POKHARA UNIVERSITY

Level: Bachelor | Semester: Fall | Year : 2021
Programme: BCA | Full Marks: 100
Course: System Analysis and Design | Pass Marks: 45
Time : 3hrs.

Candidates are required to give their answers in their own words as far as practicable.
The figures in the margin indicate full marks.
Attempt all the questions.

1. a) What are the different technology drivers of today's information system? Explain various types of information systems with example. 8
   b) What is Information system building block? Explain the different views of different stakeholder in knowledge building block. 7
2. a) What is Capability Maturity Model (CMM)? Explain its different levels, along with its effect on organization Risk and Competitiveness. 8
   b) What is methodology? Differentiate between MDD and RAD. 7
3. a) Write down symbols used in Use Case diagram. Draw a Use Case diagram for Bus Ticket Reservation system. 8
   b) What is model driven analysis? Explain the phases of decision analysis. 7
4. a) In which situation JRP is suitable? Explain participants and guidelines of JRP. 8
   b) What is object oriented analysis? How it is different from structured analysis? Explain with example. 7
5. a) Write down symbols used in E-R diagram. Draw an ER diagram for an ATM Transaction. 7
   b) What is data flow diagram (DFD)? Draw a context diagram and Level-1 DFD for a Restaurant billing system. Make your own assumption wherever necessary. 8
6. a) What do you mean by a creeping commitment? How does cost benefit analysis can predict the system economic viability study? Justify. 8
   b) Explain the techniques to system design for "In-House development" Does the "BUY Solution" make better solution to design system? 7

7. Write short notes on **any two**: 2×5

a) Phases of Project Management life cycle

b) Guidelines for conducting Interview

c) CASE for Process Modeling

POKHARA UNIVERSITY

Level: Bachelor | Semester: Fall | Year : 2020
Programme: BCA | Full Marks: 100
Course: System Analysis and Design | Pass Marks: 45
Time : 3hrs.

Candidates are required to give their answers in their own words as far as practicable.
The figures in the margin indicate full marks.
Attempt all the questions.

1. a) Identify different types of stakeholders who use or develop information systems, and give examples of each. 8
   b) What is Information system building block? Explain the different views of different stakeholder in knowledge building block. 7
2. a) The Capability Maturity Model (CMM) is a framework to assess the maturity level of an organization's information system development and management processes and products. Using adiagram describe the five levels of process maturity. 8
   b) What is structured analysis? How it is different from object oriented analysis? Explain with example. 7
3. a) Explain Fact Finding Techniques. 8
   b) Write down symbols used in Use Case diagram. Draw an Use Case diagram for ATM transaction system. 7
4. a) Write down symbols used in E-R diagram. Draw an ER diagram for an Examination result system. 7
   b) Draw zero level and 1st DFD for "Library Management System". 8
5. a) What do you mean by a creeping commitment? How does cost benefit analysis can predict the system economic viability study? Justify. 7
   b) Define a Creeping Commitment Approach? Explain the four tests for feasibility. 8
6. a) What is project management? How is task duration estimation done in project management? 8
   b) Explain the techniques to system design for "In-House development" Does the "BUY Solution" make better solution to design system? 7

2×5

7. Write short notes on **any two**:
   a) RAD
   b) CASE tool
   c) Outsourcing

POKHARA UNIVERSITY

Level: Bachelor | Semester: Fall | Year : 2019
Programme: BCA | Full Marks: 100
Course: System Analysis and Design | Pass Marks: 45
Time : 3hrs.

Candidates are required to give their answers in their own words as far as practicable.
The figures in the margin indicate full marks.
Attempt all the questions.

1.	a)	Who is system analyst? Explain various management factors of Information System Development.	7
	b)	What is an information system? Describe the different building blocks of an information system.	8
2.	a)	What is Capability Maturity Model(CMM)? Briefly explain five level of CMM.	8
	b)	Define Project manager competencies. Explain the causes of failure of projects.	7
3.	a)	What is system analysis? Explain different tasks involved in scope definition phases.	7
	b)	What is prototyping? Explain process and guidelines for conducting JRP.	8
4.	a)	What is data modeling? Explain about process of logical data modeling.	8
	b)	What is a context data flow diagram? What strategies may be implemented to document a system's scope?	7
5.	a)	What is feasibility analysis checkpoint? Explain the steps of Administrative Proposal.	5
	b)	Explain data and process model synchronization with figure. Explain.	5
	c)	Draw Entity relationship for Library Management System.	5
6.	a)	Define Creeping Commitment? What are the feasibility analysis checkpoint during system analysis?	8
	b)	What is system design? Explain the task of In-House development of system Design.	7

