security problems that occur on a file?

SECTION - B

2.
 - a) Define Operating System. Discuss its role from different perspectives. **(6)**
 - b) What do you mean by PCB? Where is it used? What are its contents? Explain. **(6)**
3.
 - a) What are system calls? With examples explain different categories of system call? **(6)**
 - b) List different services of OS. Explain. **(6)**

4. a) Describe term monitor. Explain solution to dining philosopher's problem using monitor. (6)
b) What are semaphores? Explain solution to producer-consumer problem using semaphores. (6)
5. a) Explain any one synchronization problem for testing newly proposed sync scheme. (6)
b) Explain three requirements that a solution to critical-section problem must satisfy. (6)
6. a) What is deadlock. Describe necessary conditions for a deadlock situation to arise. (6)
b) Memory partitions of 100 kb, 500 kb, 200 kb, 300 kb, 600 kb are available how would best worst, first fit algorithm to place processes 212.417, 112.426 in order. Which is the best algorithm? (6)
7. a) Mention different file attributes and file types? (6)
b) Explain the method used for implementing directories. (6)
8. Write notes on any **Two** of the following: (2×6=12)
a) Direct and Indirect communications of message passing systems.
b) Principles of Concurrency.
c) Demand Paging.
d) System Threats.
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PGIS-N-219 A-21
M.Sc. I Semester Degree Examination
COMPUTER SCIENCE
Object Oriented Programming Using C++
Paper : HCT 1.2
(New Syllabus)

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) Define constants and variables.
 - b) What is an arithmetic expression? Give two examples.
 - c) What is ternary operator? How is it useful.
 - d) What are different access specifiers?
 - e) What is a constructor? Give types of constructors.
 - f) Write any two advantages of operator overloading.
 - g) What is a virtual function.
 - h) Differentiate between private inheritance and public inheritance.
 - i) What is an exception? Give any two examples.
 - j) Define a function template. What is its use?

SECTION - B

(5×12=60)

2.
 - a) Explain the syntaxes of if statement and its variations. Write a C++ program to find the smallest of three numbers.
 - b) Discuss about classification of functions. Define a function to find the smallest value in a list of n values.

3.
 - a) Write a C++ program to find display only prime numbers in a 2-d array of integers.
 - b) What are the advantages of using pointers? Explain.
 4.
 - a) Write a C++ program to illustrate nesting of member function calls.
 - b) Explain unary operator with an example.
 5.
 - a) What are static member functions? Illustrate with an example program.
 - b) How do you convert from one derived type to another derived type. Illustrate with an example program.
 6.
 - a) Explain the significance of a virtual base class with an example program.
 - b) Explain hybrid inheritance through a sample program.
 7.
 - a) Write a C++ program to find whether a string is a palindrome or not.
 - b) What is a class template? Give an example program to illustrate it.
 8. Write short notes on any **two** of the following: **(2×6=12)**
 - a) Switch statement
 - b) Friend function
 - c) Constructors
 - d) Relational operators
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PGIS-N-220 A-21

M.Sc. I Semester Degree Examination

COMPUTER SCIENCE

Programming in VB.Net

Paper : HCT 1.3

(New Syllabus)

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 CLR?
- b) Give an importance of class libraries.
- c) Enlist types of applications developed using VB.Net.
- d) What is a MSIL code?
- e) What is a collection in VB.Net?
- f) How does VB.Net subroutine work?
- g) What is the use of Timer control?
- h) How methods are different than the properties.
- i) What is disconnected architecture in .Net?
- j) Write the uses of Data grid control.

