

MAR23-2-2342
B. C. A. Semester-IV (New Course) Examination
MARCH-2023
BCA-402 Building Application using PHP

Total Marks : 70

Time : 2¹/₂ Hours

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| Que. 1(a) | Answer the followings. | 06 Marks |
| | <ol style="list-style-type: none">1. Define : \$_FILES2. Write any two predefined variable handling functions with syntax and example.3. Explain the foreach Loop with syntax and example. | |
| Que. 1(b) | Answer the following (Any Two) | 12 Marks |
| | <ol style="list-style-type: none">1. Differentiate : GET vs Post. Explain \$_POST.2. Define : Array. Explain any five Array functions with syntax and example.3. Differentiate : Client side scripting languages and Server side scripting languages | |
| Que. 2(a) | Attempt the following | 05 Marks |
| | <ol style="list-style-type: none">1. Explain defining a class and object in php with example.2. How to read a file ? Explain it with file handling functions. | |
| Que. 2(b) | Answer the following (Any Two) | 12 Marks |
| | <ol style="list-style-type: none">1. Explain error handling try. Catch..block with example.2. Explain \$_cookie and \$_session with example.3. Explain php oop Inheritance with example. | |
| Que. 3(a) | Attempt the following | 06 Marks |
| | <ol style="list-style-type: none">1. Define : Web Service. Write full form of SOAP, UDDI, WSDL2. Explain sending an email in php.3. Which function counts return records in php from mysql ? Explain it with syntax and example. | |
| Que. 3(b) | Answer the following (Any Two) | 12 Marks |
| | <ol style="list-style-type: none">1. Explain Web Service Model.2. Explain searching and retrieving records from database ? Explain with example.3. Explain PHP mysql_query() and mysql_fetch_array() with example. | |
| Que. 4(a) | Attempt the following | 05 Marks |
| | <ol style="list-style-type: none">1. What is Joomla ? Explain advantages and Real World Examples of Joomla.2. What is Template manager ? Explain in brief. | |
| Que. 4(b) | Answer the following (Any Two) | 12 Marks |
| | <ol style="list-style-type: none">1. Explain Joomla Architecture.2. Write steps to create Menu in Joomla.3. How to create and add a new article ? Write steps. | |

MAR23-2-2337
B. C. A. Semester-IV (Old Course) Examination
MARCH-2023
BCA-402 GUI Programming Using VB

Total Marks : 70

Time : 2¹/₂ Hours

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| Que. 1(a) | Answer the followings. | 06 Marks |
| | <ol style="list-style-type: none">1. What is event driven programming ?2. What is Set Focus Method ?3. What is the use Zorder Method ?4. Define IDE5. What is method ? | |
| Que. 1(b) | Answer the following (Any Two) | 12 Marks |
| | <ol style="list-style-type: none">1. Explain File Server and Client Server database deployment.2. Explain Elements of IDE3. Explain InputBox with example. | |
| Que. 2(a) | Answer the following | 05 Marks |
| | <ol style="list-style-type: none">1. What is scope of variable ?2. To handle error condition you can use an _____.3. What is Option Explicit Statement ?4. Form level is also known as _____.5. What is Procedure ? | |
| Que. 2(b) | Answer the following (Any Two) | 12 Marks |
| | <ol style="list-style-type: none">1. Explain on Error Statement with proper example.2. Explain Maths Function with example.3. What is common control ? Explain List view with example. | |
| Que. 3(a) | Answer the following | 06 Marks |
| | <ol style="list-style-type: none">1. OLEDB stands for _____.2. What is WOSA ?3. What is class module ?4. List out Lock type property5. What is use of rs.addnew ?6. Seek method is available with table type record set. [True / False] | |
| Que. 3(b) | Answer the following (Any Two) | 12 Marks |
| | <ol style="list-style-type: none">1. Explain DAO in details.2. What is ActiveX control ? Explain step to creating ActiveX control.3. What is Record set ? Explain Types of Record set. | |
| Que. 4(a) | Answer the following | 05 Marks |
| | <ol style="list-style-type: none">1. Short Note : COM2. Difference between Data Report and Crystal Report | |
| Que. 4(b) | Answer the following (Any Two) | 12 Marks |
| | <ol style="list-style-type: none">1. Explain DCOM in details.2. Explain Service model in detail.3. What is Data report ? Write down step to create a data report. | |

