Faculty of Engineering & Technology

Fourth Semester B.E. (Compt. Tech.) C.B.S.

Examination

INTRODUCTION TO MAINFRAME LANGUAGE

Paper—V

Time : Three Hours]   [Maximum Marks : 80

INSTRUCTIONS TO CANDIDATES

(1) All questions carry marks as indicated.

(2) Solve Question No. **1 OR** Question No. **2**.

(3) Solve Question No. **3 OR** Question No. **4**.

(4) Solve Question No. **5 OR** Question No. **6**.

(5) Solve Question No. **7 OR** Question No. **8**.

(6) Solve Question No. **9 OR** Question No. **10**.

(7) Solve Question No. **11 OR** Question No. **12**.

(8) Due credit will be given to neatness and adequate dimensions.

1. (a) With the help of neat sketch, explain in detail the working principle of mini computer. Also explain its key features and benefits.   7

(b) Give classification of computers. Compare all the given below computer systems on their key features :

    (1) Micro computer

    (2) Mainframe computer

    (3) Supercomputer.   7

OR

2. (a) What is an operating system ? Give some example of operating system used for mainframe computer system.   6

   (b) Explain the following :

      (i) Sequential dataset

      (ii) Partial dataset

      (iii) Paging

      (iv) Storage manager.   8

3. (a) Write short notes on the following :

      (i) Virtual Storage

      (ii) Multiple Virtual System (MVS)

      (iii) Virtual Storage Access Method.   6

   (b) Explain in detail Z-operating system (Z/OS). 7

OR

4. (a) Explain in detail different Access methods and Record formats used in Direct Access Storage Devices (DASD). 7

    (b) Explain paging process in Z/OS. 6

5. (a) Explain the Job control language. 7

    (b) Explain in detail structure of JCL statements.

    6

OR

6. Write detailed notes on the following :

    (i) JOB Statement 3

    (ii) EXEC Statement 3

    (iii) DD Statement 3

    (iv) JCL procedures. 4

7. (a) What are figurative constants ? Give examples. Also explain different types of literals. 7

    (b) Explain the importance of column number 7 in the COBOL coding sheet. 4

    (c) What are the different rules for forming user defined word in COBOL ? 2

OR

8. (a) Explain the importance of following level no. Give suitable example for each :

    (i) 77

    (ii) 66

    (iii) 88.   6

(b) Write short notes on the following :

    (i) USAGE clause

    (ii) PIC and VALUE clause.   7

9. (a) Write the FILE-CONTROL paragraph entries required for the following types of file organization :

    (i) Sequential file

    (ii) Indexed sequential file

    (iii) Relative file.   6

(b) Discuss and explain the syntax and format of SORT and MERGE. Give example for each. (Example should include the use of input and output procedure, whichever is relevant to SORT and MERGE.)   8

OR

10. Write a COBOL program to create a sequential file from the standard console. The data acquired from user must be present in the file in the following record structure :

Name_of_student	X (15)
Roll_No	X(5)
DPFS_Marks	9(3)
DPPL_Marks	9(3)
DAA_Marks	9(3)
SE_Marks	9(3)
IME_Marks	9(3)

Now create the output file from the above mentioned input sequential file. The record structure of the output sequential file is as following :

Roll_No.	Name of Student	Subject	Marks
A001	ABCD	DPPL	29
		DPFS	30
		DAA	49
		Total	108
A002	XYZ	IME	40
		SE	40
		DPFS	40
		Total	120

Assume suitable data wherever required.   14

MVM—44978   4   (Contd.)

MVM—44978   5   (Contd.)

11. (a) What are the different COBOL coding standard ? Explain in detail. 7

    (b) Explain the relationship between COBOL file handling program and JCL. 6

<div align="center">OR</div>

12. Write short notes on following :

   (i) DBRM 4

   (ii) ABEND Codes 3

   (iii) EDIT-JCL 3

   (iv) COBOL-DB2 Program Pre-compilation. 3