SECTION -B

2. a) What is .Net ? Why CLR is Called as resources incharge. (6)
b) What is an inter-operatability ? Explain . (6)
3. a) What is the use of assemblies ? Explain (6)
b) Explain solution explorer window of .Net IDE. (6)
4. a) Write a program in VB .Net to check whether entered number is armstrong or not(6)
b) Explain access modifiers used in VB.Net. (6)
5. a) Describe input box with suitable example. (6)
b) Illustrate the use of control array with example. (6)
6. a) Write a program to fill the Combo Box with all the month names. (6)
b) Explain Font and Color Dialog control with their major properties. (6)
7. a) Describe all data providers provided by ADO.Net. (6)
b) Write a program to insert, delete student's record from the SQL server database using ADO.Net. (6)
8. Write notes on any **two** of the following (2×6=12)
 - a) Format Tab
 - b) Open file dialogue control
 - c) Context menu
 - d) SQLDB

PGIS-O-218 A-21
M.Sc. I Semester Degree Examination
COMPUTER SCIENCE
Digital Logic And Computer Design
Paper : HCT 1.1
(Old Syllabus)

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 Synchronous Counters?
 - b) Explain any two functions of ALU.
 - c) Give any two uses of Accumulator.
 - d) What are the disadvantages of Demultiplexer?
 - e) Define Boolean Functions.
 - f) State Demorgan's Theorems.
 - g) What is Fetch & Execute Cycle?
 - h) Define I/O Interface.
 - i) What is the role of Status Register?
 - j) What is an Interrupt?

SECTION - B

2.
 - a) Explain Binary & Octal numbers with an example. **(6)**
 - b) Convert 15.34 of Hexadecimal to Octal number system. **(6)**
3.
 - a) Discuss Integrated Circuits in detail. **(6)**
 - b) Explain the properties of Boolean Algebra. **(6)**

4. a) Discuss Combinational Circuits with a neat diagram. (6)
b) Elaborate on Decoders in brief. (6)
5. a) Explain JK & T Flip Flops. (6)
b) Discuss Design of Counters in detail. (6)
6. a) Elaborate on Shift Registers in brief. (6)
b) Discuss the examples of Random Access Memory. (6)
7. a) Elaborate on Design of Arithmetic Logic Unit. (6)
b) Explain Micro program Control in brief. (6)
8. Write short Notes on (Any Two) of the following: (2×6=12)
a) Computer Console. (6)
b) Digital Logic Gates. (6)
c) Instruction Codes. (6)
d) Processor Unit. (6)
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PGIS-259 A-21
PGDCA. I Semester Degree Examination
COMPUTER SCIENCE
Computer Fundamental And Digital Logic
Paper : HCT - 1.1
(New)

Time : 3 Hours

Maximum Marks : 80

- Instructions to Candidates:**
1. Answer any **Five** questions.
 2. All questions carry **Equal** marks.

1. a) What is computer? Explain the block diagram of computer. (8)
b) What are the differences between system software and application software. (8)
2. a) What is input device? Explain any one input device with neat diagram. (8)
b) Explain the following : (8)
 - i. Operating system
 - ii. Hardware
 - iii. Compiler
 - iv. Translator
3. a) Explain first De-Morgans Theorem. (8)
b) Explain basic gates with truth table and circuit. (8)
4. a) Write any Seven Boolean laws. (8)
b) What is K- map? Write four variable K-map. (8)

5. a) Define Adder? Explain Half adder diagram. (8)
b) Write a note on Multiplexer. (8)
6. a) Define flip - flop. Explain RS - flip-flop with truth table. (8)
b) Write note on (8)
i. Decoder.
ii. Encoder.
7. a) Explain the following: (8)
i. Registers
ii. Bus
iii. Motherboard
iv. Processor
b) Define cache memory. Explain with neat diagram. (8)
8. a) Explain Ribbon cable, Expansion card, memory chip and SMPS. (8)
b) Write the characteristics of computer. (8)
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PGIS-264 A-21
PGDCP & SA. I Semester Degree Examination
COMPUTER SCIENCE
Computer Fundamental and Digital Logic
Paper : HCT - 1.1
(New)

Time : 3 Hours

Maximum Marks : 80

Instructions to Candidates: 1. Answer any **five** questions.
2. All questions carry **equal** marks.