MAR23-2-2343
B. C. A. Semester-IV (New Course) Examination
MARCH-2023
BCA-403 Electronic Commerce

Total Marks : 70

Time : 2¹/₂ Hours

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| Que. 1(a) | Answer the followings. | 06 Marks |
| | 1. Define : B2G, G2C | |
| | 2. Define : E-Commerce | |
| | 3. Differentiate : Traditional Commerce vs E-Commerce | |
| Que. 1(b) | Attempt the following (Any Two) | 12 Marks |
| | 1. Explain Future of E-Commerce. | |
| | 2. Explain Advantages and Disadvantages of E-Commerce in detail. | |
| | 3. Explain History and Development of E-Commerce in detail. | |
| Que. 2(a) | Answer the following | 05 Marks |
| | 1. Define : Micro Payment, SETP. | |
| | 2. Define : Firewall | |
| Que. 2(b) | Attempt the following (Any Two) | 12 Marks |
| | 1. Explain various Models of E-commerce in detail. | |
| | 2. Explain Driving Forces of E-Commerce in detail. | |
| | 3. Explain Electronic Data Inter-change in detail. | |
| Que. 3(a) | Answer the following | 06 Marks |
| | 1. Define : E-Cash | |
| | 2. Define : EFT | |
| | 3. Define : E-Wallet | |
| Que. 3(b) | Attempt the following (Any Two) | 12 Marks |
| | 1. Explain Credit Card and Debit Card in detail | |
| | 2. Explain Payment Gateway in detail. | |
| | 3. Explain different kinds of Cybercrime in detail. | |
| Que. 4(a) | Answer the following | 05 Marks |
| | 1. Define : LAN, WAN | |
| | 2. Define : Intranet and Extranet | |
| Que. 4(b) | Attempt the following (Any Two) | 12 Marks |
| | 1. Explain Virtual Private Network in detail | |
| | 2. What is M-Commerce ? Explain Advantage and Limitations of it. | |
| | 3. Explain Ethical issues in E-Commerce. | |

MAR23-2-2338
B. C. A. Semester-IV (Old Course) Examination
MARCH-2023
BCA-403 System Analysis and Design

Total Marks : 70

Time : 2¹/₂ Hours

Que. 1(a)	Answer the followings. 1. What is System ? 2. What is Prototype ? 3. What is Sub System ? 4. What is Interface ? 5. Define : Feedback 6. Define : System Analyst.	06 Marks
Que. 1(b)	Answer the following (Any Two) 1. Explain Analysis Phase of SDLC in detail. 2. Explain Types of system in detail. 3. Explain Role of System Analyst in detail.	12 Marks
Que. 2(a)	Answer the following 1. List out types of form. 2. Define : Validation	05 Marks
Que. 2(b)	Answer the following (Any Two) 1. Explain types of output in detail. 2. Explain the principles of code design in detail. 3. What is a Significant code ? Also explain all the types of significant code in detail.	12 Marks
Que. 3(a)	Answer the following 1. Define: Documentation 2. Define : Training 3. Define : Conversion	06 Marks
Que. 3(b)	Answer the following (Any Two) 1. Discuss all the components of CASE tools. 2. Explain HIPO chart with example 3. Explain Warnier-Orr diagram with example.	12 Marks
Que. 4	Draw and discuss the different levels of DFDS for “LIBRARY SYSTEM” in detail.	17 Marks

OR

Que. 4(a)	Answer the following 1. Define: Decision Table 2. Write down difference between logical DFD & Physical DFD	05 Marks
Que. 4(b)	Attempt the following (Any Two) 1. Explain Fact Finding Techniques in detail. 2. Explain Structured English in detail. 3. What is DFD ? Explain the rules for drawing the DFD.	12 Marks

MAR23-2-2344
B. C. A. Semester-IV (New Course) Examination
MARCH-2023
BCA-404 Data Mining & Data Warehousing

