| Name: |
| Enrolment No: |

UNIVERSITY OF PETROLEUM AND ENERGY STUDIES

End Semester Examination, May 2020

Course: Software Engineering and Project Management   Semester: IV

Course Code: CSEG 2008   Time: 2 Hrs.

Programme: B Tech (CSE+IoT)   Max. Marks: 100

Instructions: Attempt All Questions

MC	A process of software development where requirements are broken down into multiple standalone modules of software development cycle	Waterfall model	incorrect	RAD model	incorrect	Evolutionary process model	incorrect	Incremental process model	correct
MC	In RAD model, information gathered in business modeling phase is reviewed and analyzed to form sets of data objects vital for business in	business modeling	incorrect	process modeling	incorrect	data modeling	correct	deployment modeling	incorrect

Type	Question	Option A		Option B		Option C		Option D	
MC	Developer often make implementation compromises in order to get a prototype working	constantly	incorrect	slowly	incorrect	quickly	correct	randomly	incorrect
MC	Which of the following is a phase of RAD model?	Business modelling	incorrect	Data modelling	incorrect	Application generation	incorrect	All of the above	correct
MC	A cross life-cycle activity of system development is	Data modelling	incorrect	Fact finding	correct	Prototyping	incorrect	Data Flow Diagram modelling	incorrect
MC	Which model is most popular for student's small projects?	Waterfall model	correct	Spiral model	incorrect	Quick and fix model	incorrect	Prototyping model	incorrect
MC	Which is not a software life cycle model?	Waterfall model	incorrect	Spiral model	incorrect	Capability maturity model	correct	Prototyping model	incorrect

MC	SRS stands for	Software requirements solution	incorrect	System requirements specification	incorrect	Software requirements specification	correct	none of given	incorrect
MC	Which phase is not available in software life cycle?	Coding	incorrect	Testing	incorrect	Maintenance	incorrect	Abstraction	correct
MC	The development is supposed to proceed linearly through the phase in	Spiral model	incorrect	Waterfall model	correct	Prototyping model	incorrect	None of the above	incorrect
MC	Project risk factor is considered in	Spiral model	correct	Iterative model	incorrect	Prototyping model	incorrect	Waterfall model	incorrect
MC	A project has expenditure of 180 lacs and the revenues at the end of each year are 64, 80, 100, 125 and 105 lacs. The Payback period is estimated as ____ years	2.45	**Incorrect**	2.54	**Incorrect**	2.28	**Incorrect**	**2.36**	**Correct**

Type	Question								
			c t			c t		c t	
M C	A system has 15 user inputs (Average), 10 user outputs (High), 5 user inquiries (High), 8 internal logical files (Low) and 4 external interface (High). The UFP Count is ____	236	Incorrect	248	Incorrect	244	Incorrect	**256**	**Correct**
M C	A project has expenditure of 180 lacs and the revenues at the end of each year are 64, 80, 100, 125 and 105 lacs. The NPV assuming 12.5 percent discount rate is _____ lacs	141.89	Incorrect	143.37	Incorrect	**146.63**	**Correct**	151.89	Incorrect
M C	Assume that the size of an organic type software product has been estimated to be 32,000 lines of source code. Assume that the average salary of software engineers be Rs. 15,000/- per month. Determine the effort required to develop the software product and the nominal development time.From the basic COCOMO estimation formula for organic software:From the basic COCOMO estimation formula for organic software: Nominal Development Time is	14 months	Correct	12 months	Incorrect	15 months	Incorrect	19 months	Incorrect
M C	Project A is to be a 32,000 LOCsemi-detached software. It is in a mission critical area, so the reliability is high (RELY=high=1.15). Then calculate:EFFORT	268	Incorr	168	**Incorr**	167	Corre	267	Incorr

	Question	Value	Status	Value	Status	Value	Status	Value	Status
M C	Project A is to be a 32,000 DSI semi-detached software. It is in a mission critical area, so the reliability is high (RELY=high=1.15). Then calculate:SCHEDULE	14 months	Incorrect	12 months	Incorrect	15 months	Correct	19 months	Incorrect
M C	Project A is to be a 32,000 DSI semi-detached software. It is in a mission critical area, so the reliability is high (RELY=high=1.15). Then calculate:Productivity	192	Correct	178	Incorrect	191	Incorrect	198	Incorrect
M C	A company wants to start a Project and to calculate its feasibility,The Projects uses the model as an equation to estimate the desired values such as cost, time, effort, etc. They all depend on the same variable used as predictor (say, size). mind Company deduced that the project they are using is of size 500 KLOC, Based on the data given calculate EFFORT	453.0751	Correct	553.0751	Incorrect	653.0751	Incorrect	463.0751	Incorrect
M C	A company wants to start a Project and to calculate its feasibility,The Projects uses the model as an equation to estimate the desired values such as cost, time, effort, etc. They all depend on the same variable used as predictor (say, size). mind Company deduced that the project they are using is of size 500 KLOC, Based on the data given if Company need to calculate what will be the documentation size	3812.407	Incorrect	6757.128	Incorrect	8164.82	Correct	9012.765	Incorrect
M C	A company wants to start a Project and to calculate its feasibility,The Projects uses the model as an equation to estimate the desired values such as cost, time, effort, etc. They all depend on the same variable used as predictor (say, size). mind Company deduced that the project	565.12	Incorr	45.890	Incorr	23.1468	Correct	314.765	Incorr

