CS 3009: Software Engineering (A)

Quiz 2

Time: 20 minutes   Max Marks: 20   Roll No. _____

Q1.   **10 Marks**
Relate the concepts of Column 1 with concepts of Column 3. Write the most appropriate match in 'Correct Match' column. <u>Write alphabet only</u> and not the complete entry. Do not repeat the alphabet.

Note: There are extra mismatched entries in Column 3 that do not relate with any entry of column 1. Each entry in column 1 must have a match from column 3.

Entries	Correct Match	Mismatched Entries
Testing and Development Phases' Correspondence	B	A. A Science Fiction Film
Spike solutions, CRC Cards	M	B. V-Model
Four Phases, OO, iterations, mini projects	I/N	C. RAD Model
Four phases, Determine and Evaluate Risks, evolutionary	E	D. Waterfall Model
Requirements well understood, stable and complete	D	E. Spiral Model
Requirements Unclear	H	F. Framework activities
Requirements Well Understood, scope constrained, short development cycle, sufficient human resources	C	G. Incremental Model
Short cycle time, subset of requirements well understood, scope of the project largely known, core product first	G	H. Prototyping Model
Communication, planning, modeling, construction	F	I. Unified Process
Inception	N/I	J. Scrum
		K. Risky Model
		L. Umbrella activities
		M. XP
		N. Unified Process

Q2.   **5+5 = 10 Marks**
List the process model that you think will be most appropriate for the following situations. Also, list your reason(s) for choosing a particular model. If you just list the process model without mentioning the reason(s), you will not be awarded any marks.

   a.   An existing software needs to be developed in a newer and better technology and your company has been assigned this task. The software has been running successfully for a few years and does not require any major changes in its functionalities in the newer technology i.e. same functions that are available in the current version will also exist in the updated version.

Process Model: Waterfall

Reason(s):
- Requirements complete
- Requirements clear
- Requirements stable
- No explicit mention of quick review/feedback

b. The management team of Asian airline Inc. is frustrated by long-running projects that failed to deliver results in the expected timeframe. In fact, many projects in the IT portfolio span multiple years in length and still fail to satisfy important functional requirements. Management also feels that the airline needed to be more responsive to the marketplace in general. So they have hired you to achieve the following:
   1. Teams can adapt to changing requirements while maintaining a clear focus on the project vision.
   2. Projects should deliver the most important features sooner, and provide better project visibility to the customer who is available on daily basis.

Process Model: Scrum

Reason(s):
- More responsive to the marketplace indicates the need of a development team that is more responsive to the changing requirements – suggesting frequent changes in requirements
- Deliver the most important features sooner indicates the need to complete the high priority requirements first – scrum keeps a product backlog that contains the prioritized list of requirements
- Customer is available on daily basis and can work as a team member