

## PGDCA / MCA (I Yr) / BCA

## Term-End Examination

June, 2007

CS-03 : FILE STRUCTURE AND  
PROGRAMMING IN COBOL

Time : 2 hours

Maximum Marks : 60

**Note :** Question number 1 is **compulsory**. Answer any **three** questions from the rest.

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1. (a) Write the data and procedure division of a COBOL program which takes input from a file containing temperature data in Fahrenheit and outputs the temperature in Celsius. 10

**Note :** The formula for conversion is

$$\text{Celsius} = \frac{5}{9} (\text{Degree Fahrenheit} - 32)$$

- (b) Find the errors, if any, in the following COBOL statements. Give reasons and also write the correct statements respectively. 10
- (i) 77 ITEM I PIC A(3) VALUE A12
  - (ii) .STOP RUNNING
  - (iii) GOTO PARA1 THRU PARA2
  - (iv) ACCEPT (3,5) SUM WITH PROMPT
  - (v) PRINT NAME 1

- (c) What is relative file organization ? Explain all the access modes used for it. Also discuss with an example the various procedure division entries for this organization. 10
2. (a) What is the role of a search statement in COBOL ? How does this statement operate on data ? Explain it with the help of an example. 5
- (b) Write the data and procedure divisions of a COBOL program for sorting an array of 10 elements using any of the sorting techniques. 5
3. (a) The payroll record of some XYZ Company has the following structure :

Emp Number : 4 digits

Emp Name : 25 characters

Emp Pay : 6 digits

Write a suitable data division of a COBOL program for this company. The company has decided to increase the pay of its employees as per the following norms :

Present pay	Increment
Pay < 3000	15% increase in pay
Pay ≥ 3000 and ≤ 8000	10% increase in pay
Pay > 8000	8% increase in pay

Also, write the procedure division to implement the given changes in the pay structure. 5

(b) What is the purpose of synchronised clause in COBOL ? What are the situations in which you would like to use this clause ? Explain briefly with an example. 5

4. (a) Write the data division and procedure division of a COBOL program which calculates the yearly depreciation as per the following formula :

$$\text{Yearly depreciation} = \frac{\text{cost of item} - \text{scrap value}}{\text{life}}$$

The input record to the program consists of the item number, cost of the item, scrap value and life in years. Also, it should print "ERROR" if depreciation value is less than or equal to zero. 5

(b) Two sorted transaction files are to be merged on a specific key. Write the various data division and procedure division entries which are required to do this operation. 5

**(Note :** You can assume any key as specific key)

5. Write the syntax format for each of the following COBOL statements/verbs/clasues with the help of an example : 10

(a) ACCEPT and DISPLAY

(b) CORRESPONDING option with MOVE and ADD verbs

(c) RELEASE and RETURN

(d) ON SIZE ERROR

(e) REDEFINE

