

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

Time: 3 Hours

**June 2019**

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. The process of identifying, evaluating, and controlling what might go wrong in a project before it becomes a threat to the successful completion of the project or implementation of the information system.
- (A) Processor and memory (B) Risk management  
(C) Time and space (D) Data and space
- b. \_\_\_\_\_ help employees create and share documents that support day-to-day office activities.
- (A) Decision support systems (B) Expert systems  
(C) Communication systems (D) Office automation systems
- c. Cost-benefit analysis is performed to assess
- (A) Economic feasibility (B) Operational feasibility  
(C) Technical feasibility (D) All of these
- d. The main aim of software engineering is to produce
- (A) Program (B) Executable code  
(C) Within budget (D) Efficient Software
- e. Use of 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. Data store of accumulated system knowledge is called:
- (A) Repository (B) Program library  
(C) Database (D) Data warehouse

- g. The first step in SDLC is:  
 (A) Analysis (B) Design  
 (C) Problem/opportunity identification (D) Development and Documentation
- h. System development stage consists of \_\_\_\_\_ phases  
 (A) Six (B) Five  
 (C) Eight (D) Seven
- i. Which of the following is a function of the process step of data processing?  
 (A) Protect (B) Index  
 (C) Retrieval (D) Update
- j. Which project planning and scheduling has a critical path component?  
 (A) A Gantt Chart (B) A PERT diagram  
 (C) Time boxing (D) A PIM

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

- Q.2** a. Explain, what the consequences are if an information system lacks a system owner? (8)  
 b. Explain the different classes of Information System Applications (8)
- Q.3** a. What are the resemblance in system life cycle and system development methodology? (8)  
 b. Differentiate Sequential v/s Iterative development process. (8)
- Q.4** a. Explain various tasks for any two of the following:- (8)  
 (i) Requirements analysis phase  
 (ii) Logical design phase  
 (iii) Decision analysis phase  
 b. Discuss about different system analysis approaches. (8)
- Q.5** a. Explain the advantages provided by use-case modelling. (8)  
 b. What are the three components used in Use-Case diagram? What is their purpose? (8)
- Q.6** a. Explain the concept of VML diagram by taking suitable example. (5)  
 b. What considerations are involved in feasibility analysis? Differentiate between technical feasibility and behavioural feasibility. (8)  
 c. Compare and contrast Gantt and PERT charts. (3)

- Q.7** a. Give the overriding commandments of the user interface design (8)  
b. What do you mean by the term human factors? (8)
- Q.8** a. What is navigability? Please give an example of a navigability relationship (8)  
b. What are the two advantages to learning and using design patterns? (8)
- Q.9** a. What are the objectives of system maintenance? (4)  
b. Discuss the term Conversion to the new system in system analysis and design. (4)  
c. Write in brief: (8)  
(i) System Maintenance  
(ii) System Evaluation