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IV Semester B.C.A. Degree Examination, May/June 2014
(F + R) Y2K8 Scheme
(F-100-2012-13 & Onwards/R-90-Prior to 2012-13)
Computer Science
BCA 404 : DATA COMMUNICATION AND NETWORKS

Time : 3 Hours

Max. Marks : 90/100

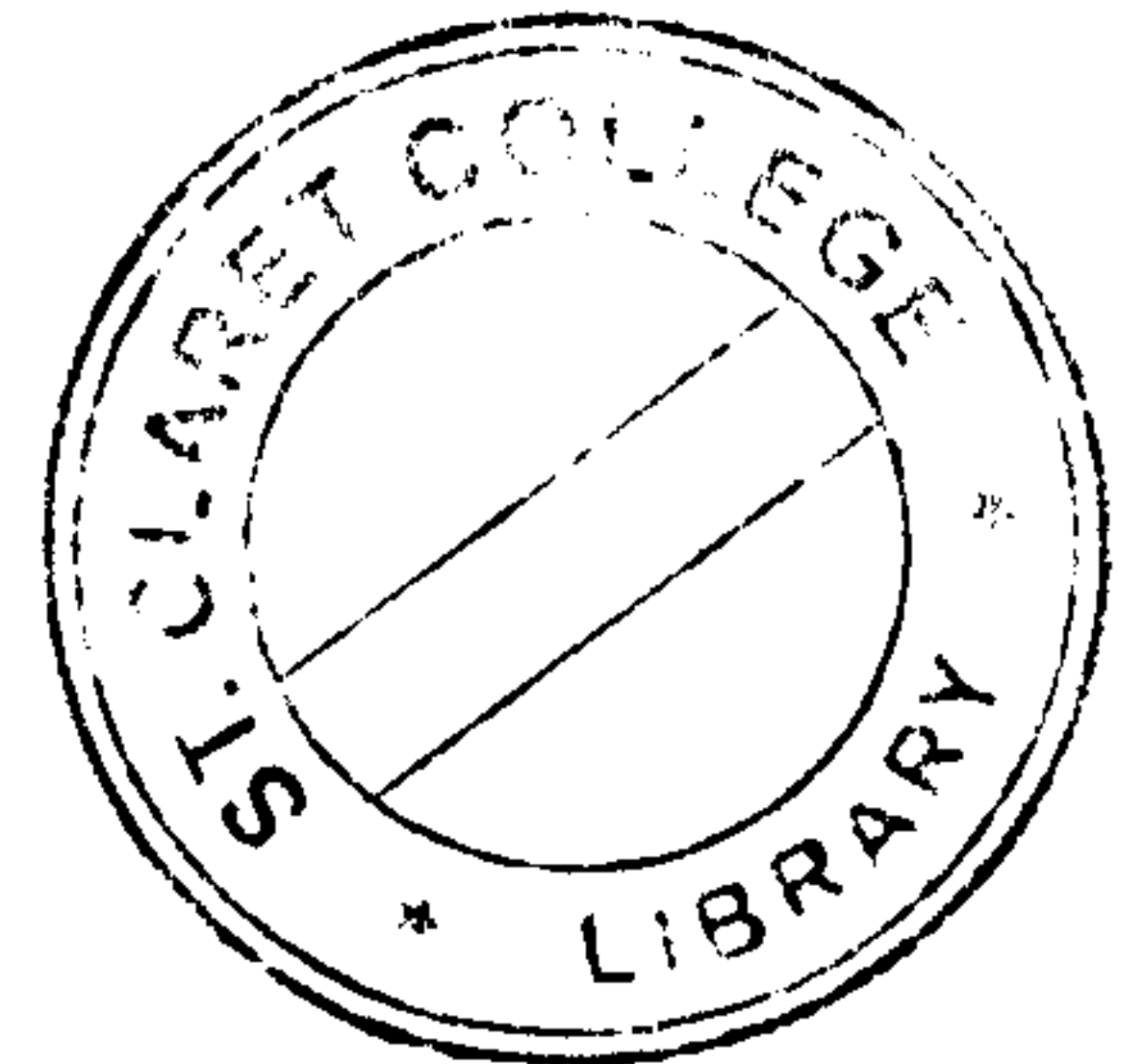
- Instructions :** 1) Section **A, B and C** is common to **all**.
2) Section '**D**' is applicable to **only** the students who have taken admission in **2012-2013** onwards.
3) **100** marks for fresh students of **2012-2013** onwards. **90** marks for repeater students prior to **2012-13**.

