NKT/KS/17/5314

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

SOFTWARE ENGINEERING

Paper—I

Time : Three Hours] [Maximum Marks : 50

N.B. :— (1) **All** questions are compulsory and carry equal marks.

(2) Draw neat and labelled diagram wherever necessary.

EITHER

1. (a) Why is it said that software is engineered and not manufactured in the classical sense ? 5

(b) The industry is moving towards component based construction, but most software continues to be custom built. Why ? 5

OR

(c) List the five generic process framework activation and explain it in brief. 5

(d) Discuss different levels of Capability Maturity Model Integration (CMMI). 5

EITHER

2. (a) Discuss following :

(i) User Requirement

(ii) System Requirement. 5

(b) Explain any one example of software project in which prototyping model is used for its development. 5

OR

(c) What functions and features are considered in Aspect Oriented Software Development (AOSD) ? Explain. 5

(d) What modeling activities are considered in concurrent process model ? 5

EITHER

3. (a) What does feasibility analysis imply when it is discussed within the context of the inception functions ? 5

(b) Draw a context level model (level O DFD) for home safety security function. Write a context level processing narratives for the system. 5

OR

(c) Describe the difference between an association and dependency for an analysis class. 5

(d) When a system is large and complex, how requirement is managed ? Explain. 5

EITHER

4. (a) What are the concepts used in design engineering of software ? Explain. 5

(b) Explain the following concepts with respect to software design engineering :

(i) Reliability

(ii) Portability. 5

OR

(c) How do you access quality of a software design ? 5

(d) What are the characteristics of a good design ? Discuss. 5

5. Attempt **all** :

(a) What steps are needed in developing a project plan ? 2½

(b) Give importance of prototyping model. 2½

(c) What do you mean by control specification ? 2½

(d) Explain refinement in brief. 2½