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Sardar Patel University  
External Examination  
B. Sc. 5<sup>th</sup> Semester (Information & Technology)  
US05CINT05 : System Analysis Design & Software Engineering  
Thursday, 1<sup>st</sup> November - 2018

Time : 10:00 am to 01:00 pm

Total Marks : 70

**Q.1 Select the correct answer for the following.**

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1. The interconnections and interactions between the subsystems are termed as \_\_\_\_\_.  
(a) Boundary (b) Subsystem (c) Black box (d) Interface
2. The example of conceptual system is \_\_\_\_\_.  
(a) Philosophy (b) Solar (c) Water (d) Computer
3. \_\_\_\_\_ means reports contain misleading information.  
(a) Problem of Reliability (b) Problem of Validity  
(c) Problem of Timeliness (d) Problem of Capacity
4. Which of the following is the example of Onetime cost?  
(a) Salary (b) Construction  
(c) Purchase of Equipments (d) Supplies
5. \_\_\_\_\_ means reports have many errors.  
(a) Problem of Accuracy (b) Problem of Validity  
(c) Problem of Timeliness (d) Problem of Capacity
6. The \_\_\_\_\_ is a graphic representation of data movement, process and files.  
(a) Data Dictionary (b) DFD (c) Decision Table (d) None of these
7. Which of the following is not a component of system implementation?  
(a) Programming (b) Testing (c) Designing (d) Conversion
8. \_\_\_\_\_ documentation contains instructions for normal operation.  
(a) Design (b) Program (c) Training (d) Operation
9. \_\_\_\_\_ model provides better risk management and cost of each phase.  
(a) Spiral (b) Prototype (c) Iterative enhancement (d) Waterfall
10. \_\_\_\_\_ part requires major efforts.  
(a) Testing (b) Maintenance (c) Coding (d) Design

**Q.2 Answer in short. (Attempt any TEN)**

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1. List characteristics of System.
2. Define :- Boundary and Environment.
3. List subsystem of Business Organization System.
4. List stages of System Design.

5. Write difference between Open and Close system.
  6. List Input, Process, Output and Feedback of University System.
  7. List all methodology of SSADM.
  8. Explain System Survey.
  9. Explain Structure Analysis of SSADM.
  10. List down characteristics of Software Process.
  11. Explain Error Distribution.
  12. Explain advantages of Spiral Model.
- Q.3** [a] Explain General Model of System with example. 5
- [b] "Feed back is a control device to maintain the equilibrium in a system" Discuss with example. 5

**OR**

- Q.3** [a] Who is system analyst? Explain role of system analyst. 5
- [b] Write notes on Black Box. 5
- Q.4** [a] Explain system design specification and programming. 5
- [b] Write difference between technical and operational feasibility. 5

**OR**

- Q.4** [a] Write difference between System Analysis and System Design. 5
- [b] Explain Problem Identification & Feasibility study. 5
- Q.5** [a] Explain need for structured analysis and design. 5
- [b] Write difference between tangible and intangible benefit. 5

**OR**

- Q.5** [a] Explain structure design of SSADM. 5
- [b] System Implementation consists of system acquisition, programming, testing, conversion and documentation. Explain it. 5
- Q.6** [a] Explain design, coding and testing phase of software development. 5
- [b] Explain Iterative Enhancement model. 5

**OR**

- Q.6** [a] Explain Waterfall model. Also write limitations of Waterfall model? 5
- [b] Explain Prototype model. 5

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