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GK—28—2023

FACULTY OF SCIENCE AND TECHNOLOGY

BCA (Second Year) (Third Semester) EXAMINATION

APRIL/MAY, 2023

(CBCS/Revised Pattern)

COMPUTER APPLICATION

(Business Application and ERP)

(Thursday, 27-4-2023) **Time : 2.00 p.m. to 5.00 p.m.**

Time—Three Hours *Maximum Marks*—75

N.B. :— (*i*) *All* questions are compulsory.

(*ii*) Figures to the right indicate full marks.

(*iii*) Assume suitable data, if required.

(*iv*) Use of any electronic media such as mobile phone, digital diary and electronic calculator is not permitted.

1. Attempt any *five* of the following (**3** marks each) : 15

(*a*) Explain types of information.

(*b*) Discuss ERP.

(*c*) Discuss DSS in short.

P.T.O.

(*d*) What is Data Warehousing ?

(*e*) Explain business modeling.

(*f*) Discuss criteria for ERP selection.

(*g*) Advantages of EIS.

2. Attempt any *three* of the following (**5** marks each) : 15

(*a*) Explain ERP selection process.

(*b*) Explain Business process Re-engineering.

(*c*) Explain characteristics of information.

(*d*) Discuss ERP Implementation Life Cycle.

(*e*) Explain need of ERP system.

3. Attempt any *three* of the following (**5** marks each) : 15

(*a*) Explain On-Line Analytical Processing

(*b*) Explain product life cycle management.

(*c*) Explain ERP tools.

(*d*) Discuss about ERP Software.

(*e*) Explain components of an information system.

4. Attempt any *three* of the following (**5** marks each) : 15

(*a*) Discuss the concept management information system.

(*b*) Explain ERP implementation life cycle.

(*c*) Discuss about ERP Vendor Selection.

(*d*) Discuss Supply Chain Management.

(*e*) Explain various factors for the success of an ERP implementation.

5. Write short notes on any *three* of the following (**5** marks each) : 15

(*a*) ERP selection methods

(*b*) Reasons for the failure of ERP implementation

(*c*) Integrated Data Model

(*d*) ERP Security

(*e*) Types of information.

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GK—20—2023

FACULTY OF SCIENCE AND TECHNOLOGY

BCA (Third Semester) EXAMINATION

APRIL/MAY, 2023

(CBCS/Revised Pattern)

COMPUTER APPLICATION

(Database Management System)

(Tuesday, 25-4-2023) **Time : 2.00 p.m. to 5.00 p.m.**

Time—Three Hours *Maximum Marks*—75

N.B. :— (*i*) *All* questions are compulsory.

(*ii*) Figures to the right indicate full marks.

(*iii*) Assume suitable data, if required.

(*iv*) Use of any electronic media such as mobile phone, digital diary and electronic calculator is not permitted.

1. Attempt any *five* of the following (**3** marks each) : 15

(*a*) Explain characteristics of DBMS.

(*b*) Explain structure of DBMS.

(*c*) Explain concept of primary key.

P.T.O.

(*d*) Explain different types of attribute.

(*e*) Explain first normal form.

(*f*) Explain Cartesian product in brief.

(*g*) Explain types of indexes.

2. Attempt any *three* of the following (**5** marks each) : 15

(*a*) Explain advantages of DBMS.

(*b*) Explain file processing *Vs*. DBMS.

(*c*) Explain entity and entity set.

(*d*) Explain concept of foreign key.

(*e*) Explain entity relationship model.

3. Attempt any *three* of the following (**5** marks each) : 15

(*a*) Explain second normal form.

(*b*) Explain select, project and union with example.

(*c*) Explain dependencies in database.

(*d*) Explain concept of normalization.

(*e*) Explain any *five* Codd's rule.

4. Attempt any *three* of the following (**5** marks each) : 15

(*a*) Explain relation and relationship sets.

(*b*) Explain components of E-R diagram.

(*c*) Explain higher and lower level entity sets.

(*d*) Explain relational model.

(*e*) Explain integrity constraints over relation.

5. Write short notes of any *three* of the following (**5** marks each) : 15

(*a*) 3NF

(*b*) Logical database design

(*c*) DMBS language

(*d*) Types of file organization

(*e*) Types of data model.

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GK—29—2023

FACULTY OF SCIENCE AND TECHNOLOGY

BCA (Second Year) (Third Semester) EXAMINATION

APRIL/MAY, 2023

(CBCS/Revised Pattern)

COMPUTER APPLICATION

(Introduction to Multimedia)

(Thursday, 27-4-2023) **Time : 2.00 p.m. to 5.00 p.m.**

Time—Three Hours *Maximum Marks*—75

N.B. :— (*i*) *All* questions are compulsory.

(*ii*) Figures to the right indicate full marks.

(*iii*) Assume suitable data, if required.

(*iv*) Use of any electronic media such as mobile phone, digital diary and electronic calculator is not permitted.

1. Attempt any *five* of the following (**3** marks each) : 15

(*a*) Definition of Multimedia

(*b*) Compact Disk

(*c*) Image formats

P.T.O.

(*d*) Multimedia highway

(*e*) Basic concepts of sound

(*f*) JPEG

(*g*) Text elements in Multimedia.

2. Attempt any *three* of the following (**5** marks each) : 15

(*a*) Explain Multimedia elements in detail.