1. a) What is software? Explain system software. (8)
b) Explain Micro, Mini and Super computer. (8)
2. a) Explain monitor, printer and plotter. (8)
b) Explain mouse with neat diagram. (8)
3. a) What is logic gate? Explain basic logic gate with example. (8)
b) Explain SOP, POS and K-map. (8)
4. a) What is multiplexer? Explain 4 - bit multiplexer. (8)
b) What is subtracter? Explain. (8)
5. a) What is Flip - Flop? Explain D - flip-flop. (8)
b) Explain system bus with neat diagram. (8)
6. a) Why NAND & NOR gate as a universal gate? (8)
b) What are the differences between primary and secondary memory? (8)

7. a) Explain the following :
- i. SMPS (8)
 - ii. Motherboard (8)
- b) Explain 4 - bit counter.
8. a) Write a short note on
- i. Computer (8)
 - ii. Expansion cards (8)
- b) Explain Cache memory.
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PGIS-262 A-21
PGDCA I Semester Degree Examination
COMPUTER SCIENCE
Database Management Systems
Paper : SCT 1.1

Time : 3 Hours

Maximum Marks : 80

- Instructions to Candidates:**
1. Answer any **five** questions.
 2. All questions carry **equal** marks.

1. a) List and briefly explain the characteristics of database approach. (8)
b) Explain three schema architecture of DBMS with a neat diagram. (8)
2. a) What is data model? Explain relational data model. (8)
b) Give an overview of database languages. (8)
3. a) Describe various data models used for database design. (8)
b) What is an attribute? Explain different types of attributes with an example. (8)
4. a) List and explain the symbols used to draw ER - diagram. (8)
b) Develop an ER - diagram for banking enterprise system. (8)
5. a) What is constraints? Explain commonly used constraints in SQL. (8)
b) Consider the following table :
Employee (Emp - Name, Dept - Name, Salary). Write SQL statements for the following.
 - i. Find the employee name who is getting lowest salary.
 - ii. Find all the department name which has highest average salary
 - iii. Find all the department where more than 60 employees are working.
 - iv. Find the employees whose salary is higher than the average salary of their department. (8)

6. a) Explain specifying constraints as assertions and triggers in SQL. (8)
 - b) Explain selection, projection and joining operations with an example. (8)
 7. a) What is normalization? Explain 1NF, 2NF and 3NF. (8)
 - b) Discuss functional dependency in DBMS. (8)
 8. a) What is a transaction? Explain briefly the different phases of transaction. (8)
 - b) What are desirable properties of transaction? Explain. (8)
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PGIS-267 A-21
PGDCP & SA. I Semester Degree Examination
COMPUTER SCIENCE
Database Management System
Paper : SCT - 1.1
(New)

Time : 3 Hours

Maximum Marks : 80

Instructions to Candidates:

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

1. a) Explain the advantages of DBMS. (8)
b) What are the steps in database Design process? Explain. (8)
2. a) Explain the E-R model design issues. (8)
b) What is key constraints? Explain different kind of key constraints. (8)
3. a) Define the following : (8)
 - i. Entities
 - ii. Attributes
 - iii. Relationships
 - iv. Data Abstraction
b) Explain the concept of Relational Algebra with an example. (8)
4. a) What is lock management? Explain different types of locks. (8)
b) Explain transactions & schedules. (8)

5. a) Describe the phases in recovering from a system crash. (8)
b) Explain how check pointing is done in ARIES. (8)
 6. a) Draw and explain the architecture of DBMS. (8)
b) Write short notes on media recovery. (8)
 7. a) What is normalization? Discuss 1NF, 2NF and 3NF in detail. (8)
b) Write about ACID properties of a transaction. (8)
 8. a) How to recovery from a system crash? Explain. (8)
b) Write short notes on Deadlocks. (8)
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PGIS-260 A-21
PGDCA I Semester Degree Examination
COMPUTER SCIENCE
Programming Using C
Paper : HCT - 1.2

Time : 3 Hours

Maximum Marks : 80

- Instructions to Candidates:** 1. Answer any **Five** questions.
2. All questions carry **equal** marks.

