

2012  
( JUNE )  
**BACHELOR OF COMPUTER APPLICATIONS**  
( System Analysis And Design )  
Course No : 402  
Full Mark: 75  
Time: 3 hours

*The figures in the margin indicate full marks for the questions.*

**(Part A: Objective)**  
(Marks : 25)  
**SECTION - I**

1. Tick (✓) the correct answer: (1 x 10 = 10)
- (a). "It is orderly grouping of interdependent components linked together according to a plan to achieve specific objectives".
- |                       |         |
|-----------------------|---------|
| i) System             | (     ) |
| ii) System Design     | (     ) |
| iii) Structure Design | (     ) |
| iv) Decision Rule     | (     ) |
- (b) Substituted computer-based processing for manual procedures. Deals with well-structured routine processes. Includes record keeping applications.
- |                                   |         |
|-----------------------------------|---------|
| i) Transaction processing system  | (     ) |
| ii) Decision processing system    | (     ) |
| iii) Information system           | (     ) |
| iv) Management information system | (     ) |



(c) Oversees investment in development or use of the system has organizational.

- i) Hand-on end-user ( )
- ii) Indirect end-user ( )
- iii) User manager ( )
- iv) Senior manager ( )

(d) Are there sufficient benefits in creating the systems to make the costs acceptable? Or, are the costs of not creating the system so great that the project must be undertaken?

- i) Technical Feasibility ( )
- ii) Economic Feasibility ( )
- iii) Operational Feasibility ( )
- iv) Budget Feasibility ( )

(e) Input media and devices don't include:

- (1) Punch card
- (2) Key-to-diskette
- (3) Optical character reader
- (4) Optical Bar code reader
- (5) MICR
- (6) Cathode Ray Tube (CRT)

- i) (1) & (3) only ( )
- ii) (3) & (4) only ( )
- iii) (6) only ( )
- iv) None of the above ( )

(f) In Data Flow Diagram, a circle symbol represents.

- i) Input/Output ( )
- ii) Process/Function ( )
- iii) Database ( )
- iv) Relations ( )



(g) Prevents Error from occurring in the software

- i) Error tolerance ( )
- ii) Error avoidance ( )
- iii) Error detection and correction ( )
- iv) None of the above ( )

(h) \_\_\_\_\_ is the process of Recording, classifying and reporting the financial data of a business.

- i) Vouchers ( )
- ii) Profit and loss account ( )
- iii) Financial accounting ( )
- iv) Balance sheet ( )

(i) Verification is also intended to find errors. It is performed by executing a program in a stimulated environment. They are also called

- i) Alpha testing ( )
- ii) Beta testing ( )
- iii) Unit testing ( )
- iv) System testing ( )

(j) It is combination of software applications and a database design to take customer information regarding charges to be made to that customer.

- i) Billing system ( )
- ii) Payroll system ( )
- iii) Library system ( )
- iv) Inventory system ( )



## **SECTION-II**

### **II. State whether True(T) or False(F) (1x5=5)**

- i) A business is also a system. Its components- marketing, manufacturing, sales, research, shipping, accounting, and personnel- all work together to create a profit that benefits the employees and stock-holders of the firm. ( )
- (ii) Types of maintenance include Corrective, Adaptive, Perfective. ( )
- (iii) Back-end tools are aimed at assisting the analyst in the formulation of programme logic, processing algorithms, and physically descriptions of data, device interaction etc. ( )
- (iv) In Direct cutover method the old system is operated along with the new system. ( )
- (v) Record review allows analysts to gain information they cannot obtain by any other fact-finding method. ( )



### ***SECTION-III***

**III. Answer the following questions: (2x5=10)**

- a) Define system? Explain the difference between Open and Close system. Give example.



- b) What is Documentation? Explain the two types of Documentation.



- c) What is data dictionary? Explain the importance of Data dictionary.



- d) What is systems reliability? Discuss the approaches to systems reliability?



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- e) Discuss the different stages of payroll processing.

\*\*\*\*\* II/BCA/402/9\*\*\*\*\*



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(SYSTEM ANALYSIS AND DESIGN)**

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*Answer the following questions.*

1. Elaborate different system development strategies. (10)

**OR**

What are tools in the context of system analysis and design? What are the different types of tools for system development. (3+7=10)

2. a) What is structured english? Briefly describe each of the structures used in structured english. (6)
- b) Write short notes on Decision table. (4)

**OR**

What is the purpose of DFD? Write the advantages of DFD. Explain the different symbols used in DFD. (2+3+5=10)



3. a) What objectives guide input design? Briefly describe each. (7)

- b) What is a form? Write three types form Design. (3)

**OR**

What is CASE tools? What are its purposes and applications in System Analysis and Design. (2+8=10)

4. a) What is the purpose of system training? How do user and operator training differ? (4)

- b) What is HIPO? Discuss the concept and its components (6)

**OR**

Describe the principles of software design? What results can occur if the principles are not followed. (7+3=10)

5. Draw DFD and design the database for Financial Accounting system. (10)

**OR**

Draw DFD and design the database for Library System. (10)

\*\*\*\*\*IV/BCA/402\*\*\*\*\*