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BCACAC 260

Credit Based Fourth Semester B.C.A. Degree Examination, April/May 2018
(Common to All Batches)
COMPUTER GRAPHICS AND MULTIMEDIA

Time : 3 Hours

Max. Marks : 80

Note : Answer any ten questions from Part – A and one full question from each Unit in Part – B.

PART – A

1. a) Define resolution. (10×2=20)
- b) What are horizontal and vertical retrace ?
- c) Write the 8-way symmetry of a circle.
- d) List any four line attributes.
- e) Write the matrices to represent translation and rotation in homogeneous coordinate system.
- f) What is clipping ? List its types.
- g) What is interactive media ?
- h) What is dithering ?
- i) What are palettes ? Mention any one common color palette.
- j) What is 3-D animation ?
- k) Mention any two analog broadcast video standards.
- l) List two drawbacks of CD-ROM technology.



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PART – B

UNIT – I

2. a) Explain the architecture of raster display system with a neat diagram.
b) Derive the mid-point algorithm to draw a circle.
c) Derive the Bresenham's line drawing algorithm. (4+5+6)
3. a) Explain the CRT monitor with neat diagram.
b) Write Mid-Point Ellipse algorithm.
c) Explain the Boundary fill algorithm. (5+6+4)

UNIT – II

4. a) Prove that successive scaling is multiplicative.
b) What is a Reflection ? Explain various types of reflection.
c) Write and explain Cohen Sutherland line clipping algorithm. (3+5+7)
5. a) Explain general fixed point scaling with suitable diagrams. Derive the composite matrix for the same.
b) Write a note on Pattern fill.
c) Explain the procedure of Sutherland Hodgeman polygon clipping along with suitable diagrams. (6+3+6)

UNIT – III

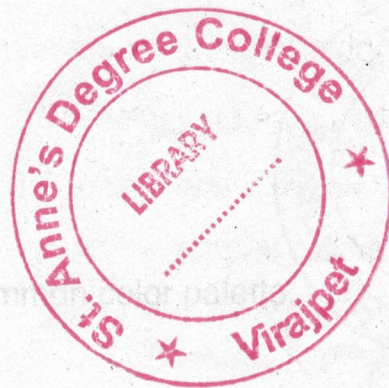
6. a) Explain the applications of multimedia in various fields.
b) Write a note on bitmaps.
c) Explain any five editing in digital recordings. (5+5+5)



- 7. a) What are the different methods for searching in hypermedia ?
- b) Write a note on vector drawing.
- c) Write a note on MIDI audio. (5+5+5)

UNIT – IV

- 8. a) Explain the principles of Animations.
 - b) Give some suggestions for creating good titles for video.
 - c) Write a note on image editing tools. (5+5+5)
- 9. a) Write a note on Cel Animation.
 - b) List and explain different steps of a multimedia project.
 - c) Explain various Video standards. (5+5+5)



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BCACAC 262

**Credit Based Fourth Semester B.C.A. Degree Examination, April/May 2018
(Common to all Batches)
PRINCIPLES OF TCP/IP**

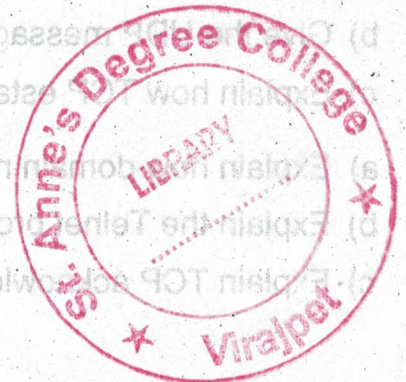
Time : 3 Hours

Max. Marks : 80

Note : Answer any ten questions from Part – A and one full question from each Unit of Part – B.

PART – A

1. a) Name any two organizations related to evolution of open networks. (10×2=20)
- b) What is RARP and when is it used ?
- c) What is default router ?
- d) What is loop back address ?
- e) What is Border Gateway Protocol ?
- f) List any two functions of IP.
- g) Give the structure of IP datagram.
- h) Compare telnet and rlogin protocols.
- i) Differentiate FTP and TFTP.
- j) What do you mean by IP multicasting ?
- k) Give the format of IPV6 datagram.
- l) What is the purpose of MIME protocol ?



PART – B

Unit – I

2. a) Write a note on evolution of open networks.
- b) Explain various classes of IP addressing scheme.
- c) Explain address resolution through dynamic binding with the help of a diagram. (5+5+5)

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BCACAC 263

Credit Based Fourth Semester B.C.A. Degree Examination, April/May 2018
(Common to all Batches)
E-COMMERCE

Time : 3 Hours

Max. Marks : 80

Note : Answer any ten questions from Part – A and any one full question from each Unit in Part – B.