(*b*) Explain video disk and other WORMS.

(*c*) Explain Enhanced definition systems in Multimedia.

(*d*) Explain the BITMAPS images with an example.

(*e*) Explain compression technique MPEG.

3. Attempt any *three* of the following (**5** marks each) : 15

(*a*) Explain Run length and Huffman encoding.

(*b*) Explain MIDI in detail.

(*c*) Explain image file formats in detail.

(*d*) Explain broadcast video standards.

(*e*) Explain making still images.

4. Attempt any *three* of the following (**5** marks each) : 15

(*a*) Explain global structure of Multimedia.

(*b*) Explain basic technology of CD-ROM in detail.

(*c*) Explain computer based animation.

(*d*) Explain Audio file formats.

(*e*) Explain conventional systems in multimedia.

5. Write short notes on any *three* of the following (**5** marks each) : 15

(*a*) Explain digital audio in detail.

(*b*) Explain multimedia at a public place with *three* examples.

(*c*) Explain basic concept of video.

(*d*) Explain DVD-ROM.

(*e*) Explain optical storage media.

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GK—12—2023

FACULTY OF SCIENCE AND TECHNOLOGY

BCA (Second Year) (Third Semester) EXAMINATION

APRIL/MAY, 2023

(CBCS/Revised Pattern)

COMPUTER APPLICATION

Paper BCA-302

(Operating System Concepts)

(Friday, 21-4-2023) **Time : 2.00 p.m. to 5.00 p.m.**

Time—Three Hours *Maximum Marks*—75

N.B. :— (*i*) *All* questions are compulsory.

(*ii*) Figures to the right indicate full marks.

(*iii*) Assume suitable data, if required.

(*iv*) Use of any electronic media such as mobile phone, digital diary and electronic calculator is not permitted.

1. Attempt any *five* of the following (**3** marks each) : 15

(*a*) Discuss various functions of OS in short.

(*b*) Explain multiprogramming.

(*c*) Explain Priority scheduling.

P.T.O.

(*d*) Discuss I/O Device Handlers.

(*e*) Discuss Hierarchical view of operating system.

(*f*) Why do we need memory management ? Discuss.

2. Attempt any *three* of the following (**5** marks each) : 15

(*a*) Discuss Round Robin scheduling.

(*b*) Discuss the concept of Symbolic File System.

(*c*) What is context switching ? Explain in detail.

(*d*) Discuss an operating system as a resource manager.

(*e*) Write the difference between Paging and Segmentation.

3. Attempt any *three* of the following (**5** marks each) : 15

(*a*) What is CPU scheduling ? What is the need for CPU scheduling ?

(*b*) Explain Simple File System.

(*c*) Explain different non-contiguous memory management techniques along with their advantages and disadvantages.

(*d*) Discuss process view point of OS.

(*e*) Discuss I/O Traffic controller.

4. Attempt any *three* of the following (**5** marks each) : 15

(*a*) Explain Virtual devices.

(*b*) Explain SJF.

(*c*) What is device management ? Discuss various techniques for Device Management.

(*d*) Define OS. Discuss what does OS do ?

(*e*) Discuss the importance of Channels and Control Units.

5. Write short notes of any *three* of the following (**5** marks each) : 15

(*a*) I/O Scheduler

(*b*) Process synchronization

(*c*) FCFS

(*d*) Operating System Services

(*e*) User view of OS.

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GK—04—2023

FACULTY OF SCIENCE AND TECHNOLOGY

BCA (Second Year) (Third Semester) EXAMINATION

APRIL/MAY, 2023

(CBCS/Rev.)

COMPUTER APPLICATION

Paper BCA-301

(Programming in C++)

(Wednesday, 19-4-2023) **Time : 2.00 p.m. to 5.00 p.m.**

Time—Three Hours *Maximum Marks*—75

N.B. :— (*i*) *All* questions are compulsory.

(*ii*) Figures to the right indicate full marks.

(*iii*) Assume suitable data, if required.

1. Attempt any *five* of the following : 15

(*a*) Explain C++ tokens.

(*b*) Explain basic input/output statements in C++.

(*c*) Describe if-statement.

(*d*) Explain visibility modes.

(*e*) Describe operator overloading.

P.T.O.

(*f*) What is Polymorphism ? Explain.

(*g*) Explain file modes.

2. Attempt any *three* of the following : 15

(*a*) What is object-oriented programming ? Explain benefits of OOPs.

(*b*) Explain structure of C++ program.

(*c*) Explain data types used in C++.

(*d*) Write a program in C++ to print the number table of a given number.

(*e*) Explain while loop statement with example.

3. Attempt any *three* of the following : 15

(*a*) What is Function ? Explain call by value.

(*b*) Explain concept of static data members in C++.

(*c*) What is Constructor ? Explain with example.

(*d*) Explain unary operator overloading with example.

(*e*) What is Virtual base class ? Explain.

4. Attempt any *three* of the following : 15

(*a*) What is virtual function ? Explain.

(*b*) Write a C++ program to calculate the square and cube of an integer number.

(*c*) Explain inline function with example.

(*d*) Explain C++ stream classes.

(*e*) Describe if-else statement with example.

5. Write short notes of any *three* of the following : 15

(*a*) Scope resolution operator

(*b*) Do-while loop statement

(*c*) Arrays

(*d*) Friend function

(*e*) Pure virtual function.