Total Marks : 70

Time : 2¹/₂ Hours

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| Que. 1(a) | Attempt the followings.
1. What is Data Warehouse ? List out its characteristics.
2. Define Data Mart.
3. List out three possible approach of Data Warehouse. | 06 Marks |
| Que. 1(b) | Attempt Any Two :
1. List and Explain all the characteristics of Data Warehouse.
2. Explain Basic Principal of Data Warehouse Modelling.
3. Write a short note on Temporal Modelling. | 12 Marks |
| Que. 2(a) | Attempt the following
1. Define : Data Cube
2. Full form of ROLAP _____
3. What is the use of OLAP ?
4. What is Metadata ?
5. What is Star Model ? | 05 Marks |
| Que. 2(b) | Attempt Any Two :
1. Give the difference between OLAP vs OLTP
2. Give the difference between ROLAP vs MOLAP
3. What is Metadata ? Explain Source of Metadata. | 12 Marks |
| Que. 3(a) | Attempt the following
1. Full form of KDD _____
2. List out Application of Data Mining.
3. Define the term : Classification | 06 Marks |
| Que. 3(b) | Attempt Any Two :
1. Explain KDD vs Data Mining
2. Write a short note on Automatic Cluster Detection
3. Give the difference between Discovery vs Verification Mode. | 12 Marks |
| Que. 4(a) | Attempt the following
1. List out Trends in Mining.
2. What is Web Structure Mining ?
3. Full form of MOLAP _____
4. Define Web Content Mining
5. What is Spatial Mining ? | 05 Marks |
| Que. 4(b) | Attempt Any Two :
1. Write a short note on Web Content mining.
2. Explain Data Generalization and Summarization in detail.
3. Explain web structure and usage mining in detail. | 12 Marks |

MAR23-2-2340
B. C. A. Semester-IV (Old Course) Examination
MARCH-2023
BCA-404 Computer Graphics

Total Marks : 70

Time : 2¹/₂ Hours

Que. 1(a)	Answer the followings. 1. What is Computer Graphics ? 2. Full form : GKS 3. What is Aspect Ratio ? 4. Full name of CRT 5. Define : Bitmap 6. What is Persistence ?	06 Marks
Que. 1(b)	Attempt Any Two : 1. Explain CRT. 2. Explain Software standard 3. Explain shadow mark method	12 Marks
Que. 2(a)	Answer the following 1. Define : Line in computer graphics 2. What is Antialiasing ? 3. What is Grayscale ? 4. Define : Cell Array 5. Define : Flood fill algorithm	05 Marks
Que. 2(b)	Attempt Any Two : 1. Explain DDA Algorithm 2. Explain Boundary fill algorithm 3. Explain Bresenham's algorithm	12 Marks
Que. 3(a)	Answer the following 1. What is transformation ? 2. What is Reflection ? 3. What is Scaling ?	06 Marks
Que. 3(b)	Attempt Any Two : 1. Explain the rotation transformation. 2. Explain shear in detail. 3. Explain Scaling transformation.	12 Marks
Que. 4(a)	Answer the following 1. What is text clipping ? 2. Define window and viewport.	05 Marks
Que. 4(b)	Attempt Any Two : 1. Explain Liang-Barsky line clipping algorithm. 2. Explain polygon clipping. 3. Explain text clipping.	12 Marks

MAR23-2-2339
B. C. A. Semester-IV (Old Course) Examination
MARCH-2023
BCA-404 Operating System

Total Marks : 70

Time : 2½ Hours

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| Que. 1(a) | Attempt any Three :
1. What is Operating System ? List out its Components.
2. List out functions of Operating System.
3. What is buffering ?
4. What is spooling ? | 06 Marks |
| Que. 1(b) | Attempt Any Two :
1. Explain functions of operating system in detail.
2. Write a short note Time sharing and real time operating system.
3. Explain Monolithic system structure of an operating system. | 12 Marks |
| Que. 2(a) | Attempt the following
1. Define the term PCB
2. What is Throughput ?
3. What is turn around time ?
4. Define the term. Process scheduler & CPU Scheduler.
5. What is deadlock ? | 05 Marks |
| Que. 2(b) | Attempt any Two
1. What is deadlock ? Explain necessary for deadlock.
2. Prepare a Gantt Chart and find out average waiting time using FCFS algorithm for the processes P1, P2 and P3. The CPU Burst Time is 24, 3, 3 respectively.
3. Explain Round robin algorithm with example. | 12 Marks |
| Que. 3(a) | Attempt the following
1. What is thread ?
2. What is deadlock ?
3. What is internal fragmentation ?
4. What is race condition ?
5. List out the necessary conditions for deadlock
6. List out the methods for handling deadlock. | 06 Marks |
| Que. 3(b) | Attempt Any Two
1. Write a short note on deadlock detection and recovery ?
2. Explain Deadlock prevention in detail.
3. Give the difference between Thread and Process. | 12 Marks |
| Que. 4(a) | Attempt the following
1. What is Memory management ?
2. What is paging ?
3. What is page frame ?
4. Full form of ATU _____.
5. What is race condition ? | 05 Marks |
| Que. 4(b) | Attempt Any Two
1. Explain multiprogramming with fix size partition in detail.
2. Write a short note on paging.
3. What is demand paging ? Explain in detail. | 12 Marks |

