	Uneah
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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:

 $10 \times 1 = 10$ 

- 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.

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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)	iv) Enhancements, upgrades, and bug fixes are during the step in the SDLC.						
	a)	a) Maintenance and Evaluation					
	b)	Problem/Opportunity Identification					
	c)	Design					
	d)	Development and Docu	ımen	tation.			
v)	Deb	bugging is					
	a)	creating program code					
	b)	finding and correcting	error	s in the program code			
	c)	c) identifying the task to be computerized					
	d)	creating the algorithm.					
vi)	sequ	ranslating the problem statement into a series of equential steps describing what the program must do known as					
	a)	coding					
	b)	debugging					
	c)	creating the algorithm					
	d)	writing documentation.					
vii)	staff	· ·	•	m development, assign reporting, and ensure			
	a)	Project managers	b)	Network engineers			
	c)	Graphic designers	d)	Systems analysts.			
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- viii) Hardware study is required
  - a) to find out cost of computer system needed
  - b) to determine the type of computer system and software tools needed to meet the final system specification
  - c) to make sure that the system does not become obsolete
  - d) to find how to implement the system.
- ix) The role of a system analyst drawing up a requirements specification is similar to
  - a) architect designing a building
  - b) a structural engineer designing a building
  - c) a contractor constructing a building
  - d) the workers who construct a building.
- x) Adding new features is typically performed during the ...... phase.
  - a) implementation
- b) need analysis
- c) development
- d) maintenance.

#### **GROUP - B**

### (Short Answer Type Questions)

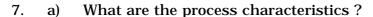
Answer any *three* of the following.  $3 \times 5 = 15$ 

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

#### **GROUP - C**

### ( Long Answer Type Questions )

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



- 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?

$$2 + 2 + 2 + 2 + 2 + 5$$

- 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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