

Name:
Enrolment No:



UNIVERSITY OF PETROLEUM AND ENERGY STUDIES
End Semester Examination, December 2019

Course: Database Analysis and Design
Program: BBA(AIS)
Course code: DSQT 2002
Instructions: All Questions are Compulsory

Semester: III
Time: 3 Hours
Max. Marks: 100

SECTION A (10 * 2 Marks Each - 20 Marks)

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| Q-1 | A _____ is an outline of a process that keeps develop successful information systems (A)System Development Life Cycle (B)CASE tool (C)Phased Conversion (D)Success Factors (E)Move of the above | 2 | CO1 |
| Q-2 | The data Flow Diagram is the basic component of system A) Conceptual B) Logical C) Physical D) None of the above | 2 | CO1 |

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| Q-3 | <p>The Key considerations involved in the feasibility analysis is / are</p> <p>A) Economic B) Technical C) Behavioral D) A, B, C</p> | 2 | CO1 |
| Q-4 | <p>A problem's _____ will answer the question, "What information will the computer need to know in order to either print or display the output times?"</p> <p>(a)Input (b)Output (c)Processing (d)Purpose (e)None of the above</p> | 2 | CO1 |
| Q-5 | <p>Which of the following statements is false with respect to a Data Dictionary?</p> <p>(a) It is a repository of the elements in a system. (b) data dictionary and data store both are same (c) It manages detail (d) It communicates the common meanings for system elements and activities. (e) It documents system features.</p> | 2 | CO1 |

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| Q-6 | <p>Cost-Benefit Analysis is performed during</p> <ul style="list-style-type: none"> (a) Analysis phase (b) Design phase (c) Feasibility study phase (d) Implementation phase (e) Maintenance phase. | 2 | CO1 |
| Q-7 | <p>Documentation is prepared</p> <ul style="list-style-type: none"> (A) at every stage (B) at system design (C) at system analysis (D) at system development (E) None of the above | 2 | CO1 |
| Q-8 | <p>Which of the following strategies are adopted if information requirements are not well-defined?</p> <ul style="list-style-type: none"> (a) Rapid application development method (b) Structured analysis development method (c) Systems development life cycle method (d) Prototyping method (e) Spiral method. | 2 | CO1 |
| Q-9 | <p>The role of a system analyst drawing up a requirements specification is similar to</p> <ul style="list-style-type: none"> a. architect designing a building b. a structural engineer designing a building c. a contractor constructing a building d. the workers who construct a building | 2 | CO1 |

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| Q-10 | During what phase, the requirement analysis is performed? a. system design phase b. system development phase c. system analysis phase d. system investigation phase | 2 | CO1 |
| SECTION B (4* 5 Marks Each -20 Marks) | | | |
| Q-1 | Differentiate between technical feasibility and operational feasibility of a project. | 5 | CO2, 3 |
| Q-2 | What is Joint Application Development Approach? What are the advantages and disadvantages. | 5 | CO2, 3 |
| Q-3 | Briefly describe the Waterfall model of software life-cycle with the help of a suitable schematic diagram. | 5 | CO4 |
| Q-4 | What is prototyping? Briefly explain the benefits of prototyping in software development. | 5 | CO4 |
| SECTION-C (3* 10 Marks Each- 30 Marks) | | | |
| Q-1 | What is MIS ? What are different components of MIS? Explain different categories of information required to serve the needs of different levels of management in an organization. | 10 | CO2, CO4 |
| Q-2 | Draw the schematic diagram of spiral model and explain the various phases involved in it. For which types of development projects is spiral model suitable ? | 10 | CO4 |
| Q-3 | Draw the context diagram and a set of data flow diagrams for developing a library management system with the following functionalities. List the assumptions made in your analysis. (i) Inquiring the availability of a book by giving the ISBN or title or author's name (ii) Renting a book that is available (iii) Returning a book after use (iv) Reserving a book when it is not available (v) Collection of overdue charges (vi) Maintaining book details (vii) Maintaining supplier details who supply. | 10 | CO2, 3 |

SECTION-D**(2*15=30 MARKS)**

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| Q-1 | <p>What is meant by cohesion and coupling in design solution ? What is the relation between cohesion and coupling in modular design? Explain it with an example.</p> <p>(b) What is meant by system testing? Explain different types of system testing.</p> | 15 | CO1, 2,3 |
| Q-2 | <p>Assume that you are given the following details of a small mail order catalogue system that allows people to shop from home :: When a customer receives the catalogue and wants to buy something, he can telephone, fax or email his order to the company. The company gets the order and sends the goods and an invoice. When the customer receives the goods with a delivery note, he sends payment and receives a receipt for payment. Draw the context diagram and data flow diagrams up to level2 to analyze the requirements of this system. Also, give the data dictionary.</p> | 15 | CO2, 3 |
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