THE OPEN UNIVERSITY OF SRI LANKA
DEPARTMENT OF MATHEMATICS AND COMPUTER SCIENCE
B.Sc. DEGREE PROGRAMME 2014/2015
CPU2140: SYSTEM ANALYSIS AND SOFTWARE ENGINEERING
NO BOOK TEST: 01

DURATION: **ONE HOUR ONLY (1 HOUR)**

Date: 12th July 2015 Time: **10.30 a.m. – 11.30 a.m.**

Answer **ALL** Questions in **Part I** and **Part II**. Write the answers on the question paper itself.

Part I

Explain each term in the space provided.

1. User Requirement
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2. System Requirement
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3. SRS
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4. Functional Requirements
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5. Nonfunctional Requirements
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Write the most suitable terms for the following statements in the given space.

6. A model that describes the overall behavior of a system. _____
7. A model that shows how data is processed at different stages in the system. _____
8. A model that models the behavior of the system in response to external and internal events. _____
9. A list that lists the names used in system models. That is the descriptions of the entities, relationships and attributes. _____
10. A model that describes the boundary of the system. _____

Indicate whether the following statements are TRUE or FALSE.

11. User requirements are defined using natural languages, tables and diagrams. _____

12. Software products may be developed for a particular customer or for the general market. _____

13. Efficiency of software means that it should not waste system resources. _____

14. Heterogeneity means the distributed systems should work on any hardware and software. _____

15. System engineering is a part of Software Engineering. _____

16. A software process model is an abstract representation of a process. _____

17. "Risk assessment and reduction risks" is used to reduce the risks. _____

18. In spiral development, risks are explicitly assessed and resolved throughout the process. _____

19. Verification and validation is intended to show that a system conforms to its specification and meets the requirements of the system customer. _____

20. An architectural model shows the principal sub-systems that make up a system. _____

Part II

21. Current trends in software engineering are moving from the waterfall model to iterative methods for large projects? What are we gaining and losing?

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22. How would you contrast *requirements* and *design*?

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23. Why should we use software engineering processes? Isn't it better to just start coding?

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24. *Dependability costs tend to increase exponentially as increasing levels of dependability are required.* Give two reasons.

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25. How are *milestone* and *deliverables* help in project planning?

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26. List down three (03) advantages of designing and documenting a system architecture?

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