SECTION – A

Answer **any 10** questions. **Each** question carries **two** marks.

(10×2=20)

1. What is Network Topology ? List any two types of Topology.
2. What are the types of network ?
3. Expand SMTP and SNMP.
4. What are the two protocols in network access layer of TCP/IP ?
5. Define SNR.
6. What is digital to digital encoding ?
7. What is the difference between UTP and STP cables ?
8. What is pipelining ?
9. Differentiate between single hop and End-to-End.
10. What is polling ?
11. List the features of CSMA/CD.
12. What is bridge ? What are the types of bridge ?





SECTION – B

Answer **any five** questions. **Each** question carries **5** marks.

(5×5=25)

13. Explain packet switching technique.
14. Write a note on Ip configuration and net stat.
15. What is multiplexing ? What are the different types of multiplexing ?
16. Explain pulse code modulation.
17. What is bit stuffing and byte stuffing ? Give example.
18. Explain selective repeat ARQ.
19. Explain slotted ALOHA.
20. What is hub and repeater ?

SECTION – C

Answer **any 3** questions. **Each** question carries **15** marks.

(15×3=45)

21. a) Explain various transmission media.
b) Explain AM, FM and PM. (8+7)
22. Write notes on switches, space division switch and time division switch.
23. What are the different scheduling approaches ? Compare them.
24. Discuss MAC sub layer and logical link control sublayer.
25. a) What is the difference between datagram and virtual circuit ?
b) Congestion control algorithm. (9+6)

SECTION – D

Answer **any one** question. It is **applicable** for the students who have taken admission in **2012-13** onwards.

(10×1=10)

- 26) Explain TCP/IP model with a neat diagram.
 - 27) a) Leafy Bucket algorithm
b) Token Bucket algorithm. (5+5)
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MS – 536

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IV Semester B.C.A. Degree Examination, May/June 2014

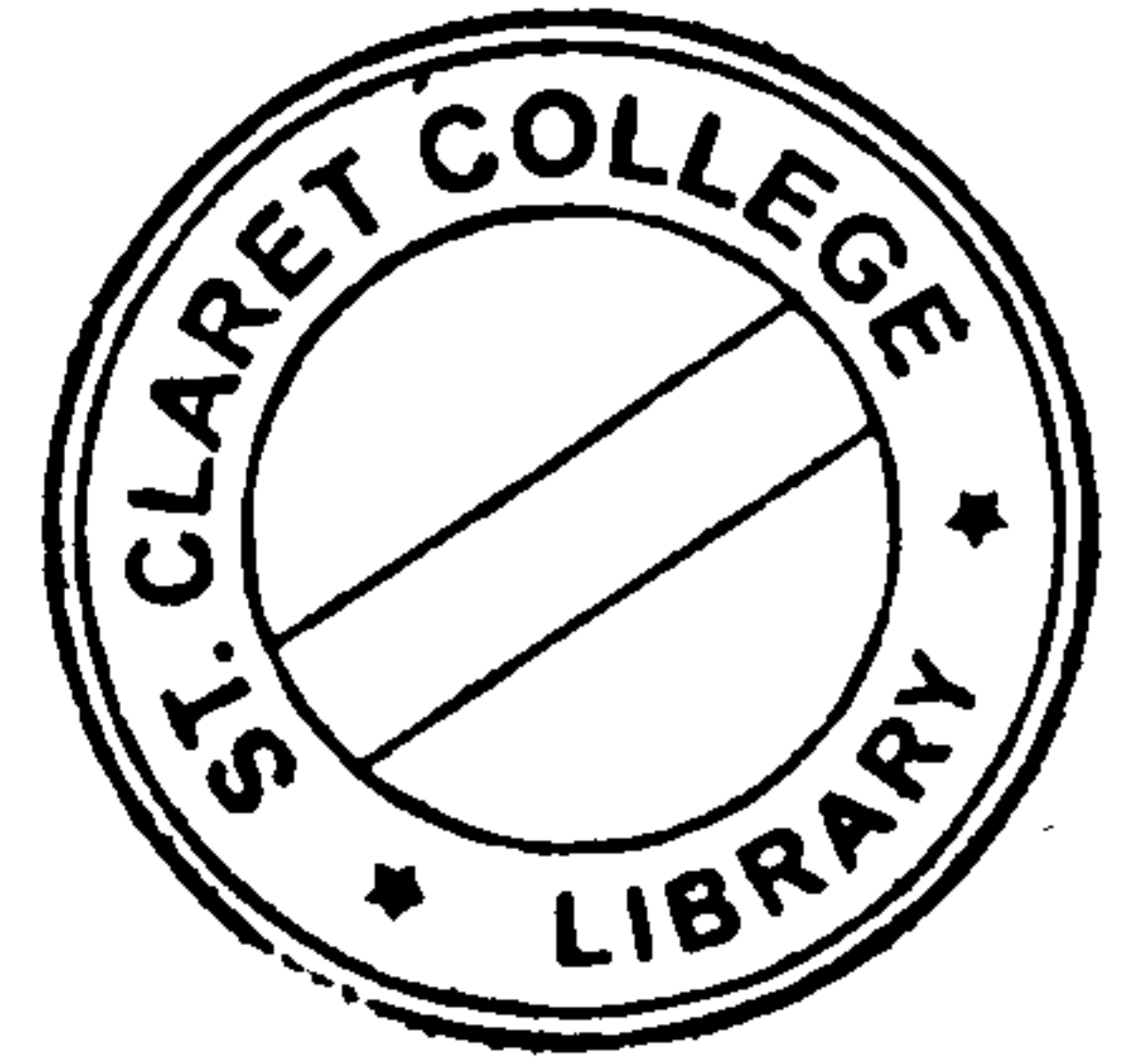
(Y2 K8 Scheme)