1. a) What is flowchart? Explain symbols used in flowchart. (8)
b) Explain the structure of a C program. (8)
2. a) What are language translators? Explain any one. (8)
b) Explain formatted input functions with an example. (8)
3. a) What is data type? Explain basic data types. (8)
b) Write a C program to find smallest of three numbers. (8)
4. a) Explain switch statement with an example. (8)
b) Write a C program to find sum of the digits of a given number. (8)
5. a) Explain Arrays concepts in C. (8)
b) Write a C program to arrange the numbers in decending order. (8)
6. a) Explain any four string handling functions of C. (8)
b) What is Union? Explain declaration with example. (8)

7. a) Explain memory allocation methods. (8)
- b) Write a note on preprocessor directives. (8)
8. a) Explain file I/O operations. (8)
- b) Write a C program to print factorial of a given number using recursive function.(8)
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PGIS-265 A-21
PGDCA & SA. I Semester Degree Examination
COMPUTER SCIENCE
Programming Using 'C'
Paper : HCT - 1.2
(New)

Time : 3 Hours

Maximum Marks : 80

Instructions to Candidates:

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

1. a) What is flow - chart? Write the symbol used in flow chart with explain. (8)
b) Explain the classification of programming language. (8)
2. a) What is Translators? Write the difference between compiler and interpreter. (8)
b) Explain the Data types used in C - language. (8)
3. a) Write a Program showing the use of if () else and switch statement in C. (8)
b) Explain the use of break and continue statement in loops with examples. (8)
4. a) Write a C - program to reverse of an integer number and check whether it is palindrome or not? (8)
b) Explain storage classes. (8)
5. a) Explain any five string manipulation library functions with examples. (8)
b) Differentiate structure and array. (8)

6. a) Differentiate between while and do - while loop structure. (8)
b) Write a C-program to print the following output using nested loop.

```
      *
     * *
    * * *
   * * * *
  * * * * *
```

(8)

7. a) Write and explain any two preprocessor directives in C. (8)
b) What is pointer? Explain how the pointer variable declared and initialized. (8)
8. a) What is structure? Explain the syntax of structure declaration with example. (8)
b) What is file? Explain how the file open and file close functions handle.in.c? (8)

Roll No. _____

[Total No. of Pages : 2

PGIS-266 A-21
PGDCP & SA. I Semester Degree Examination
COMPUTER SCIENCE
System Analysis and Design
Paper : HCT - 1.3
(New)

Time : 3 Hours

Maximum Marks : 80

Instructions to Candidates:

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

1. a) Explain the structure of information management system. (8)
b) Describe the types of information. (8)
2. a) Explain different information Gathering methods. (8)
b) Write a note on quality of the information. (8)
3. a) How do we maintain the quality of information services? Explain. (8)
b) Describe feasibility analysis. (8)
4. a) What are the tools used by the system analyst? Explain. (8)
b) Explain system analyst role and tasks. (8)
5. a) What are the attributes of system analyst? Explain. (8)
b) Explain DFD with an example. (8)

6. a) What is Decision Tree? Explain with an example. (8)
b) Write a note on Data input and output methods. (8)
7. a) Why we need control audit? Explain. (8)
b) What is information security? Why we need it? Justify. (8)
8. a) Why we need information audit? Explain. (8)
b) Write a short note on testing of information system. (8)
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Roll No. _____

[Total No. of Pages : 2

PGIS-261 A-21
PGDCA. I Semester Degree Examination
COMPUTER SCIENCE
Libre Office
Paper : HCT - 1.3
(New)

Time : 3 Hours

Maximum Marks : 80

- Instructions to Candidates:**
1. Answer any **five** questions.
 2. All questions carry **equal** marks.

1. a) What is libreoffice writer? Explain. (8)
b) Write the steps to format the text. (8)
2. a) What is mail merge? Explain. (8)
b) What is table? Write the steps to insert 5 - rows and 6 - columns on a document. (8)
3. a) What is menu? Explain insert formate and tools. (8)
b) What are the applications of libreoffice. (8)
4. a) What is libreoffice calc? and also write the features of libreoffice calc. (8)
b) Write the steps for creating charts in libreoffice writer. (8)
5. a) What is templates? Explain. (8)
b) What is documents? Explain sharing document. (8)
6. a) What is slide master? Explain. (8)
b) Write the steps to add and formatting text. (8)

7. a) What is formatting? Explain formatting picture. (8)
- b) Write note on libreoffice impreses. (8)
8. a) Write short note on (8)
- i. Slides
 - ii. Save
 - iii. Hondout
 - iv. Open
- b) Explain E-mail. (8)
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