

SAD - 328 - 2017 - 01

B.Sc (HONS) IN CSE, PART-III, SIXTH SEMESTER EXAMINATION, 2017

CSE-328

Examination Code : 616

(System Analysis and Design)

Time—3 hours

Full marks—80

[N.B.—The figures in the right margin indicate full marks. Answer any four questions. Each part of a question must be answered sequentially.]

- | | Marks |
|---|-------|
| 1. (a) Define system. Describe the elements of a system. | 6 |
| (b) Explain the process of maintaining information system. | 4 |
| (c) Who are the stakeholders in the information system?
Differentiate between system owners and system users. | 5 |
| (d) What is system analyst? What are the skills needed to be system analyst? | 5 |
| 2. (a) What is candidate system? Describe the consideration in deciding on a candidate system specifically. | 5 |
| (b) Describe four traditional techniques for collecting information during analysis. When might one be better than another? | 6 |
| (c) What do you mean by CASE? What are the difference between CASE and traditional system development? | 5 |
| (d) What are the advantages and disadvantages of prototyping? | 4 |
| 3. (a) "A data dictionary is a structured repository of data about data". Discuss briefly. | 4 |
| (b) What is System Development Life Cycle (SDLC)? Describe the steps involved in SDLC. | 6 |
| (c) Discuss why a new system might not meet user requirements. | 5 |
| (d) What is Data Flow Diagram (DFD)? What are basic rules relevant to constructing a DFD? | 5 |

SAD - 328 - 2017 - 02

Marks

4. (a) 'A question may be closed or open-ended". Illustrate the difference with example. 4
- (b) What is structured English? How can structured English be used to present sequence, condition statements and repetition in an information? 1+4=5
- (c) Describe three commonly used methods for performing economic cost-benefit analysis. 6
- (d) What are the guidelines for selecting appropriate tools? 5
5. (a) How many types of feasibility? Briefly explain them. 7
- (b) What are the objectives of database? 3
- (c) What is the goal of input and output design? What factors should we consider for designing input? 5
- (d) Explain the process of maintaining information system. 5
6. (a) What is testing? What are the types of system testing? 5
- (b) What is implementation? Differentiate between implementation and conversion. 5
- (c) What are the deliverables from coding, testing and installation? 5
- (d) Give a general guideline for the design of forms and reports. 5

SAD - 328 - 2016 - 01

B.SC (HONS) IN CSE, PART-III, SIXTH SEMESTER EXAMINATION, 2016

CSE-328

Examination Code : 616

(System Analysis and Design)

Timo- 3 hours

Full marks - 80

[N. B. - The figures in the right margin indicate full marks. Answer any four questions.]

	Marks
1. (a) Define system. What are the elements of a system?	5
(b) "An information system is an open system" – Do you agree? Justify your answer.	5
(c) Describe the different stages of System Development Life Cycle (SDLC) briefly.	6
(d) What is the difference between analysis and design? Can a system be designed without being analyzed?	4
2. (a) Elaborate on the technical and interpersonal skills required of system analyst.	6
(b) Distinguish between the strategic and operational planning.	5
(c) Discuss why a new system might not meet user requirements.	4
(d) What is prototyping? Why has the prototyping become important in the context of system design?	5
3. (a) Discuss the key strategies for eliciting information about the user requirements.	6
(b) What is Joint Application Design (JAD)? How is it better than traditional information gathering techniques?	5
(c) If you were to interview a user to obtain biographical information (age education, years of experience on the job and so forth) about the staff of 10 employees and you have only one hour to acquire the information, which of the following methods would you and why? (i) Structured interviews using open-ended questions; (ii) Unstructured interviews of five minutes each; (iii) Self-administered questionnaires; (iv) Structured interviews using closed questions;	4
(d) What is the importance of cost benefit analysis? Illustrate the difference between net present value and present value analyses.	5

SAD - 328 - 2016 - 02

4. (a) What are the tools for structured analysis ? List out the pros and cons of each tools. 1+4=5
- (b) What is a data flow diagram (DFD)? What basic rules are relevant to constructing a DFD? 5
- (c) What do you mean by logical and physical design? Write down the goal of input and output design for system development. 2+4=6
- (d) Differentiate between HIPO and IPO. 4
5. (a) Define quality assurance . List the factors that affect the quality of a system. 3
- (b) Differentiate between verification and validation. 5
- (c) What do you mean by coupling and cohesion? 3
- (d) What is a form? Summarize the characteristics of action, memory and report forms. 4
- (e) Describe the steps of feasibility analysis briefly. 5
6. (a) What is testing? What are the types of system testing? 5
- (b) Review the primary activities of a maintenance procedure. 5
- (c) List and define the factors that are important to successful implementation efforts. 5
- (d) Can one perform maintenance on a system without a post implementation review? Justify your answer. 5