MAR23-2-2341
B. C. A. Semester-IV (New Course) Examination
MARCH-2023
BCA-401 Object Oriented Programming using C++

Total Marks : 70

Time : 2¹/₂ Hours

Que. 1(a)	Explain the following terms. 1. Class 2. Object 3. Encapsulation	06 Marks
Que. 1(b)	Answer the following (Any Two) 1. Explain Enumerated data type in detail with example. 2. What is reference variable ? Explain it with syntax and example. 3. Explain Memory management operator with example.	12 Marks
Que. 2(a)	Answer the following 1. Explain Inline Function. 2. Write short notes on Destructor.	05 Marks
Que. 2(b)	Answer the following (Any Two) 1. Explain Function overloading with example. 2. What is constructor ? Explain Parameterized constructor with example. 3. Explain static data member and static member function with example.	12 Marks
Que. 3(a)	Answer the following 1. What is operator overloading ? Give the Syntax 2. List the operators which are not overloaded. 3. Define : Unary Operator, Binary Operator	06 Marks
Que. 3(b)	Answer the following (Any Two) 1. Write a program for implementation of binary plus ('+') operator using member function. 2. Explain with example how unary operator can be overloaded using friend function. 3. Explain class to class type conversion with example.	12 Marks
Que. 4(a)	Answer the following 1. Explain this pointer. 2. List types of Inheritance.	05 Marks
Que. 4(b)	Answer the following (Any Two) 1. Explain virtual base class with example. 2. Explain Virtual function. Write a program for implementation of virtual function. 3. Explain Multiple inheritance with example.	12 Marks

MAR23-2-2336
B. C. A. Semester-IV (Old Course) Examination
MARCH-2023
BCA-401 Data Structure

Total Marks : 70

Time : 2¹/₂ Hours

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| Que. 1(a) | Answer the followings. | 06 Marks |
| | <ol style="list-style-type: none">1. Explain Data Structure2. Explain Primitive Data Structure3. List out string manipulation function. | |
| Que. 1(b) | Answer the following (Any Two) | 12 Marks |
| | <ol style="list-style-type: none">1. Explain Time and Space efficiency of an algorithm with example.2. Explain Non-Primitive data structure in detail.3. Explain any two string manipulation functions with syntax and example. | |
| Que. 2(a) | Answer the following | 05 Marks |
| | <ol style="list-style-type: none">1. Compare Stack and Queue2. Write short notes on Polish Notation | |
| Que. 2(b) | Answer the following (Any Two) | 12 Marks |
| | <ol style="list-style-type: none">1. Write an algorithm for stack operation.2. Write an algorithm to insert and remove an element from Queue.3. Write an algorithm convert infix expression into postfix expression. | |
| Que. 3(a) | Answer the following | 06 Marks |
| | <ol style="list-style-type: none">1. Define: Tree, Graph2. Define : Null Graph, Leaf Node3. Explain AVL Tree | |
| Que. 3(b) | Answer the following (Any Two) | 12 Marks |
| | <ol style="list-style-type: none">1. Explain Tree traversal algorithm with example.2. Explain DFS algorithm with example.3. Explain Threaded storage representation of Binary Tree. | |
| Que. 4(a) | Answer the following | 05 Marks |
| | <ol style="list-style-type: none">1. What is Collision ? List out Collision Resolution Techniques.2. What is searching ? Explain Sequential search technique. | |
| Que. 4(b) | Answer the following (Any Two) | 12 Marks |
| | <ol style="list-style-type: none">1. What is an algorithm to sort dat using Selection sort.2. Explain Binary Search Technique with example.3. Explain Bubble Sort Technique with example. | |
