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Reg. No.								

Question Paper Code: 45269

5 Year M.Sc. DEGREE EXAMINATION, NOVEMBER/DECEMBER 2014

Second Semester

Software Engineering

ESE 024 – COBOL AND DATA PROCESSING

(Regulation 2010)

Time: Three hours

Maximum: 100 marks

Answer ALL questions.

$$PART A - (10 \times 2 = 20 \text{ marks})$$

- 1. What are figurative constant? Name any four figurative constant.
- 2. What are uses of RENAME clause?
- 3. What is the purpose of linkage section in COBOL?
- 4. Mention any four features of COBOL 85.
- 5. What the advantages and disadvantages of relative file organization?
- 6. Give the syntax for file-control entries for sequential file.
- 7. What the advantages of modular programming?
- 8. Narrate the importance of data organization.
- 9. What are transaction and master files?
- 10. What is an inventory system?

PART B —
$$(5 \times 16 = 80 \text{ marks})$$

- 11. (a) (i) Discuss about the significance of the level number 66,77 and 88. (8)
 - (ii) Explain the various picture clause in detail.

(8)

•	(b)	(i)	Explain the various statements for string manipulation in COBOL. (6)	
		(ii)	Give the syntax for various arithmetic verbs in COBOL and explain.	
12. (a)	(a)	(i)	Write a COBOL subroutine to find the factorial of a number. Using this subroutine Compute Nc_R . (8)	
		(ii)	Explain the various branching statements in COBOL each with example. (8)	
			\mathbf{Or}	
	(b)	(i)	Explain the types of perform statement in COBOL each with suitable example. (12)	
		(ii)	Give the syntax for ALTER statement and explain. (4)	.•
13.	(a)	(i)	Give the syntax for MERGE and SORT verb and explain. (8)	
		(ii)	Explain various statements for handling indexed-sequential file in COBOL. (8)	
			\mathbf{Or}	•
	(b)	(i)	Give the syntax for OPEN, CLOSE, READ and WRITE statement for relative file organizational and explain. (8)	
		(ii)	Write a COBOL program to create and indexed sequential file to store information about book details such as title, access number, publisher name, year of publication. (8)	
14.	(a)	(i)	Describe the data processing life cycle in detail. (8)	
		(ii)	Discuss about virus file organization with their relative advantages and disadvantages. (8)	
-			\mathbf{Or}	
-	(b)	(i)	Discuss about various activities involved in design a good program. (8)	
	•	(ii)	Discuss about the coding style to be followed for writing structured programs. (8)	

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15. (a) Write a COBOL program to prepare pay slip for employees working in an organization. There are three categories of employees and they have different pay structure as detailed below:

Category	Basic pay	$\mathbf{D}\mathbf{A}$	HRA	Overtime Allowance
\mathbf{A}	Rs.25,000	50% on basic pay	20% on basic pay	Rs.200 per/hour
В	Rs.15,000	40% on basic pay	10% on basic pay	Rs.100 per/hour
\mathbf{C}	Rs.10,000	25% on basic pay	Rs.400 basic pay	Rs.200 per/hour

The organization is detecting 10% of the total salary for employee family welfare fund.

Or

(b) The details about the name of the city, city code and its male and female population are stored in the master file "PAPULATION.DAT". The daily birth and death details in each city along with city code are recorded in the transaction file "TRANS.DAT". The mater file is periodically updated using the transaction file. Write COBOL program for the above.