

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.

1. (a) The values of 4 variables A, B, C, D in COBOL program are 10

A PIC 99 VALUE 05.

B PIC 99V9 VALUE 22.5.

C PIC 99V9 VALUE 02.8.

D PIC 99 VALUE 25.

What will be the contents of A, B, C, D on execution of each of the following instructions ?

(i) DIVIDE A INTO B GIVING C REMAINDER D.

(ii) MULTIPLY A BY B ROUNDED.

(iii) ADD A,99 GIVING C ON SIZE ERROR MOVE O TO C.

(iv) SUBTRACT A,C FROM B.

(v) ADD A,B TO C GIVING D ROUNDED.

(b) Write the Data and Procedure divisions of a program in COBOL which chooses the largest among the five given numbers.
(**Note** : You can assume any five numbers) 10

(c) What is an indexed file in COBOL ? Explain the access modes in which records of an indexed file can be accessed. 10

2. (a) Find the errors, if any, in the following COBOL statements. Give reasons also. 4

(i) 88 TDAY PIC X(25) VALUE 'XYZ'

(ii) PERFORM PARA1 TEN TIMES

(iii) IF COUNTER < 15 GOTO PARA1

(iv) ADD AMT1 TO AMT2 GIVING TOTAL

(b) A transaction file has the following structure : 6

Amount number 8 alphanumeric characters
Transaction code 2 numeric digits

Write the data and procedure divisions in COBOL which sorts these entries on account number in two files. The first file contains the entries for which transaction code is less than or equal to 50. The second file contains the entries for which the transaction code is more than 50, but at the time of writing into the file, it has to be converted to zero.

3. (a) XYZ company has 5 warehouses for keeping its stock. Each of these warehouses stores 20 products and any of these products can be supplied by 5 suppliers. Write the data division entry for this multidimensional table.

Write the *procedure division entries* for finding the number of products in the Warehouse-3 that have been supplied by "ABC Company".

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- (b) Can you write recursive programs in COBOL ? Give reasons. What are the COBOL verbs used for implementing the *iteration* ?

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4. (a) How can you implement a multidimensional array in COBOL ? Explain with the help of an example.

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- (b) Write a COBOL program to calculate the compound interest from the disk records of the following structure :

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Account No.	5 characters
Depositor's Name	25 characters
Amount	5 digits
Rate of interest	2 digits
Investment period	2 digits

Note : The formula to be used is

$$\text{Compounded Amt} = \text{Amount} (1 + (\text{Rate of interest})/100)^{\text{Investment period}}$$

5. Explain the use and write the syntax of each of the following COBOL statements/verbs/clauses with the help of an example :

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- (a) USAGE clause
- (b) ALTER
- (c) EXT
- (d) COMPUTE
- (e) OCCURS clause