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Council for Technical Education and Vocational Training

Office of the Controller of Examinations

Sanothimi, Bhaktapur

Regular/Back Exam-2078/2079, Chaitra/Baishakh

Program: Diploma in Computer Engineering

Full Marks: 80

Year/ Part: II/II (2018 New)

Pass Marks: 32

Subject: System Analysis & Design

Time: 3 hrs.

Candidates are required to give their answers in their own words as far as practicable. The figures in the margin indicate full marks.

Attempt Any Eight Questions.

1. Define a system. Explain the different phase of SDLC and their uses. [10]
2. What is information system? Explain various types of information system. [4+6]
3. Why good inter-personal Communication is required for a system analyst? Explain different methods of collecting information. [3+7]
4. a) Design a DFD for library management system. [5]
b) Discuss the process of designing forms and reports in detail. [5]
5. a) What are the benefits of using Normalization? Discuss 1NF and 2NF with example. [6]
b) What is decision table? Differentiate it with decision tree with example. [4]
6. a) What is ER Diagram? Explain with diagram. [5]
b) Define data dictionary and explain process of transforming ER diagram into relations. [2+3]
7. Why do you need high quality software? Discuss different software quality assurance activities. [10]
8. Create a decision tree to represent the logic of payroll system described in the following narrative. There are two types of employees: salaried and hourly. All salaried employees get basic salary. Hourly wage is calculated for hourly worker. For hourly worker, if hours worked is less than 40 absences report is also produced and if it is greater than 40 overtime is also calculated. [10]
9. Write short notes on : **(Any Two)** [2x5=10]
i) Software measurement process ii) Spiral model
iii) Class and object diagram

Good Luck !

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