National University of Computer and Emerging Sciences, Lahore Campus

Course Name:	Software Engg. Technologies	Course Code:	CS527
Program:	MS (Computer Science)	Semester:	Spring 2020
Duration:	25 Mins.	Total Marks:	10
Paper Date:	18 Feb 2020	Weight	5%
Paper:		Page(s):	1
		Exam Type:	Quiz No. 1

Student : Name: Mohammad Ahmed   Roll No. 19L-1831   Section:

Instruction/Notes: Solve the exam on this question paper, no additional sheets will be provided. Do NOT use pencil to solve the exam.

Q No. 1. (5 Marks) What are 3 most important characteristics of a software product? Why do you think each characteristic is important, in your view?

(A)

Q. No. 2 (5 Marks) Identify 2 process related issues in traditional 'Waterfall' development lifecycle. Then discuss, providing arguments, how you'll overcome them if you face them.

Sol No 1:

The 3 important characteristic of software product is as following.

- Quality
- Reliability
- Security
- Design Methodology
- Development Team
- Support / Management

what is a Design Methodology?

Quality:

① Design Methodology must be chosen wisely as Tabler the completion of product development if there arises some changes as per market demand at the time of release then your model can adopt the changes easily

Example

Is this a s/w product characteristic? Adding a new feature as per market trend

② Development team should be expert or must have knowledge regarding the Domain in which they will work.

Examples

If you want to develop Android App hire Android app developer not web developers.

③ Support / Management is important to completely
2.5 deliver the product and to stay it long in market support is required

Sol -2

In my opinion the two process related issues ~~arises~~ mostly in <u>testing</u> and ~~changes~~ <u>development</u>.

① As we cannot test the product after every phase we can only test it when the product is completed

② During development if any changes are to make as per process so we have to go to Phase 1 of requirement gather and then Design and then
1.5 do it again

How will story board sefve a requirement?

Overcome

Firstly I will make a <u>throw-away</u> sketch Means I will make a story board of process when we are refing the requirement it could help us to get 100% requirement clears

Secondly I will not test every module at end I will try to test the modules that are not dependent so if any issue arises to can to know that this is in other

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Student : Name: Farhan Maqsood   Roll No. 19L-2674.   Section:

Instruction/Notes: Solve the exam on this question paper, no additional sheets will be provided. Do NOT use pencil to solve the exam.

Q No. 1. (5 Marks) What are 3 most important characteristics of a software product? Why do you think each characteristic is important, in your view?

⑥

Q. No. 2 (5 Marks) Identify 2 process related issues in traditional 'Waterfall' development lifecycle. Then discuss, providing arguments, how you'll overcome them if you face them.

Q No. #01 Answer:-

The most important 3 characteristics of a software product are:

(i) Design   (ii) Quality   (iii) Maintainability.

(i) Design:-

how is stated

design related

to UX/friendliness

By design i mean the software should have a good user friendly and easy to understand design so that the user interacting with it do not find the design difficult to understand and interact.

(ii) Quality:-

By quality i mean that the software product should maintain its quality as required by the user or the product owner. As the software product has quality it means it has met all the user requirement or it fulfill all the owner needs. And it good to stay that only quality product could stand in the market otherwise product will fail to achieve its goal in market.

(iii) Maintainability:- The 3rd very most important characteristic of a software product is its maintainability. As a product is easily maintainable it mean it can with-stand with change in market trend and is easily available for

being launched in the market.

Q No # 02 Answer:- The 2 process related issues in the waterfall model are as follows:

i Requirement specification:

ii can be faced in waterfall model the the requirements needed for developing the product are not clear that is the first issue that customer wanted. something else and we get something else from the customer. And all this happen because in waterfall there is very less involvement of customer so we should clearly focus on gathering the requirements correctly so the product may meet the customer need. After we are clear with requirements and sure that we get it what customer want then move to next stage.

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ii) Maintenability:-

The product should not be the final product. It should be able to upgrade in future if need to meet with the technology trends.

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Student : Name: Muhammad Abid   Roll No. 18L-3002   Section:

Instruction/Notes: Solve the exam on this question paper, no additional sheets will be provided. Do NOT use pencil t solve the exam.

Q No. 1. (5 Marks) What are 3 most important characteristics of a software product? Why do you think each characteristic is important, in your view?

(8)

Q. No. 2 (5 Marks) Identify 2 process related issues in traditional 'Waterfall' development lifecycle. Then discuss, providing arguments, how you'll overcome them if you face them.

Ans (1) Maintenance: Every software product evolve over the period of time. so there must be a change & release management needed to ensure the quality of the product.

(2) Within Time & Cost: Every s/w product must be developed within time & cost constraint and if both the constraints are slipped then the software development may lead to its failure

(3) Security & Efficiency: Software products need to have the optimized resource consumption in term of processors and secure for the end user data privacy

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Ans 2:   Issues in Waterfall Model.

① Too late Testing : Testing is done once the coding phase of the development methodology is completed which don't give much time to developer to fix the issues as ~~these~~ each activity is planned upfront. This may lead to serious quality issues of the product. We can have a proper code review inside the team to understand the implemented business processes to overcome the issues and minimize them before going towards the next phase.

② Customer Visibility : In waterfall customer has a less visibility to the end product as during the critical phases like analysis and design there is no visibility of how the product will work with respect to UI and UX which can be an element of surprise for the end user.
      We can have a prototype with the core features of the product to give an overall look of the business processes interaction to over come this issue.

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