



Name : .....

Roll No. : .....

Invigilator's Signature : .....

**CS/M.TECH (IT)/SEM-1/PGIT-105A/2012-13  
2012**

**INFORMATION SYSTEM DESIGN**

Time Allotted : 3 Hours

Full Marks : 70

*The figures in the margin indicate full marks.*

*Candidates are required to give their answers in their own words  
as far as practicable.*

**GROUP – A**

**( Multiple Choice Type Questions )**

1. Choose the correct alternatives for the following :

10 × 1 = 10

- i) ISO 14001 helps organizations to implement
  - a) Environmental Management
  - b) Quality management
  - c) Staff management
  - d) None of these.
- ii) Both ISO 9001 and ISO 1401 are
  - a) system standards      b) product standards
  - c) service standards      d) process standards.



- iii) Documentation is prepared
  - a) at every stage
  - b) at system design
  - c) at system analysis
  - d) at system development
  - e) none of these.
- iv) Enhancements, upgrades, and bug fixes are done during the ..... step in the SDLC.
  - a) Maintenance and Evaluation
  - b) Problem/Opportunity Identification
  - c) Design
  - d) Development and Documentation.
- v) Debugging is
  - a) creating program code
  - b) finding and correcting errors in the program code
  - c) identifying the task to be computerized
  - d) creating the algorithm.
- vi) Translating the problem statement into a series of sequential steps describing what the program must do is known as
  - a) coding
  - b) debugging
  - c) creating the algorithm
  - d) writing documentation.
- vii) ..... manages the system development, assign staff, manage the budget and reporting, and ensure that deadlines are met.
  - a) Project managers
  - b) Network engineers
  - c) Graphic designers
  - d) Systems analysts.



- viii) Hardware study is required
- to find out cost of computer system needed
  - to determine the type of computer system and software tools needed to meet the final system specification
  - to make sure that the system does not become obsolete
  - to find how to implement the system.
- ix) The role of a system analyst drawing up a requirements specification is similar to
- architect designing a building
  - a structural engineer designing a building
  - a contractor constructing a building
  - the workers who construct a building.
- x) Adding new features is typically performed during the ..... phase.
- implementation
  - need analysis
  - development
  - maintenance.

### GROUP - B

#### ( Short Answer Type Questions )

Answer any *three* of the following.  $3 \times 5 = 15$

- Define the terms 'Accreditation', 'Certification' & 'Registration'.
- What is the need for software quality assurance ?
- What are the advantages of use case diagram ?
- When an incremental model is used for software development ?
- Discuss about validation testing.



**GROUP – C**

**( Long Answer Type Questions )**

Answer any *three* of the following.  $3 \times 15 = 45$

7. a) What are the process characteristics ?  
b) Draw the process improvement cycle and discuss about its stages.  
c) What are the different classifications of processes ?  
 $6 + 2 + 3 + 4$
8. a) Write the difference between alpha & beta testing.  
b) What do you understand by risk management ? What are the processes for managing risk ?  
c) List out different types of software risks.  $3 + 3 + 4 + 5$
9. a) Define CASE. What is CASE environment & tool ?  
b) What is Upper CASE & Lower CASE ?  
c) What are the advantages and disadvantages of CASE ?  
 $2 + 2 + 2 + 2 + 5$
10. a) What is the difference between Quality Assurance ( QA ) and Quality Control ( QC ) ?  
b) What is a Quality Management Plan ( QMP ) ?  $5 + 5 + 5$
11. Write short notes on any *three* of the following :  $3 \times 5$   
a) SEI CMM  
b) RUP  
c) Software Analyst  
d) 4 Ps in Project Management  
e) Spiral Model.
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