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SAD - 328 - 2015 - 01

B.SC (HONS) IN CSE, PART-III, SIXTH SEMESTER EXAMINATION, 2015

CSE-328

Examination Code : 616

(System Analysis and Design)

Time- 3 hours

Full marks - 80

[N. B. - The figures in the right margin indicate full marks. Answer any four questions.]

- | | Marks |
|--|-------|
| 1. (a) What is system? Describe the characteristics of a system. | 1+4=5 |
| (b) Who are the stakeholders in the information system?
Differentiate between system owners and system users. | 2+3=5 |
| (c) Explain the different stages of System Development Life Cycle (SDLC). | 6 |
| (d) Can a system be designed without being analyzed? Justify your answer. | 4 |
| 2. (a) What are the benefits of using automated tools in system development? | 5 |
| (b) Clarify the role of CASE repository. | 5 |
| (c) Describe the considerations in deciding on a candidate system. | 5 |
| (d) Differentiate between management information systems and decision support systems. | 5 |
| 3. (a) Write the rules of data flow diagram (DFD). Give an appropriate example of DFD. | 3+3=6 |
| (b) What is feasibility study? State the steps of feasibility analysis with an example. | 2+5=7 |
| (c) Write down the importance of feasibility study. | 3 |
| (d) What is the difference between logical and physical modeling?
Why is logical modeling more important in information systems analysis? | 2+2=4 |

SAD - 328 - 2015 - 02

4. (a) What is project management? What are the characteristics that define a project? 2+3=5
- (b) What is user interface design? What are the elements that frequently cause people to have difficulty with the interface of computer system? 2+3=5
- (c) What is cost benefit analysis? Illustrate with an example. 3+3=6
- (d) Briefly describe the physical implementations of a data store. 4
5. (a) Describe prototyping process for designing forms and reports. 3+2=5
What deliverables are produced from this process?
- (b) What are the characteristics of an interface those are used to assess a system usability? 5
- (c) Discuss the benefits, problems and general design process for the use of color when designing system output. 5
- (d) What are the main characteristics of object-oriented modeling? 5
6. (a) What is documentation? Describe different types of documentation. 1+4=5
- (b) Explain the importance of input design. What factors should we consider for designing input? 3+3=6
- (c) What is referential integrity? How is referential integrity specified in the form of deletion rules? 2+3=5
- (d) What is testing? Why do we test system? 1+3=4

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SAD - 328 - 2014 - 01

B.Sc (HONS.) IN CSE PART-III SIXTH SEMESTER EXAMINATION, 2014

CSE-328

(System Analysis and Design)

Examination Code : 616

Time—3 hours

Full marks—80

[N.B.—The figures in the right margin indicate full marks. Answer any four questions. Different parts of a question must be answered sequentially.]

- | | Marks |
|--|-------|
| 1. <input checked="" type="checkbox"/> (a) What is information system analysis and design? | 3 |
| <input checked="" type="checkbox"/> (b) What is System? What are the elements of a system? | 5 |
| <input checked="" type="checkbox"/> (c) Distinguish between the following :
(i) Physical and Abstract systems;
(ii) Open and close systems. | 4+4=8 |
| <input checked="" type="checkbox"/> (d) Discuss the concepts of MIS and DSS. How are they related? | 4 |
| 2. <input checked="" type="checkbox"/> (a) What is the System Development Life Cycle (SDLC)? | 3 |
| <input checked="" type="checkbox"/> (b) What are the roles of system analyst? Elaborate on the technical and interpersonal skills required of system analysts. | 3+5=8 |
| <input checked="" type="checkbox"/> (c) Distinguish between initial investigation and feasibility study. In what way are they related? | 5 |
| <input checked="" type="checkbox"/> (d) What is prototyping? What are the advantages of prototyping? | 4 |
| 3. <input checked="" type="checkbox"/> (a) Describe four traditional techniques for collecting information during analysis. When might one be better than another? | 6 |
| <input checked="" type="checkbox"/> (b) Describe three commonly used methods for performing economic cost-benefit analysis. | 6 |
| <input checked="" type="checkbox"/> (c) Why is it difficult to determine user requirements? | 4 |
| <input checked="" type="checkbox"/> (d) "A data dictionary is a structured repository of data about data."—Discuss. | 4 |
| 4. <input checked="" type="checkbox"/> (a) What is decomposition and balancing? How can you determine if DFDs are not balanced? | 5 |
| <input checked="" type="checkbox"/> (b) What is Data Flow Diagram (DFD)? Write down the guidelines for drawing DFD. | 6 |
| <input checked="" type="checkbox"/> (c) Give a general guideline for the design of forms and reports. | 5 |
| <input checked="" type="checkbox"/> (d) What is the difference between structured English and pseudocode? | 4 |

