



This paper contains 4 questions in 2 pages.
Time Allowed: Two (2) Hours.

Each question carries 25 marks.
Answer ALL questions.

Question 1

- (a) Describe the waterfall model of software development and discuss its strengths and weaknesses.
- (b) For which of the following projects would waterfall model be suitable, and why?
- an incremental compiler for Java
 - a clinical-record-keeping system for dentists
 - a word-processing package
- (c)
- State the advantages and disadvantages of the evolutionary model of software development.
 - Is it more, or less, suitable than the waterfall model for safety-critical projects? Justify your answer.
- (d) Compare and contrast Exploratory development with Throw-away prototyping.
- (e) Discuss potential and known risks associated with the use of COTS (Commercial-off-the-shelf).
- (f) How can the selection of an inappropriate software process model be avoided?

Question 2

- (a) What are the key challenges in software development?
- (b) "Software engineering involves wider responsibilities than simply the application of technical skills". Do you agree with above statement? Justify.
- (c) A company is looking to develop a Management Information System (MIS) for its worldwide business. As chief designer you have suggested to follow the shared data repository style. Justify your selection giving due consideration to the users' requirements for performance, availability, and security.