

**DiplETE – CS (Current & New Scheme)**

Time: 3 Hours

**DECEMBER 2015**

Max. Marks: 100

*PLEASE WRITE YOUR ROLL NO. AT THE SPACE PROVIDED ON EACH PAGE IMMEDIATELY AFTER RECEIVING THE QUESTION PAPER.*

**NOTE:** There are 9 Questions in all.

- Question 1 is compulsory and carries 20 marks. Answer to Q.1 must be written in the space provided for it in the answer book supplied and nowhere else.
- The answer sheet for the Q.1 will be collected by the invigilator after 45 minutes of the commencement of the examination.
- Out of the remaining EIGHT Questions answer any FIVE Questions. Each question carries 16 marks.
- Any required data not explicitly given, may be suitably assumed and stated.

**Q.1 Choose the correct or the best alternative in the following: (2×10)**

- a. \_\_\_\_\_ is an important factor of Management Information System.
- |             |          |
|-------------|----------|
| (A) System  | (B) Data |
| (C) Process | (D) All  |
- b. \_\_\_\_\_ level supplies information to strategic tier for the use of top management.
- |                 |                   |
|-----------------|-------------------|
| (A) Operational | (B) Environmental |
| (C) Competitive | (D) Tactical      |
- c. In a DFD external entities are represented by a \_\_\_\_\_
- |                        |             |
|------------------------|-------------|
| (A) Rectangle          | (B) Ellipse |
| (C) Diamond shaped box | (D) Circle  |
- d. \_\_\_\_\_ can be defined as data that has been processed into a form that is meaningful to the recipient and is of real or perceived value in current or prospective decisions.
- |                |                 |
|----------------|-----------------|
| (A) System     | (B) Information |
| (C) Technology | (D) Service     |
- e. Use the new system along with the old system to compare the results. This is known as \_\_\_\_\_
- |                        |                             |
|------------------------|-----------------------------|
| (A) Procedure Writing  | (B) Simultaneous processing |
| (C) Parallel Operation | (D) File Conversion         |
- f. After the design phase the document prepared is known as \_\_\_\_\_
- |                          |                               |
|--------------------------|-------------------------------|
| (A) System specification | (B) Performance specification |
| (C) Design specification | (D) None of these             |

**Code: DC59/DC109 Subject: ANALYSIS & DESIGN OF INFORMATION SYSTEMS**

- g. A data flow can  
 (A) Only emanate from an external entity  
 (B) Only terminate in an external entity  
 (C) May emanate and terminate in an external entity  
 (D) May either emanate or terminate in an external entity but not both
- h. \_\_\_\_\_ can be defined as most recent and perhaps the most comprehensive technique for solving computer problems.  
 (A) System Analysis (B) System Data  
 (C) System Procedure (D) System Record
- i. Which of the following is / are the Characteristics of information?  
 (A) Accuracy and Relevance (B) Form of information and Timeliness  
 (C) Completeness and Purpose (D) All of these
- j. Actual programming of software code is done during the \_\_\_\_\_ step in the SDLC.  
 (A) Maintenance and Evaluation (B) Design  
 (C) Analysis (D) Development and Documentation

**Answer any FIVE Questions out of EIGHT Questions.  
 Each question carries 16 marks.**

- Q.2** a. What do you mean by system analysis and design? Discuss. (8)  
 b. What is meant by a System? What are the characteristics of a System? What are the elements of a System? Explain in detail. (8)
- Q.3** a. Explain the concept of Object Oriented Analysis and Design. What are its purposes? What is Object Modeling? (8)  
 b. What are the essential elements of a design pattern? (8)
- Q.4** a. Define Data Modeling. Explain the process of Logical Data Modeling and Physical Data Modeling. (8)  
 b. Give an overview of Requirement Analysis phase. What are the issues associated with it? (8)
- Q.5** Write short notes on the following: (8+8)  
 (i) Model Driven Approach  
 (ii) Rapid Application Development
- Q.6** a. What is the role of Class Diagram in Object Oriented Modelling? (8)  
 b. Explain the role of Implementation phase in System Development. (8)
- Q.7** a. What are the four types of UML diagrams? (8)  
 b. Write in brief:  
 (i) System Maintenance  
 (ii) System Evaluation (8)
- Q.8** a. What are the phases or processes in User Interface Design? (8)  
 b. What are the principles of User Interface Design? (8)
- Q.9** a. What are the four common system conversion strategies? (8)  
 b. Explain the three levels of System Acceptance Test. (8)