SAD - 328 - 2014 - 02

	Marks
5. (a) Write down the objectives of database.	4
(b) What do you mean by logical and physical design? Write down the goal of input and output design for system development.	6
(c) Distinguish between the following : (i) Logical and physical design; (ii) HIPO and IPO.	3+3=6
(d) What are the advantages of up to down design? Explain it.	4
6. (a) What is testing? What are the types of system testing?	4
(b) What are the four approaches to installation? Which is the most expensive and which one is risky? How does an organization decide which approaches to use?	7
(c) What are the primary activities of maintenance procedure?	4
(d) What is implementation? Discuss the difference between implementation and conversion.	5

SAD - 328 - 2013 - 01

B.Sc (HONS.) IN CSE PART-III, SIXTH SEMESTER EXAMINATION, 2013

CSE-328

Examination Code : 616

(System Analysis and Design)

Time—3 hours

Full marks—80

[N.B.—The figures in the right margin indicate full marks. Answer any four questions.]

	Marks
1. (a) Define system. What are the characteristics of a system? (b) "An information system is an open system." Do you agree? Justify your answer. (c) Describe the different stages of system development life cycle (SDLC) briefly. (d) What is the difference between analysis and design? Can a system be designed without being analyzed?	5 5 6 4
2. (a) What is a candidate system? Describe the considerations in deciding on a candidate system specifically. (b) Discuss, why a new system might not meet user requirements. (c) What qualities should a system analyst have? How would you acquire these qualities? (d) What is prototyping? Why has the prototyping become important in the context of system design?	5 5 5 5
3. (a) Discuss the key strategies for eliciting information about the user requirements. (b) Why is it difficult to determine user requirements? (c) What traditional information gathering tools are available for the system analyst? Explain each tool briefly. (d) If you were to interview a user to obtain biographical information (age, education, years of experience on the job and so forth) about the staff of 10 employees and you have only one hour to acquire the information, which of the following methods would you use and why? (i) Structured interviews using open-ended questions; (ii) Unstructured interviews of five minutes each; (iii) Self administered questionnaires; (iv) Structured interviews using closed questions.	6 4 6 4

SAD - 328 - 2013 - 02

	Marks
4.	(a) What are the tools for structured analysis? List out the pros and cons of each tool. 5
	(b) What is Data Flow Diagram (DFD)? What basic rules are relevant to constructing a DFD? 5
	(c) Describe the steps of feasibility analysis briefly. 5
	(d) What is the importance of cost benefit analysis? Illustrate the difference between net present value analysis and present value analysis. 5
5.	(a) What is meant by usability and what characteristics of an interface are used to access a systems usability? 5
	(b) Write down the objectives of database. 4
	(c) Give a general guidelines for the design of forms and reports. 5
	(d) Write down the general guidelines for displaying tables and lists. 6
6.	(a) What are the deliverables from coding, testing and installation? 4
	(b) List and define the factors that are important to successful implementation efforts. 5
	(c) What is testing? What are the types of system testing? 5
	(d) What are the different types of maintenance and how do they differ? 6

SAD - 328 - 2012 - 01

B.SC (HONS) IN CSE, PART-III, SIXTH SEMESTER EXAMINATION, 2012

CSE-328

Examination Code : 616

(System Analysis and Design)

Time- 3 hours

Full marks - 80

[N. B. - The figures in the right margin indicate full marks. Answer any four questions.]

