

**Tribhuvan University
Institute of Science and Technology**

2070

Bachelor Level/ First Year/ First Semester/ Science
Computer Science and Information Technology (CSc. 252)
(System Analysis And Design)

Full Marks: 60
Pass Marks: 24

Candidates are required to give their answers in their own words as far as practicable.

The figures in the margin indicate full marks.

Group A

Long Answer Questions:

Attempt any two: (2x10=20)

- 1.) Mention the key steps of system development life cycle and explain each step with example.
- 2.) What are the key steps for designing E-R diagram? Explain with example.
- 3.) Develop a decision tree and a decision table for the following :

The gatekeeper at ABC park is given the following instructions for admitting persons to the park:

- If the person is under three years of age, there is no admission fee.
- If a person is under 16, half the full admission is charged and this admission is reduced to a quarter of full admission if the person is accompanied by an adult (the reduction applies only if the person is under 12).
- Between 16 and 18, half the full admission fee is charged if the person is a student; otherwise the full admission is charged.
- Over 18, the full admission fee is charged.
- A discount of 10 percent is allowed for a person over 16 if they are in a group of 10 or more.
- There are no students concessions during weekends. On weekdays under -12s get one free ride.

Group B

Short Answer Questions:

Attempt any eight: (8x5=40)

- 4.) What are the types of information system?
- 5.) Differentiate between physical DFD and logical DFD.
- 6.) What do you mean by database normalization? Why is it important?
- 7.) Why feasibility analysis is necessary before designing a system?
- 8.) Explain modeling tools.
- 9.) Explain with example of tangible and intangible benefit.
- 10.) What do you mean by Quality assurance? Explain with example.
- 11.) Comparison between corrective, adaptive, perfective and preventive maintenance.
- 12.) Differentiate between object modeling and dynamic modeling.
- 13.) What are the main deliverable from testing and installation