

Possible Question: System Analysis and Design (Chapter 1-4)

Chapter 1:

Short Notes/ Questions:

1. Information System, Information Technology, Transaction processing Systems (Page 6)
2. Types of system users (Page 9)
3. Types of system designers (Page 10)
4. Types of system builders (Page 10,11)
5. Types of system analysts (Page 11)
6. Skills needed for system analysts (Page 14)
7. Types of electronic commerce and business (Page 18)
8. Knowledge asset management (Page 21)
9. TQM (Page 21)
10. CPI (Page 21)
11. BPR (Page 21)
12. ERP (Page 26)
13. SCM (Page 27)
14. CRM (Page 28)
15. EAI (Page 29)

Broad Questions:

1. Describe the system stakeholders (Page 7-12)
2. Describe the types of system users (Page 8-10)
3. Who is a system analyst? What roles a system analyst play? And what skills a system analyst needs? (Page 11-15)
4. Define Enterprise application and describe the core business functions of EA. (Page 26-28)
5. Describe a system development process (Page 30-33)

Chapter 2:

Short Notes/ Questions:

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1. Front office IS (Page 44)
2. Back office IS (Page 45)
3. MIS (Slide 6)
4. DSS (Slide 6)
5. EIS, Expert System, Communication and Collaboration System, Office Automation System (Slide 7)
6. IS architecture (Slide 8)
7. 3 goals of IS (Slide 8)
8. Types of network technologies (Page 59)

Broad Questions:

1. Broadly describe knowledge building block. (Page 47,50,51 or class notes)
2. Broadly describe process building block (Page 51, 53-55, or class notes)
3. Broadly describe communication building block (Page 55,57,58)

Chapter 3:

Short Notes/ Questions:

1. System development process (Page 68)
2. CMM (Page 69)
3. System life cycle functioning (Page 71) Figure 3.2
4. Process Management, Project management. (Page 74)
5. PIESES (Page 77)
6. Result of a planned project? (Page 77 or class notes)
7. Backlog (Page 77)
8. Cross life-cycle activities (Page 88)
9. fact-finding (Page 88)
10. Sequential development (Page 89)
11. Iterative development (Page 89)
12. Data modeling (Page 97)

13. Object modeling (Page 97)
14. Process modeling (Page 96)
15. RAD (slide 30)
16. Prototype (slide 30)
17. CAP (Page 32)
18. Information technology standardized by which 3 technologies? (Page 74)
19. Types of physical design (Page 86)
20. 4 basic ideas of RAD (page 98)

Broad Questions:

1. Describe CMM with its 5 levels (Page 69,70)
2. What is FAST phases and describe all the phases with participants and deliverables (Page 79-88)
3. What is decision analysis? Describe all 5 decision analysis.
4. What is system operations and maintenance? Describe 4 ongoing activities of SOM (Page 88)
5. Describe cross life cycle activities and its activities (Page 88,89)
6. Advantages, disadvantages of model driven development strategy (Page 96)
7. Advantage, disadvantages of RAD (Page 100)
8. Advantage, disadvantages of CAP (Page 103)
9. Describe computer- assisted systems engineering with its repository and facilities (discuss all the facilities) (Page 108)
10. Describe application development environment (Page 109,111)

Chapter 4:

Short Notes/ Questions:

1. Project Manager (Page 120)
2. Project (Page 120)
3. Project Management (Page 121)

4. Process Management (Page 121)
5. PERT chart (Page 125)
6. Gantt chart (Page 125)
7. Joint Project Planning JPP (Page 127)
8. Work Breakdown Structure WBS (Page 130)
9. Optimistic Duration OD, Pessimistic Duration PD, Expected Duration ED, Most likely Decision D (Page 133)
10. Forward scheduling, Reverse scheduling (Page 135)
11. Resource leveling, Critical path, Slack time (Page 138)

Broad Questions:

1. Estimation for task math:

Expected hours / Expected efficiency = (Answer of expected hours/ expected efficiency) / (Percentage of expected efficiency – interruptions) (Page 133)

2. Most likely duration (D) math: (Page 133)

$$D = \frac{(1 * OD) + (4 * ED) + (1 * PD)}{6}$$

3. Critical Path, Shortest Path, Longest Path Math (Page 147, Practice difficult math's from google)

Chapter 5:

Short Notes/ Questions:

1. Requirement discovery (Page 208)
2. System requirement (Page 208)
3. Functional requirement (Page 208)
4. Nonfunctional requirement (Page 208)
5. Ishikawa diagram (Page 211)

6. Fact-finding (Page 212)
7. Requirement management (Page 215)
8. Sampling (Page 216)
9. Randomization (Page 217)
10. Stratification (Page 217)
11. Observation (Page 218)
12. Work sampling (Page 220)
13. Questionnaires (Page 220)
14. Free format questionnaires, fixed format questionnaires (Page 221)
15. Structured interview, unstructured interview (Page 223)
16. Proxemics (Page 228)
17. Discovery prototyping (Page 229)
18. Joint requirement planning JRP (Page 229)

Broad Questions:

1. Result of an incorrect system requirement (page 208)
2. Criteria for system requirement (Page 210)
3. Write down 4 (four) process of requirement discovery (Page 210- 215)
4. Write down 7 (seven) fact finding methods (215-231) (Follow class lectures)
5. How to conduct a JRP session and write down the JRP guidelines (Page 231-233)
6. Sample size math's (2 types) (Page 217)

$$SS = 0.25 * (Certainty\ factor / Acceptable\ error)^2$$

$$SS = p (1 - p) (Certainty\ factor / Acceptable\ error)^2$$