	Marks
1. (a) What is information system analysis and design?	3
(b) Who are system analysts? What are the skills needed to be system analyst?	6
(c) List and explain different types of information systems for system development. How do they differ from each other?	7
(d) Why feasibility study is important?	4
2. (a) What are the steps of system design?	5
(b) What is the role of system analyst?	3
(c) Describe the fundamental principles of system analysts.	8
(d) What is system thinking and prototyping?	4
3. (a) Describe four traditional techniques for collecting information during analysis. When might one be better than another?	7
(b) 'A question may be closed or open-ended'. Illustrate the difference with example.	4
(c) What is Joint Application Design (JAD)? How is it better than traditional information gathering techniques?	4
(d) Describe three commonly used methods for performing economic cost-benefit analysis.	5

SAD - 328 - 2012 - 02

4. (a) What is Data Flow Diagram (DFD)? Write down the guidelines for drawing DFD. 6
- (b) What is decomposition and balancing? How can you determine if DFDs are not balanced? 5
- (c) Give a general guideline for the design of forms and reports. 5
- (d) What is structured English? How can structured English be used to present sequence, conditional statements and repetition in an information system process? 4
5. (a) What is the goal of input and output design. 5
- (b) Explain the process of maintaining information system. 5
- (c) Write down the objectives of database. 5
- (d) Differentiate between verification and validation. 5
6. (a) What are the primary activities of maintenance procedure? 5
- (b) Briefly explain system documentation and user documentation. 10
- (c) Differentiate between programmer document and operational document. 5

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SAD - 328 - 2011 - 01

B.Sc (HONS.) IN CSE PART-III, SIXTH SEMESTER EXAMINATION, 2011

CSE-328

(System Analysis & Design)

Time—3 hours

Full marks—80

[N.B.—The figures in the right margin indicate full marks. Answer any four questions.]

- | | | Marks |
|-----|---|--------|
| 1. | <p>(a) What is System? Write down the characteristics of a system.
(b) Why is database important in Management Information System? Explain. M-434</p> | 5
5 |
| 2. | <p>(c) Define formal and informal information system. How important is the informal information system in system analysis? Explain.
(d) Distinguish between initial investigation and feasibility study. M-4634</p> | 6 |
| (2) | <p>(a) What is the system development life-cycle? How does it relate to system analysis?
(b) What are the difference between analysis and design? Can you begin to design without analysis? Why? M-461</p> | 5
5 |
| | <p>(c) Elaborate on the technical and interpersonal skills required of system analysis. When is one skill favored over the other? Why?
(d) What is Prototyping? What are the advantages of prototyping? M-454</p> | 6 |
| 3. | <p>(a) Discuss the key strategies for eliciting information about the user's requirements.
(b) Why is it difficult to determine user requirements? M-452</p> | 6
4 |
| | <p>(c) What traditional information-gathering tools are available for the system analyst? Explain each tool briefly. M-458 Lec - 11 to 14</p> | 6 |
| | <p>(d) If you were to interview a user to obtain biographical information (age, education, years of experience on the job, and so forth) about the staff of 10 employees and you have only one hour to acquire the information. Which of the following methods would you use and why?</p> <ul style="list-style-type: none">(i) Structured interviews using open-ended questions;(ii) Unstructured interviews of five minutes each;(iii) Self-administered questionnaires;(iv) Structured interviews using closed questions. | 4 |

SAD - 328 - 2011 - 02

Marks

4. (a) What are the tools for structured analysis? List out the pros and cons of each tool. M-47 5
- (b) What is Data Flow Diagram (DFD)? What basic rules are relevant to constructing a DFD? M-465 5
- (c) Describe the steps of feasibility analysis briefly. M-477 5
- (d) What is the importance of cost benefit analysis? Illustrate the difference between net present value and present value analyses. M-4785
5. (a) Distinguish between the following :— 6
- (i) Logical and physical design; M-450, 486)
 - (ii) HIPO and IPO; M-(523, 484 HIPO)
 - (iii) Coupling and cohesion. M-(482, 487)
- (b) What are the advantage of topdown design? Explain it. M-481 4
- (c) Briefly explain three approaches for data entry. M-480 4
- (d) What is unique about online data entry? What role does a CRT terminal play for input and output? 6
6. (a) What is implementation? Discuss the difference between implementation and conversion. M-507 5
- (b) If a new system design is likely to meet user specifications, why do users resist change? How would one reduce resistance to change? 5
- (c) Review the primary activities of a maintenance procedure. 5
- (d) Can one perform maintenance on a system without a post implementation review? Justify your answer. 5

SAD - 328 - 2010 - 01

B.Sc (HONS.) IN CSE, PART-III, SIXTH SEMESTER EXAMINATION, 2010

CSE-328

(System Analysis and Design)

Time—3 hours

Full marks—80

[N.B.—The figures in the margin indicate full marks. Answer any four questions.]