COMPUTER SCIENCE

(F + R – 70 – 2012-13 and Onwards)

(R – 60 – Prior to 2012-13)

BCA 405 : Visual Programming



Time : 3 Hours

Max. Marks : 60/70

Instructions: 1) Answer *all* Sections.

2) Section **D** is applicable to **2011, 2012 and Onwards**

SECTION – A

I. Answer **any 10**. Each question carries **1** mark.

(10×1=10)

- 1) What are the different categories of events in visual basic ?
- 2) Explain the use of form layout Window in visual basic.
- 3) What is 'DIM' statement in Visual basic ?
- 4) Define ADO in visual basic.
- 5) Explain the use of 'Val' function in visual basic.
- 6) What is "Large Change" and "Small Change" property in visual basic scrollbar ?
- 7) Explain "got focus" event in visual basic.
- 8) Define MFC.
- 9) Define resource.
- 10) Define OLE.
- 11) Define SDK.
- 12) What is device context ?

P.T.O.



SECTION – B

II. Answer **any 5** questions. **Each** question carries **3** marks. **(5×3=15)**

- 13) What is DLL ? Explain.
- 14) Explain variant data type with example.
- 15) Define explicit and implicit type of declaration in visual basic.
- 16) Explain the various date functions available in visual basic.
- 17) Define checkbox, option button and text box control in visual basic.
- 18) Explain message map in VC++.
- 19) Write the various components of VC++.
- 20) Explain features of MDI.

SECTION – C

III. Answer **any 5** questions. **Each** question carries **7** marks. **(5×7=35)**

- 21) Explain the different help formats available in Windows.
 - 22) Explain various Windows data types.
 - 23) a) Explain timer control in Visual Basic. **3**
b) Explain with syntax and example the various 'do' loops in Visual Basic. **4**
 - 24) a) What is control array in Visual Basic ? Explain. **3**
b) Explain msgbox () function with example in Visual Basic. **4**
 - 25) a) Explain 'select case' statement with example in visual basic. **4**
b) What is menu editor in visual basic ? Explain. **3**
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- 26) a) Explain serialization in VC++. 4
- b) Explain the different types of menus in VC++. 3
- 27) Explain splitter Window.
- 28) Write short notes on :
 - a) ODBC 3
 - b) Exception handling. 4

SECTION – D

IV. Answer **any one** question. **Each** question carries **10** marks. **(10×1=10)**

- 29) Write a visual basic database application to maintain employee information like empro, name, dept, designation, salary. User can add, save, delete, search and navigate records in the application. Make necessary assumptions. 10
 - 30) a) Write a VC++ program to create and load a simple menu in a Window. 5
 - b) Explain document/view architecture. 5
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