

BTS 166 (A)

B.TECH. DEGREE III SEMESTER (SUPPLEMENTARY)  
EXAMINATION IN INFORMATION TECHNOLOGY  
JUNE 2002

**IT 305 INTRODUCTION TO  
INFORMATION TECHNOLOGY**  
(1995 & 1998 Admissions)

Time: 3 Hours

Maximum Marks: 100

I. Describe the major problems in an organization that affect the design and operation of its information systems with an example. (20)

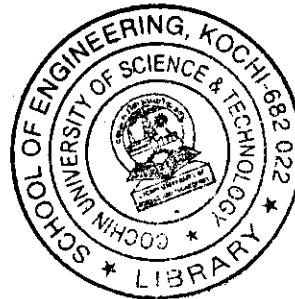
**OR**

II. Professor Ram is getting close to retirement and is interested in the future value of his individual retirement account (IRA). He has calculated value ( $V$ ) as

$$V = A \left[ \frac{(1+r)^n - 1}{r} \right], \text{ where } A = \text{the amount invested}$$

each year,  $r$  = the rate of interest,  $n$  = number of years until retirement.

- (i) Suppose  $A = \$2000$ ,  $r = 0.09$  and  $n = 20$  years. Develop a spreadsheet model to help him to determine the value of  $V$ .
- (ii) If  $r = 0.08$  in part 1, how much less will there be in retirement account.
- (iii) Suppose the parameters  $A$ ,  $r$  and  $n$  are increased separately by 10%, which parameter has the greatest effect upon  $V$ ? (20)



(Turn over)

- III. (a) Write short notes on the following:
- (i) EDI
  - (ii) MIME
  - (iii) Gopher
  - (iv) HTML (12)
- (b) Describe the different types of addresses used in internet. (8)

**OR**

- IV. What are the essential components of an Intranet? Describe what intranet achieves in an organization. (20)

- V. (a) In the IDENTIFICATION DIVISION certain paragraphs are optional and other parts of the division are mandatory. Describe the mandatory portion. (5)

- (b) What is the difference between a literal and figurative constant? How many different types of constants are there in COBOL? (10)

- (c) Assume the following DATA DIVISION entries:
- ```

01 BILL
02 A PK 99
02 FILLER PK X(7)

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Indicate the following statements in the PROCEDURE DIVISION are correct or not.

- (i) MOVE SPACE TO FILLER
- (ii) MOVE "AB" TO A.
- (iii) MOVE 23 TO A.
- (iv) MOVE SPACES TO A.
- (v) MOVE ZEROS TO A. (5)

**OR**

- VI. Describe the various Data movement and arithmetic verbs in COBOL. (20)

- VII. Write a COBOL program to update a master file by processing a transaction file. The master file has the record structure - Product-name, Product-code, Quantity-in-stock, Unit-price. The transaction file has the record structure: Productname, Productcode, Quantity, Price and transaction code. The following are the transaction codes:

'a' : to add the new record  
'b' : to delete the record  
'c' : change the unitprice  
'd' : Add to stock.

The transaction file may contain the multiple entries of the same product and they need not be in any order. (20)

**OR**

- VIII. A file contains a no. of records. Each record contain the following details: Rollno., studentname, semesterno., and Branch. Write a COBOL pgm. to create separate file one for each semester and each file should be sorted on the basis of roll number. (20)

- IX. Describe the components and benefits of a computerised accounting system. (20)

**OR**

- X. What are the various reports in an accounting system? Explain its uses. (20)

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