- | | Marks |
|---|-------|
| 1. (a) What is information systems analysis and design? P-461 | 3 |
| (b) Explain the traditional application-based approach to system development. How is this different from the database approach? | 6 |
| (c) Give an idea about Management and Information levels in a typical Organization. Include necessary figure for that. P-493 | 7 |
| (d) Describe the difference in the role of a system analyst in the SDLC versus prototyping. (448 - 454) | 4 |
| 2. (a) Write down the differences between :—

(i) Problem identification and problem solving;
(ii) Logical system description and physical system description. | 6 |
| (b) What are the key questions included during system development life-cycle? P-415 | 6 |
| (c) A number of activities are carried out under implementation. Elaborate. | 6 |
| (d) What is system thinking? | 2 |
| 3. (a) Describe four traditional techniques for collecting information during analysis. When might one be better than another? Lec-14 | 6 |
| (b) Compare collecting information by interview and by questionnaire. Lec-14 | 4 |
| (c) Describe three commonly used methods for performing economic cost-benefit analysis. P-478 | 4 |
| (d) What is tangible cost and intangible cost? | 3 |
| (e) What is Joint Application Design (JAD)? How is it better than traditional information gathering techniques? | 3 |

SAD - 328 - 2010 - 02

Marks

4. (a) What is data flow diagram? Why do system analysts use data flow diagrams? 5
- (b) What is decomposition and balancing? How can you determine if DFDS are not balanced? 6
- (c) What is the purpose of logical modelling? What techniques are used to model decision logic and what techniques are used to model temporal logic? 4
- (d) What design methodologies are used in system design? Define logical design. 5
5. (a) What is the goal of input and output design? P-439 6
- (b) Give a general guidelines for the design of forms and reports. 5
- (c) Discuss the benefits, problems and general design process for the use of color when designing system output. 6
- (d) Write down the objectives of database. 3
6. (a) What are the primary activities of maintenance procedure? 5
- (b) Describe the factors that influence the cost of maintenance. Are any factors more important? Why? 6
- (c) What is testing? What are the types of system testing? P-528 -
P-505 5
- (d) Differentiate system documentation and user documentation. 3

SAD - 328 - 2009

B. Sc (HONS.) IN CSE PART-III, SIXTH SEMESTER EXAMINATION, 2009

CSE-328

(System Analysis and Design)

Time—3 hours

Full marks—80

[N.B.—The figures in the right margin indicate full marks. Answer any four of the following questions.]

- | | Marks |
|--|-------|
| 1. (a) What do you mean by information system? What is the importance of system development? | 5 |
| (b) What are the different stages of system development life-cycle? Briefly describe. <i>SDLC</i> <i>M-415</i> | 10 |
| (c) Why feasibility study is important? | 5 |
| 2. (a) What are the steps of system design? <i>M - 480</i> | 5 |
| (b) What is the role of system analyst? <i>M-448</i> | 2 |
| (c) Describe fundamental principles of system analysis. | 8 |
| (d) Give an example of Decision table. <i>D</i> | 5 |
| 3. (a) What are Data flow diagrams? How do they differ from structure charts? <i>M-153463</i> | 8 |
| (b) Differentiate between the functionality of input design and output design? | 4 |
| (c) Describe logical and physical design. <i>M-4180</i> | 8 |
| 4. (a) What is the importance of process design? | 6 |
| (b) Differentiate between validation and verification. | 6 |
| (c) Why do we test systems? What types of test data are used in system testing? | 8 |
| 5. (a) What is a syntax error? How does it differ from a logic error? Give an example. <i>M-566</i> | 10 |
| (b) Explain the process of maintaining information system. | 5 |
| (c) What are the different types of maintenance? Explain them. <i>M-508</i> | 5 |
| 6. (a) What is the main difference between maintenance and enhancement? <i>M - 508</i> | 5 |
| (b) Why do we need documentation? | 5 |
| (c) Describe different activities of a maintenance procedure. <i>Type procedure</i> | 8 |
| (d) What do you mean by operational document? | 2 |