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THE OPEN UNIVERSITY OF SRI LANKA
DEPARTMENT OF COMPUTER SCIENCE
B.Sc. DEGREE PROGRAMME 2016/2017
CPU2140: SYSTEM ANALYSIS AND SOFTWARE ENGINEERING
NO BOOK TEST: 01

DURATION: **ONE HOUR ONLY (1 HOUR)** Reg. No:.....

Date: **23rd September 2017** Time: **10.30am – 11.30am.**

Answer **ALL** Questions.
Write the answers on the question paper itself.

Indicate the accuracy of the following statements in the cage given in front of each statement. Write the letter "T" for correct statements and "F" for wrong statements. If the given statement is false give your justifications.

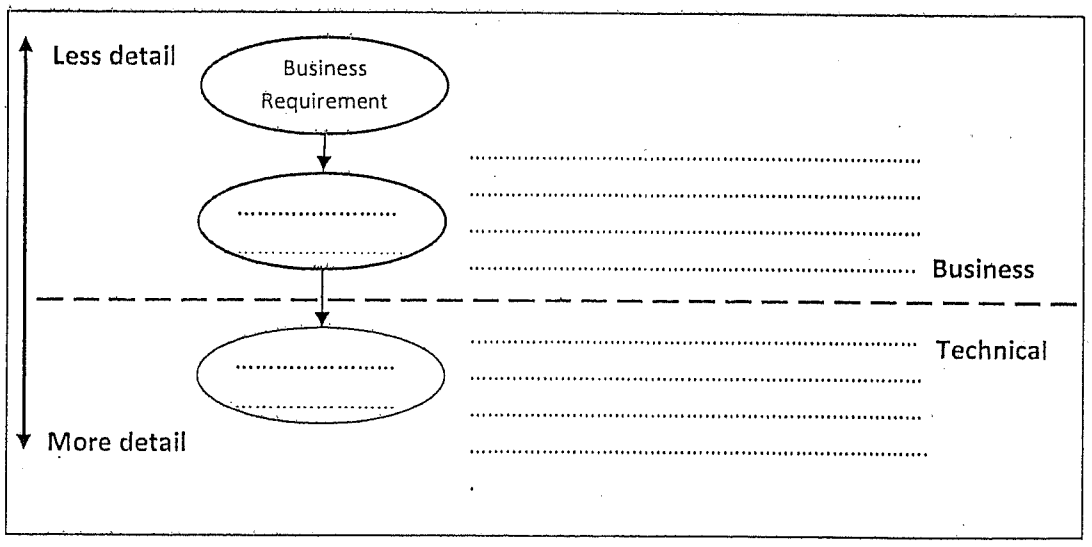
1. Software engineering is an engineering methodology focusing on developing high quality software systems cost effectively.	
2. Software is only a computer programme.	
3. For customized products, the specification is developed and controlled by the developing organization.	
4. The correct order of the software development process activities are; software evolution, software specification, software validation and software development.	
5. Systems evolution cost is higher than the system development cost in the "long time systems".	
6. The system is a usable one if the software does not waste system resource like memory.	
7. The challenges faced by software engineering are; intellectually property rights and computer misuse	
8. The failures of critical systems create serious problems and significant losses.	

9. A critical systems failure may occur in the hardware, software and operational failures.	
10. Four dimensions of dependability are; maintainability, efficiency, safety and security	

Identify the most suitable software process model for each description given below.
(Waterfall model, Rational Unified Process, Incremental model, Evolutionary development model, Spiral model, Exploratory development)

Description	Model
11. Specification, design, and implementation problems are often discovered only after implementation.	
12. Whole system is not delivered at all, though they have the full system specification with them. They deliver a part of the system at once.	
13. Risks are specifically recognized	
14. Specification, design and implementation are integrated	
15. System development is started with well understood parts of the requirements and with evolution new features are added/suggested by the customer.	
16. Dynamic perspectives, static perspectives and practice perspectives are considered.	

17. **Fill the blanks given in each circle using appropriate words. Write the explanations of them in the given space.**



18. Project manager has to minimize the task dependencies as much as possible in the schedules. Why?

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19. List the activities to be done in the risk management process

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20. Classify the following statements into **functional requirement** and **non-functional requirement.**

A system must send an email whenever a certain condition is met. .....

Emails should be sent within 12 hours from such an activity.....

21. Requirement validation is an activity of the requirement engineering process. Name three (03) types of checks that can be carried out in the activity of requirement validation.

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22. We can develop different models to show the system from different perspectives. Write three perspectives and their objectives in the table given below.

Perspective	Objective

23. "Risk decomposition" is a step that has to be carried out in developing a risk driven specification. Name a technique for Risk decomposition.

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24. Name two (02) reliability matrices.

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25. Name the two (02) generic control styles in software systems.

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