



INSTITUTE OF AERONAUTICAL ENGINEERING (Autonomous)

Dundigal, Hyderabad - 500 043

COMPUTER SCIENCE AND ENGINEERING

ASSIGNMENT

Course Name	SOFTWARE ENGINEERING
Course Code	A50518
Class	III B. Tech I Semester
Branch	Computer Science and Engineering
Year	2017 – 2018
Course Faculty	Dr. N. Rajasekhar, Professor, Ms.K .Mayuri, Assistant Professor, Ms.M. Shiva Swetha Reddy, Assistant Professor, Ms.J.Hareesha, Assistant professor

OBJECTIVES

To meet the challenge of ensuring excellence in engineering education, the issue of quality needs to be addressed, debated and taken forward in a systematic manner. Accreditation is the principal means of quality assurance in higher education. The major emphasis of accreditation process is to measure the outcomes of the program that is being accredited.

In line with this, Faculty of Institute of Aeronautical Engineering, Hyderabad has taken a lead in incorporating philosophy of outcome based education in the process of problem solving and career development. So, all students of the institute should understand the depth and approach of course to be taught through this question bank, which will enhance learner's learning process.

S. No	Question	Blooms Taxonomy Level	Course Outcome
UNIT – I			
1	Describe “Software myth”? Discuss on various types of software myths and the true aspects of these myths?	Remember	2
2	Explain software Engineering? Explain the software engineering layers?	Understand	4
3	Explain in detail the capability Maturity Model Integration (CMMI)?	Understand	3
4	Describe with the help of the diagram discuss in detail waterfall model. Give certain reasons for its failure?	Understand	4
5	Explain briefly on (a) the incremental model (b) The RAD Model?	Understand	4
6	Explain the Spiral model in detail?	Understand	4
7	Explain unified process? Elaborate on the unified process work products?	Remember	4
8	Explain product and process are related?	Understand	4
9	Explain changing nature of software in detail?	Understand	4
10	Explain and contrast perspective process models and iterative process models?	Remember	2

11	Explain about the evolutionary process models?	Remember	2
UNIT – II			
1	Compare functional requirements with nonfunctional requirements?	Remember	2
2	Explain requirement engineering process?	Remember	2
3	Discuss briefly how requirement validation is done?	Remember	2
4	Discuss your knowledge of how an ATM is used, develop a set of usecases that could serve as a basis for understanding the requirements for an ATM system?	Understand	2
5	Describe four types of non-functional requirements that may be placed on a system. Give examples of each of these types of requirement?	Understand	4
6	Explain SRS document and explain along with its contents?	Understand	4
7	Explain interface specification in detail?	Understand	3
8	Discuss how requirements are elicited and validated in software project?	Remember	3
9	Discuss how feasibility studies are important in requirement engineering process?	Remember	3
10	Demonstrate class hierarchy for library by using interface specification?	Remember	3
UNIT – III			
1	Explain a two level process? Why should system design be finished before the detailed design, rather starting the detailed design after the requirements specification? Explain with the help of a suitable example	Understand	3
2	Discuss briefly the following fundamental concepts of software design: i) Abstraction, ii) Modularity, iii) Information hiding	Understand	3
3	Explain briefly the following: i) Coupling between the modules, ii) The internal Cohesion of a module	Understand	3
4	Explain software design? Explain data flow oriented design?	Understand	3
5	Explain the goals of the user interface design?	Remember	4
6	Discuss briefly about the golden rules for the user interface design?	Remember	4
7	Discuss architectural styles and patterns?	Remember	4
8	Explain with a neat diagram of architectural design?	Understand	3
9	Explain the guide lines of component level design?	Understand	4
10	Describe the way of conducting a component level design?	Understand	4
UNIT – IV			
1	Explain about the importance of test strategies for conventional software?	Remember	3
2	Discuss black box testing in a detailed view?	Remember	3
3	Compare black box testing with white box testing?	Understand	3
4	Compare validation testing and system testing?	Remember	3
5	Discuss software quality factors? Discuss their relative importance?	Understand	3
6	Explain about Product metrics?	Understand	4
7	Explain in detail about Software Measurement?	Remember	4
8	Explain strategic approach to software testing	Understand	4
9	Describe test strategies for conventional software	Remember	3
10	Discuss a framework for product metrics	Understand	3

UNIT – V			
1	Explain about software risks?	Remember	3
2	Elaborate the concepts of Risk management Reactive vs Proactive Risk strategies?	Understand	3
3	Explain about RMMM Plan?	Remember	3
4	Explain about Quality concepts?	Understand	3
5	Explain software quality assurance?	Understand	3
6	Explain about formal technical reviews?	Understand	3
7	Explain in detail ISO 9000 quality standards?	Understand	4
8	Explain six sigma for software engineering?	Remember	4
9	Explain quality management with their terms?	Understand	3
10	Demonstrate risk identification?	Remember	3

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