



(Following Paper ID and Roll No. to be filled in your Answer Book)

**PAPER ID : 1470**

Roll No.

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**M. C. A.**

**(SEM. II) EXAMINATION, 2007-08**

**SYSTEM ANALYSIS & DESIGN**

*Time : 3 Hours]*

*[Total Marks : 100*

Note : (i) *Attempt all questions.*

(ii) *All questions carry equal marks.*

1 Attempt any **two** of the following : **10×2=20**

(a) Distinguish between (i) physical and abstract systems (ii) open and closed systems.

(b) Take an organisation with which you are familiar and examine the following :

(i) Primary subsystems

(ii) Characteristics

(iii) Elements

(iv) Purpose.

(c) How important is the informal information system in systems analysis ? Explain.



2 Attempt any **two** parts of the following :  $10 \times 2 = 20$

- (a) What is the system development life cycle ?  
How does it relate to system analysis ?
- (b) A number of activities are carried out under implementation. Elaborate.
- (c) Discuss the behavioral issues involved in understanding the analyst/user interface.

3 Attempt any **four** of the following :  $5 \times 4 = 20$

- (a) Distinguish between strategic and operational planning.
- (b) Elaborate on the top-down approach to system planning. What it means, its users and its implications for system development ?
- (c) List four situations that make the use of questionnaire appropriate.
- (d) Why is it difficult to determine user requirements ? Illustrate.
- (e) A question may be closed or open-ended. Illustrate the difference.
- (f) Elaborate on the pros and cons of data analysis method and decision analysis method.

4 Attempt any **four** of the following :  $5 \times 4 = 20$

- (a) What is the procedure for constructing a questionnaire ?
- (b) Under what circumstances would the analyst depend more heavily on external than internal information ? Why ?



- (c) Distinguish between validity and reliability. How are they related ?
- (d) What traditional information gathering tools are available for the analyst ?
- (e) For what purpose would one use an interview rather than the data collection methods ? Explain.
- (f) What points should be considered in constructing a data dictionary ?

Attempt any **two** of the following :

**10×2=20**

- (a) What makes up for a feasibility report ? How would you change it ? Explain.
- (b) There are three methods of aquisition. What are they ? Elaborate on the pros and cons of each method.
- (c) What is a form ? Summarize the characteristics of action, memory and report forms.



Printed Pages : 4

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**M. C. A.**

(SEM. II) EXAMINATION, 2006-07

**SYSTEM ANALYSIS & DESIGN**

*Time : 3 Hours]*

*[Total Marks : 100*

*Note : Attempt all questions.*

**1** Answer any **four** parts : **4×5=20**

- (a) What is meant by scope of a system? Explain with an example.
- (b) Describe the role of a system administrator.
- (c) Why is it important to differentiate between personal, impersonal and anonymous communication?
- (d) How is problem finding related to problem solving? Explain with example.
- (e) Describe the essential component and capabilities of a DSS.
- (f) Will information sharing always result in coordination or collaboration between business process? Explain.

**2** Answer any **four** parts : **4×5=20**

- (a) Why is documentation important to the information system life cycle? Explain.

- (b) What is the difference between system analysis and system design? Explain.
- (c) What do you mean by cause-and-effect analysis? Explain with example.
- (d) Describe the user's contribution to information system planning.
- (e) Who are the parties involved in an organization's information system and how does each affect the psychological climate?
- (f) What are the factors that should be kept in mind while designing GUI?

3 Answer any **two** parts : **10×2=20**

- (a) (i) Differentiate among the following plans: strategic, long range, medium range, and short range.
- (ii) What is meant by "project portfolio" and what purpose does it serve?
- (b) What is meant by requirement analysis? Why does requirements analysis never really end for a project? How can this reality be accommodated? Discuss.
- (c) (i) What are the seven common fact finding techniques? Explain any one of them.
- (ii) Differentiate between functional and non-functional requirements.

4 Answer any **two** parts : **10×2=20**

- (a) (i) Explain the difference between a structured interview and an unstructured interview? When is each type of interview appropriately used?

- (ii) List and explain six guidelines for effective listening.
- (b) (i) Explain how requirements error, if left undetected, costs more to fix as the project progresses through the life cycle.
- (ii) Describe the initial two steps followed by a system analyst when he/she is requested to design an information system.
- (c) A magazine is published monthly and is sent by post to its subscribers. Two months before the expiry of subscription, a reminder is sent to the subscriber. If subscription is not received within a month, another reminder is sent. If renewal subscription is not received upto two weeks before the expiry of the subscription, the subscriber's name is removed from the mailing list and the subscriber is informed. Obtain a physical and logical DFD for this problem.

Answer any **two** parts :

**10×2=20**

- (a) (i) Distinguish between technical, operational and economical feasibility with suitable examples.
- (ii) List several intangible benefits. How would you quantify each intangible benefit in terms of money say rupees (a measure that management can understand) ?
- (b) (i) What are characteristics that can be used to classify outputs? Also differentiate between external and internal outputs.
- (ii) What are turnaround documents? Give several examples.

- (c) (i) What implications would input design likely have on output design? How about the other way around?
- (ii) What are the important special considerations for user interface design? Explain.