

**2014**

**M B A**

**3rd Semester Examination**

**Subject : PROGRAMMING LANGUAGES AND COMPUTER  
NETWORKING PRINCIPLES**

**(Specialization : Operations and Systems Management)**

**PAPER—OS 304**

*Full Marks : 100*

*Time : 3 Hours*

*The figures in the right-hand margin indicate full marks.*

*Candidates are required to give their answers in their  
own words as far as practicable.*

*Illustrate the answers wherever necessary.*

*Write the answers to Questions of each Half in separate books.*

**( First Half )**

**(Marks : 50)**

**1. Answer any four questions :** 5×4

- (a) Write the characteristics of algorithm;
- (b) Differentiate between Procedural Language and Object Oriented Programming Language;

*(Turn Over)*

- (c) Write the advantages of Client-Server Database system;
- (d) Give a flowchart to find sum of three numbers;
- (e) What is SQL ? Why is it needed ?
- (f) What is the role played by a compiler and linker ?

2. Answer any *two* of the following : 10×2

(a) Write short notes on :

- (i) Polymorphism;
- (ii) Inheritance.

(b) Consider the following database student (rollno. name, subject, gender) write SQL query for the following :

- (i) Insert a data in the above table;
- (ii) Find the name of all the student;
- (iii) Find roll no. and subject of the students whose gender is female. 3+3+4

- (c) (i) What do you mean by Object ?
- (ii) What do you mean by Constructors and Destructors ?
- (iii) Explain Runtime Exceptions ?
- (iv) What is Encapsulation ? 2+4+2+2

**[ Internal Assessment : 10 ]**

**( Second Half )**

(Marks : 50)

**3. Answer any four of the following :** **5×4**

- (a) What are the advantages of ring topology over star topology ?
- (b) What are the responsibilities of applications layer in OSI model ?
- (c) What is a Ethernet ? Why it is being used ?
- (d) What is the utility of encryption in network security ?
- (e) What is ERP ?
- (f) What are the five basic requirements of a communication system ?

**4. Answer any two questions :** **10×2**

- (a) Differentiate between OSI and TCP/IP model.
- (b) (i) Discuss Electronic data interchange and its application in real world.  
  
(ii) What is the difference between internet and intranet ?

**6+4**

- (c) (i) What is data warehouse ?
- (ii) What are the five essential stages of data warehousing process ?

5+5

**[ Internal Assessment : 10 ]**

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