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BCACAC 157



Credit Based II Semester B.C.A. Degree Examination, Sept./Oct. 2020
(Semester Scheme)

(Common to all Batches) (Repeaters)

OBJECT ORIENTED PROGRAMMING USING C++

Time : 3 Hours

Max. Marks : 80

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

PART – A

(10×2=20)

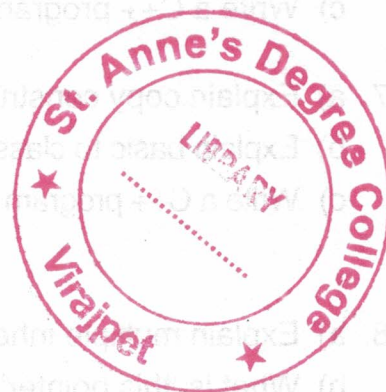
1. a) List any two application of object oriented programming.
- b) Define i) Encapsulation ii) Data hiding.
- c) What is the use of scope resolution operator in C++ ?
- d) Differentiate private and public member of a class.
- e) What are default arguments ? Give an example.
- f) What is function prototype ? Give an example.
- g) List any two features of static data members.
- h) List four operators which cannot be overloaded.
- i) What is a destructor ? Give an example.
- j) What is container class ? Give an example.
- k) What is abstract class in C++ ?
- l) What is meant by dynamic binding ?

PART – B

Unit – I

2. a) List and explain the features of object oriented programming.
- b) Explain the basic data types supported by C++.
- c) With proper syntax and example explain any two forms of if statements used in C++.

(5+5+5)





- 3. a) List different operators supported by C++ and explain any two types with suitable example.
- b) Explain any two loop control structure with syntax and example.
- c) Explain the structure of C++ program with code example. **(5+5+5)**

Unit – II

- 4. a) What is a class ? Using example explain how class can be defined.
- b) Explain the concept of array of objects with suitable example.
- c) What is a friend function ? Mention its advantages and disadvantages. **(5+5+5)**
- 5. a) Explain the concept of overloading a function in C++ with example.
- b) What are inline functions ? Explain with example how they are used in C++ ?
- c) With proper example explain how to pass and return object to/from a function. **(5+5+5)**

Unit – III

- 6. a) Explain with an example how do you overload a binary operator using member function ?
- b) With suitable example explain how parameterized constructor is defined in class.
- c) Write a C++ program to add two complex numbers using friend function. **(5+5+5)**
- 7. a) Explain copy constructor with an example.
- b) Explain basic to class type conversion with suitable example.
- c) Write a C++ program to compare two strings using operator overloading. **(5+5+5)**

Unit – IV

- 8. a) Explain multiple inheritance with example.
- b) What is 'this pointer' ? Explain its importance in C++ with an example.
- c) Explain how run time polymorphism is achieved using virtual function with an example. **(5+5+5)**
- 9. a) Explain single inheritance with an example.
- b) What are virtual functions and state how it is different from normal functions ?
- c) Explain how pointers to objects are used in C++ program. **(5+5+5)**

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Credit Based II Semester B.C.A. Degree Examination, Sept./Oct. 2020
(Credit Based Semester Scheme)
(Common to All Batches) (Repeaters)
BASICS OF NETWORKING

Time : 3 Hours

Max. Marks : 80

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

PART – A

1. a) Define Bandwidth and Attenuation. (10×2=20)
b) List any two lower layer protocols used in LAN.
c) What are the components of an IP address ?
d) Differentiate Class I and Class II repeaters.
e) Define anycasting. Give an example.
f) List different classes of ATM services.
g) Expand : (i) ISDN (ii) VSAT.
h) What is gateway ? List different types of gateways.
i) What is peer-to-peer connection ?
j) Mention any two features of Windows 2000 server.
k) What is a user account ? List different types of user accounts in Windows 2000.
l) What is Active Directory Services ?

PART – B

Unit – I

2. a) Explain different layers of OSI reference model with a diagram.
b) Write a note on twisted pair cables.
c) Explain Bus Topology with its advantages and disadvantages. (7+4+4)

P.T.O.



3. a) Explain single-mode and multi-mode transmission.
 b) Explain Star Topology with its advantages and disadvantages.
 c) Explain any two hardware components of networking. (6+4+5)

Unit – II

4. a) Explain POP and IMAP protocols.
 b) Explain different classes of IP address.
 c) Compare the features of IPv6 and IPv4. (6+5+4)
5. a) Explain the working of FDDI.
 b) Explain IPX/SPX addressing.
 c) Write the features of ARCNet. (6+5+4)



Unit – III

6. a) Explain the features and working of ISDN with a neat diagram.
 b) What is a router? Explain its working with a diagram.
 c) Explain PPP protocol. (6+5+4)
7. a) List and explain the differences between LAN and WAN technologies.
 b) Explain the working of transparent bridges with a diagram.
 c) Write a note on VSAT communication. (6+5+4)

Unit – IV

8. a) Explain the working of WINS with a diagram.
 b) Explain the steps involved in creation of domain user account.
 c) Explain the functions of operating system. (6+5+4)
9. a) Explain the working of DNS with a diagram.
 b) Explain the steps involved in creation of local user account.
 c) Differentiate Windows 2000 server and Novell Netware. (6+5+4)