7. Write short notes on **any two**: 2×5

a) CASE

b) Computer Aided System Engineering

c) Project Management Body Of Knowledge(PMBOK)

POKHARA UNIVERSITY

Level: Bachelor | Semester: Fall | Year : 2018
Programme: BCA | Full Marks: 100
Course: System Analysis and Design | Pass Marks: 45
Time: 3hrs.

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

The figures in the margin indicate full marks.

Attempt all the questions.

1.	a)	Define information system. Explain Technology drivers' of today's information system	8
	b)	Explain information system building blocks with neat diagram.	7
2.	a)	What is methodology? Differentiate between MDD and RAD.	7
	b)	Define and explain about cross life cycle activities.	8
3.	a)	What is model driven analysis? Explain the phases of decision analysis.	7
	b)	Define system analysis. Explain various tasks during requirement analysis phase.	8
4.	a)	How JRP is conducted? Explain participants and guidelines of JRP.	8
	b)	What is requirement discovery? Explain various fact finding techniques.	7
5.	a)	Define use cases. Explain the process of requirement use case modelling.	7
	b)	What do you mean by data model? Define entities, attributes and relationship with appropriate ER Diagram and what are characteristics of good data model?	8
6.	a)	Construct level-1 DFD for Hospital Management System.	8
	b)	What is feasibility analysis? Explain various types of feasibility analysis performed during project Development.	7

7. Write short notes on **any two**: 2×5
   a) Rapid application Development (RAD)
   b) Phases of Project Management life cycle
   c) Tasks of in house Development

POKHARA UNIVERSITY

Level: Bachelor | Semester –Fall | Year : 2017
Programme: BCA | Full Marks: 100
Course: System Analysis and Design | Pass Marks: 45
Time : 3hrs.

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

The figures in the margin indicate full marks.

Attempt all the questions.

1. a) Define a system. Explain about different phase of System development Life Cycle. 7
   b) What is an information system? Describe the different building blocks of an information system. 8
2. a) What do you mean by the Capability Maturity Model? Explain the different levels of Capability Maturity Model. 7
   b) Explain about alternative route and strategies for information system development. 8
3. a) What is system analysis? Describe the accelerated approach of system analysis. 7
   b) Explain the importance of requirement discovery. What are the different fact finding techniques? 8
4. a) Explain use case modeling. List out the different elements of a use case diagram. 7
   b) What is data modeling? Explain about process of logical data modeling. 8
5. a) What is a context data flow diagram? What strategies may be implemented to document a system's scope? 7
   b) What is feasibility analysis and when it can be done? List out and explain the six test of feasibility. 8
6. a) Explain the different tasks involved in the "in-house" system design process. 7
   b) What is Project Management? Explain the various activities of project management. 8
7. Write short notes on **any two**: 2×5
   a) CRUD Matrix
   b) Return on investment
   c) CASE tools

POKHARA UNIVERSITY

Level: Bachelor | Semester: Fall | Year : 2016
Programme: BCA | Full Marks: 100
Course: System Analysis and Design | Pass Marks: 45
Time: 3hrs.

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

The figures in the margin indicate full marks.

Attempt all the questions.

1. a) Who is System Analyst? What are the skills that must be needed for System Analyst during System Analysis and Design? 8

   b) What is the Product Information System? Explain each in detail with your own view. 7

2. a) Why feasibility analysis is needed? What is the difference between MDD and RAD strategy? 8

   b) Why project management is needed? Explain the project management life cycle. 7

3. a) What is the Hypothetical analysis? Define Business process Redesign (BPR) and how is preliminary investigation checkpoint use for system analysis? 8

   b) What do you mean by Brain drain? Explain various types of fact finding techniques in brief. 7

4. a) Define use cases. Write the benefits of use case modeling. 7

   b) Define data modeling. Draw a ER Diagram for Library Management System. 8

5. a) Mention the benefits of using automated CASE tool in system development. Draw Data Flow Diagram (DFD 1) for the Hospital management system? 7

   b) What is the role of proposal in system development? Explain the guidelines that must be followed while developing written 8