PART – A

(10×2=20)

1. a) List any 4 benefits of E-Commerce.
- b) Which type of Merchandise is suitable for B2C model of E-Commerce transaction ?
- c) What is a Business Model ?
- d) Define EFT.
- e) What is a Shared Key ?
- f) What is W W W Server ?
- g) What is a DNS ?
- h) Define Packet Sniffer.
- i) What do you mean by Denial of Service ?
- j) Define Authentication is Security Services.
- k) What is PGP ?
- l) Mention any 4 Prepaid Electronic Payment Systems.

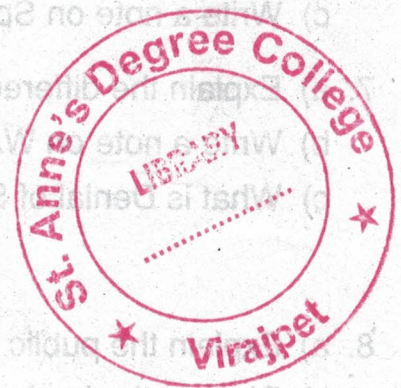
PART – B

Unit – I

2. a) Explain 5 phases in E-Commerce Market.
- b) Explain C2C E-commerce.
- c) Explain Applications of E-Commerce.

(5+5+5)

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3. a) Explain different categories of Native Transaction Models.
b) Discuss the impact of E-Commerce.
c) Write a short note on Electronic Trading. (6+5+4)

Unit – II

4. a) Explain layered architecture of EDI system.
b) What are the typical services of VAN ?
c) Write a short note on HTTP. (6+5+4)
5. a) How security and encryption practiced framework of E-Commerce ?
b) Write a note on FTP.
c) Explain the different benefits of EDI. (5+5+5)

Unit – III

6. a) Explain the different protocols used in Transport Layer.
b) Explain role of Resolver in DNS.
c) Write a note on Spoofing. (5+5+5)
7. a) Explain the different types of security problem or threats in E-Commerce.
b) Write a note on WAN.
c) What is Denial of Service ? Explain. (6+5+4)

Unit – IV

8. a) Explain the public key or symmetric key cryptosystem with a neat diagram.
b) Discuss the basic requirements of online system.
c) Explain the different applications of M-Commerce. (5+5+5)
9. a) Explain the major impediments faced by the Mobile Commerce Environment.
b) Explain PGP model used in email security with a neat diagram.
c) Explain the different types payment models used in M-Commerce. (6+5+4)

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BCACAC 261

**Credit Based Fourth Semester B.C.A. Degree Examination, April/May 2018
(Common to all Batches)**

VISUAL BASIC .NET PROGRAMMING

Time : 3 Hours

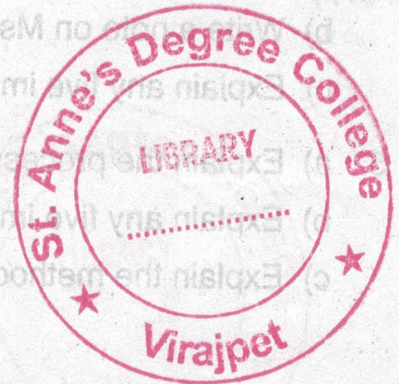
Max. Marks : 80

Note : Answer any ten questions from Part – A and one full question from each unit of Part – B.

PART – A

(10×2=20)

1. a) List any two System Namespaces.
- b) Write the use of the str and val function. Give example for each.
- c) How do you create a textbox in code ?
- d) Differentiate Textboxes and Labels.
- e) What is the use of Finally block ?
- f) Write any four keyboard events.
- g) List the different views of Listview.
- h) Write any four properties of ScrollBar.
- i) Differentiate Listbox and Combobox.
- j) What is the use of Data Grid ?
- k) What is the use of Server Explorer ?
- l) List any four data providers.



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PART – B

UNIT – I

2. a) Explain Do..Until loop with syntax and example.
b) Explain the following parts of VB IDE :
i) Properties Window
ii) Solution Explorer
iii) Toolbox.
c) Explain structured exception handling with syntax and example. (4+6+5)
3. a) Write the syntax of Select Case. Give example.
b) Explain different forms of option statements. Give example for each.
c) Explain Switch and Choose functions with syntax and example. (5+6+4)

UNIT – II

4. a) Explain any three important properties of :
i) Rich Textbox
ii) LinkLabel.
b) Write a note on MsgBox function.
c) Explain any five important properties of Button. (6+4+5)
5. a) Explain the process of creating MDI Application.
b) Explain any five important methods associated with Form.
c) Explain the method of copy or select text to/from the clipboard. (6+5+4)

