Question 01 (25 marks)

a). What is a System? (2 marks)

b). Briefly explain three main characteristics of any system? (6 marks)

c). Briefly explain three system components. (6 marks)

d). Name three types of systems. Provide one example for each. (6 marks)

e). “An Information System contains all general system components and three additional components."

(i) What is an Information System? (2 marks)

(ii) State three additional components of an Information System. (3 marks)

Question 02 (25 marks)

a). What is System Analysis and Design? (2 marks)

b). Mention three reasons which makes system analysis and design a difficult activity? (3 marks)

c). Who is the Stakeholder? List down three information system stakeholders. (5 marks)

d). What is a System Development Life Cycle(SDLC)? Mention different stages in SDLC.

(8

e). "Waterfall Methodology is a systematic and sequential approach towards software development."

(i) What is a Software Development Methodology? (2 marks)

(ii) State three situations where Waterfall Development Methodology can be applied.

(3 marks)

f). Mention two main approaches to Prototyping (2 marks)

g).

Question 03 (10 marks)

Underline the most suitable answer for the given questions.

a) The primary goal of the systems analyst is to …….

(i) Acquire a working tool

(ii) Create a wonderful system

(iii) Make a significant business impact

(iv) Establish the three phases of the SDLC

b) Consider the following skills of a Systems Analyst.

A. Working knowledge of Information Technologies

B. Specialized knowledge of database languages and technology

C. General problem-solving skills

D. Interpersonal communication skills

Which of the above is/are skills needed by systems analysts?

(i) Only (A), (B) and (C)

(ii) Only (A), (B) and (D)

(iii) Only (C)

(iv) Only (A), (C) and (D)

c) Requirement specification is carried out

(i) Before requirements are determined

(ii) After requirements are determined

(iii) Simultaneously with requirements determination

(iv) Independent of requirements determination

d) System Specifications are used to:

(i) Describe system flows

(ii) Get an accurate picture of the system

(iii) Avoids ambiguity

(iv) All of the above

e) Consider the following software development methodologies given.

A. Waterfall / Prototyping / Iterative
B. Waterfall /Parallel / Prototyping
C. Parallel /Waterfall /V Model
D. Dynamic System Development Method / Iterative / Prototyping

Select the combination of the methodologies which includes the rapid application software development methodologies.

(i) A
(ii) B
(iii) C
(iv) D

f) Which of the following is/are characteristics of a project?

A. Temporary
B. On-going
C. Repeated
D. Progressive Elaboration

(i) A & C Only.
(ii) A, B & C Only.
(iii) A & D Only
(iv) A, B & D Only

g) …… development is a structured design methodology that proceeds in a sequence from one phase to the next.

(i) Parallel
(ii) Prototyping
(iii) V Model

(iv) Waterfall

h) When your customer has a legitimate need but is clueless about the details, develop a _____ as the first step

(i) Incremental model
(ii) Prototype
(iii) Iterative model
(iv) All of above

i) What is a prototype?

(i) Mini-model of existing system
(ii) Mini-model of proposed system
(iii) Working model of existing system.
(iv) All of the above

j) The main objective of feasibility study is:

(i) To assess whether it is possible to meet the requirements specifications.
(ii) To assess if it is possible to meet the requirements specified subject to constraints of budget, human resource and hardware.
(iii) To assist the management in implementing the desired system.
(iv) To remove bottlenecks in implementing the desired system.

----------End of the Question Paper----------