

**CS605**  
**Final Term Examination – Spring 2006**  
Time Allowed: 150 Minutes

**Question No. 1**

**Marks : 1**

With respect to Software Refactoring, what is meant by “move method” and why it is useful?

**Question No. 2**

**Marks : 3**

Three categories of risks are

1. business risks, personnel risks, budget risks
2. project risks, technical risks, business risks
3. planning risks, technical risks, personnel risks
4. management risks, technical risks, design risks

**Question No. 3**

**Marks : 3**

Compute the SPI, Schedule variance and Percent complete for the situation given below.

Assume you are a software project Manager and that you have been asked to compute earned value statistics for a small software project. The project has 56 planned work tasks that are estimated to require 582 persons-days to complete. At the time that you have been asked to do the earned value analysis. 5 tasks have been completed. However the project schedule indicates that 8 tasks should have been completed. The following schedule data (in person-days) are available.

Task	Planned effort	Actual effort
1	12	12
2	15	11
3	13	17
4	8	9
5	10	9
6	18	----



1. Classical life cycle model
2. Fountain model
3. Spiral model
4. Chaos model

**Question No. 9**

**Marks : 1**

**What is the difference between SCM audit and a formal technical review?**

**Question No. 10**

**Marks : 3**

**Doubling the size of your software project team is guaranteed to cut project completion time in half.**

1. T
2. F

**Question No. 11**

**Marks : 3**

**What is the role of risk analysis in evolutionary process models like the spiral model?**

**Question No. 12**

**Marks : 10**

**The number of people required for a software project is determined**

1. after an estimate of the development effort is made.
2. after an estimate of the development effort is made.
3. from an assessment of the technical complexity of the system.
4. all of the given options

**Question No. 13**

**Marks : 1**

**In terms of the Capability Maturity Model, what level would you describe the current situation as being? Justify your answer.**

The owner of the software games company: HotFusion Games has hired you to advise their company. 18 months ago, their game “Powers and Perils” became an international success, and since then their software development group has grown from 5 people to 50 people. Unfortunately, their sequel to the first game “Powers and Perils II” is now six months behind schedule and the owner is quite bewildered at this. After examining the situation at HotFusion Games, you realize that while the organization is equipped with some very capable software developers, they have never established any formal process in their software development.

**Question No. 14**

**Marks : 1**

Which of these benefits can be achieved when software is restructured?

1. higher quality programs
2. reduced maintenance effort
3. software easier to test
4. all of the given options

**Question No. 15**

**Marks : 1**

The first step in project planning is to

1. determine the budget.
2. select a team organizational model.
3. determine the project constraints.
4. establish the objectives and scope.

**Question No. 16**

**Marks : 1**

Using this table information and this phase index distribution, compute the overall error index for the organization. Assume PS= 100.

An organization uses a four step software engineering process in which the phase index of each step is given below:

Step	Phase Index
1	2
2	4
3	3
4	5

(Hint: The Formula for Error index is  $EI = \sum (i * PI_i) / PS$ )

Where:

**i** is the number of step

**PI** is the Phase index)

**Question No. 17**

**Marks : 1**

The goal of quality assurance is to provide management with the data needed to determine which software engineers are producing the most defects.

1. True
2. False