

3/6/16

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**Question Paper Code : 27297**

**5 Year M.Sc. DEGREE EXAMINATION, MAY/JUNE 2016**

**Second Semester**

**Software Engineering**

**ESE 024 – COBOL AND DATA PROCESSING**

**(Common to 5 Year M.Sc. Software Systems)**

**(Regulations 2010)**

**Time : Three Hours**

**Maximum : 100 Marks**

**Answer ALL questions.**

**PART – A (10 × 2 = 20 Marks)**

1. Define the structure of a COBOL program.
2. How will you find the size of data items in a COBOL program ?
3. Write COBOL statements for the following :
  - (a) Subtract INCOME-TAX, PROVIDENT-FUND, CDS from the value of GROSS-PAY to get the NET-PAY.
  - (b) Calculate COMMISSION which is 5% of TOTAL-SALE.
4. What is the purpose of ALTER statement? Write its syntax and give an example.
5. State the use of sequential file.
6. Mention any three use of file processing.
7. Define Structured programming.

8. What are the parameters to be considered to design a good program ?
9. Mention the methods of screen handling in COBOL programming.
10. What is meant by screen handling ?

**PART – B (5 × 16 = 80 Marks)**

11. (a) (i) Explain the various USAGE CLAUSES in COBOL with examples. (10)
- (ii) Brief about synchronized clause. (6)

**OR**

- (b) (i) Differentiate REDEFINES CLAUSE and RENAMES CLAUSE. (8)
- (ii) Explain the format of String, Unstring and Inspect statement with examples. (8)

12. (a) (i) Explain the different forms of PERFORM statement with suitable example. (8)
- (ii) Explain how subroutines defined and used in COBOL with an example. (8)

**OR**

- (b) (i) Explain the usage of OCCURS clause with a sample COBOL program. (8)
- (ii) What is SEARCH statement ? Explain with suitable example how it can be used to search an element in a two-dimensional table. (8)

13. (a) A hospital needs to automate medical prescriptions of the patients coming for treatment. Consider the following fields that are provided to store records in the prescription file. Record Structure: Prescription number, Patient's age, Patient's sex, Drug code, Quantity prescribed, unit of measure. Create a sequential file with records of 'n' number of patients and sort the file based on Drug code.

**OR**

- (b) How are indexed sequential files created in COBOL? Explain it with all its associated keywords with a suitable example for each.

14. (a) (i) Enumerate the role of flow charts and modular programming in the design of COBOL programs.
- (ii) Write a short note on coding style, efficiency and testing of COBOL programs.

**OR**

- (b) (i) State and explain the benefits of designing good programs using modular programming.
- (ii) Discuss in detail about the data processing cycle and data organization.
15. (a) Explain in detail about sorting and searching with one suitable example for each.

**OR**

- (b) Discuss elaborately on Master and Transaction Files.
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