UNIT – III

6. a) Explain five properties of DateTimePicker.
b) Explain how to determine the items that are checked in a CheckedList box.
c) Explain the use of the following :
i) ToolTip
ii) ProgressBar
iii) ImageList
iv) Timer
v) Notify Icon. (5+5+5)

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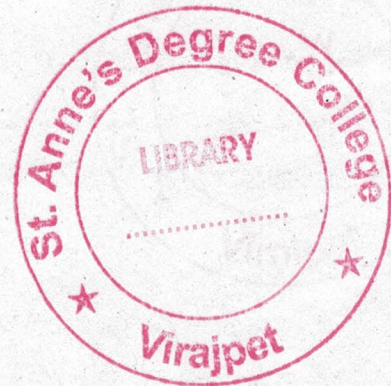


- 7. a) Explain any two properties and two methods of ListBox.
- b) Write a note on ScrollBar.
- c) Explain any two built-in Dialogboxes. (4+5+6)

UNIT – IV

- 8. a) Explain the process of navigating DataSets with suitable code example.
- b) Write a note on creating Command Object in code.
- c) Explain following objects of ADO.NET
 - i) Data Connection
 - ii) Data Adapter
 - iii) Data Reader. (5+4+6)

- 9. a) Write a note on creating Data Connection in code.
- b) What is Data Binding ? Explain different types of data binding in VB.NET.
- c) Explain following objects of ADO.NET
 - i) DataSet
 - ii) Data Table
 - iii) Command. (4+5+6)



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BCACAC 266

Credit Based Fourth Semester B.C.A. Degree Examination, April/May 2018
(Common to All Batches)
SYSTEM ANALYSIS AND DESIGN (Elective – I)

Time : 3 Hours

Max. Marks : 80

Note : Answer **any ten** questions from **Part – A** and **one full** question from **each** unit of **Part – B**.

PART – A

1. a) Define open system and closed system. (10×2=20)
- b) List any two roles of system analyst.
- c) List major plan documents.
- d) What is the difference between open and closed ended questions ?
- e) What are disruptive technologies ?
- f) Who is a Scribe ?
- g) List any four deliverables of logic modeling.
- h) What is meant by binary relationship ? Give an example.
 - i) Define conceptual data model.
 - j) Differentiate form and reports.
- k) What is an interface ? Give example.
 - l) What is integration testing and system testing ?

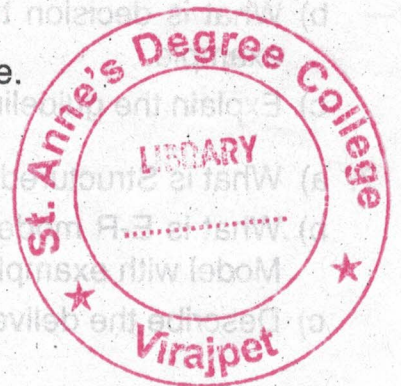
PART – B

UNIT – I

2. a) What is system analysis and design ? Explain preliminary investigation phase of SDLC.
- b) What is management information system ? Explain its features.
- c) Explain the following system concepts :
 - i) Decomposition
 - ii) Modularity.

(6+5+4)

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3. a) Who is a system analyst ? Explain the technical skills required for an ideal system analyst.
b) What is transaction processing system ? Explain its features.
c) Explain the following system concepts :
i) Coupling ii) Cohesion. (6+5+4)

UNIT – II

4. a) Explain any two traditional methods of collecting information system requirements.
b) Explain major interview guidelines.
c) List and explain the phases of planning game. (5+5+5)
5. a) Explain joint application design technique in information gathering.
b) List and explain different types of documents analysed for requirement determination.
c) Write a short note on :
i) Prototypes ii) CASE tools. (5+5+5)

UNIT – III

6. a) Explain the guidelines for drawing data flow diagrams.
b) What is decision tree ? Explain logic modeling using decision trees with example.
c) Explain the guidelines for displaying tables and lists. (5+5+5)
7. a) What is Structured English ? Explain logic modeling using Structured English.
b) What is E-R model ? Explain relationships of different degrees in an E-R Model with example.
c) Describe the deliverables and outcomes from process modeling. (5+5+5)

UNIT – IV

8. a) List and explain different methods of interacting with the system.
b) Explain different types of validation tests.
c) What is process design ? Illustrate grouping processes with example. (5+5+5)
9. a) What is programming ? What are the five steps in accomplishing it ?
b) State the guidelines for menu design.
c) Explain the significances of normalization concept in database design. (5+5+5)