NKT/KS/17/5291

Bachelor of Science (B.Sc.I.T.) Semester—I (C.B.S.) Examination

SYSTEM ANALYSIS AND DESIGN

Paper—III

Time : Three Hours] [Maximum Marks : 50

N.B. :— (i) **All** questions are compulsory and carry equal marks.

(ii) Draw neat and labelled diagram wherever necessary.

EITHER

1. (a) Write two most important duties of a system analyst. Describe desirable qualities of a system analyst with regards to :

(i) Personality

(ii) Academic background

(iii) Technical competence. 5

(b) Write benefits and limitations of prototyping. 5

OR

(c) What is feasibility study ? Discuss following four phases to a feasibility study :

(i) Organizing for the study

(ii) Search for solutions

(iii) Feasibility analysis

(iv) Choice of a solution. 5

(d) What are some of the issues, problems and limitations in the use of interviews ? 5

EITHER

2. (a) Why are data flow diagrams so popular ? What are their advantages over other analysis techniques ? 5

(b) Write principles of good output design. 5

OR

(c) What human factors should be considered during input design to make system more effective ? 5

(d) What is the role of forms in a computerized information system ? Should forms be tested before they are implemented ? How ? By whom ? When ? 5

EITHER

3. (a) Discuss strength and weaknesses of the following conversion methods :

   (i) Cold turkey

   (ii) Pilot

   (iii) Modular

   (iv) Parallel

   (v) Sequential. 5

   (b) List testing tools and discuss any two in brief. 5

   OR

   (c) Discuss training methods to provide operational training and related activities. 5

   (d) Write a short note on system evaluation. 5

   EITHER

4. (a) Discuss any two reliability growth models in brief. 5

   (b) Write short notes on :

   (i) Risk Assessment

   (ii) Risk Containment. 5

   OR

   (c) Write short note on function point metric. Why function point metric got popularity over LOC metric to estimate project size ? 5

   (d) Discuss process models for software maintenance and explain how an appropriate maintenance model would be selected for maintenance project at hand. 5

5. Attempt **all** :

   (a) Draw basic components of a computer system. What role do each of the components play ? Explain. 2½

   (b) Explain system tolerance in brief. 2½

   (c) Explain conversion period length. 2½

   (d) Why the reverse of software components except mathematical software is difficult ? Explain. 2½