	Question	Option A		Option B		Option C		Option D	
	they are using is of size 500 KLOC, Based on the data given what will be the duration of the project		ect		ect				ect
MC	A company wants to start a Project and to calculate its feasibility,There is another method which states that there is some models which are often based on equation (i), they actually depend on several variables representing various aspects of the software development environment, for example method used, user participation, customer oriented changes, memory constraints, etc.Company deduced that the project they are using is of size 500 KLOC, Based on the data given Effort required is	3321.875	Incorrect	1486.162	Correct	1678.345	Incorrect	2345.1234	Incorrect
MC	A company wants to start a Project and to calculate its feasibility,There is another method which states that there is some models which are often based on equation (i), they actually depend on several variables representing various aspects of the software development environment, for example method used, user participation, customer oriented changes, memory constraints, etc.Company deduced that the project they are using is of size 500 KLOC, Based on the data given what will be the duration of the project	67.1234	Incorrect	89.5678	Incorrect	651.8901	Incorrect	38.4072	Correct
MC	Which of the following is not included in SRS ?	Performance	incorrect	Functionality	incorrect	Design solutions	correct	External Interfaces	incorrect
MC	The SRS document is also known as _____ specification.	black-box	incorrect	white-box	incorrect	grey-box	incorrect	none of the mentioned	incorrect
MC	What kind of approach was introduced for elicitation and modelling to give a functional view of the system?	Object Oriented	inc	Use Cases (by Jacobson)	corr	Fusion (by	inc	Object Modeling	inc

MC	Question	A		B		C		D	
		Design (by Booch)	correct		ect	Coleman	correct	Technique (by Rumbaugh)	correct
MC	Why is Requirements Elicitation a difficult task?	Problem of scope	incorrect	Problem of understanding	incorrect	Problem of volatility	incorrect	All of the mentioned	correct
MC	How many Scenarios are there in elicitation activities?	One	incorrect	Two	incorrect	Three	incorrect	Four	correct
MC	Which of the following is not a diagram studied in Requirement Analysis?	Use Cases	incorrect	Entity Relationship Diagram	incorrect	State Transition Diagram	incorrect	Activity Diagram	correct
MC	The requirements that result from requirements analysis are typically expressed from one of three perspectives or views.WhaT is that perspective or view?	Developer	incorrect	User	incorrect	Non-Functional	incorrect	Physical	correct
MC	Who controls the FAST (Facilitated Application Specification Techniques) meeting?	System Analyst	inco	Scribe	inco	Facilitator	corr	Manager	inco

Type	Question	Option A		Option B		Option C		Option D	
			rr e ct		rr e ct		e ct		rr e ct
MC	"Consider a system where, a heat sensor detects an intrusion and alerts the security company." What kind of a requirement the system is providing?	Functional	correct	Non-Functional	incorrect	Known Requirement	incorrect	None of the mentioned	incorrect
MC	Which of the following statements about SRS is/are true? I SRS is written by customer ii SRS is written by a developer iii SRS serves as a contract between customer and developer	Only i is true	incorrect	Both ii and iii are true	incorrect	All are true	correct	None of the mentioned	incorrect
MC	Use case descriptions consists of interaction among which of the following ?	Product	incorrect	Use case	incorrect	Actor	incorrect	Product & Actor	correct
MC	Which statements are considered correct in reference to use case diagram ?	A scenario is an interaction between product and particular interaction	incorrect	A use case diagram represent a product's use cases and actors involved in each use case	incorrect	All of the mentioned	correct	None of the mentioned	incorrect
MC	In dataflow diagram process is represented by a _____	circle	correct	rectangle	incorrect	triangle	incorrect	parallelogram	incorrect

Type	Question	Option A		Option B		Option C		Option D	
			ect		ect		ect		ect
MC	A Data Flow Diagram (DFD) is composed of which elements?	Data sources and destinations	incorrect	Data flows	incorrect	Transformation processes	incorrect	All of the above	correct
MC	Many documentation tools are available to explain how a system works. Which tool provides a graphical description of the sources and destinations of data as well as data flow within the organization and the processes that transform and store that data?	Data flow diagram	correct	Document flowchart	incorrect	Program flowchart	correct	System flowchart	incorrect
MC	Which of the following is not a guideline for drawing a Data Flow Diagram (DFD)?	Develop a context diagram	incorrect	Subdivide the DFD	incorrect	Determine system boundaries	incorrect	Display the physical location of data files	correct
TF	SRS is modifiable as the user requirements keep on changing	TRUE	FALSE						
TF	There are three main classifications of risks which can affect a software project: 1: Project risks 2: Technical risks 3: Business risks	TRUE	FALSE						
MC	Who can then check which risks from each class are relevant to the project.	project manager	correct	product manager	inc	sprint manager	inc	risk manager	inc

			e ct		o rr e ct		o rr e ct		o rr e ct
MC	Not having enough number of developers can delay the project delivery.This type of risk belongs to	known-unknown risk	i n c o rr e ct	known-known risk	c o rr e ct	unkno wn risk	i n c o rr e ct	known risk	i n c o rr e ct
MC	This is a fact known to the project team however whether the client has communicated all the information properly or not is unknown to the project	known-unknown risk	c o rr e ct	known-known risk	i n c o rr e ct	unkno wn risk	i n c o rr e ct	known risk	i n c o rr e ct
MC	The standard is divided into four parts which addresses, respectively, the following subjects: quality model; external metrics; internal metrics; and quality in use metrics.	ISO	c o rr e ct	MC CALL	i n c o rr e ct	both of given	i n c o rr e ct	none	i n c o rr e ct
TF	The ISO 9126 software quality model identifies 4 main quality characteristics, namely:Functionality, Reliability, Usability, Portability	FALSE	T R U E						
MC	The framework which is used to analyse the approach and techniques followed by any organization to develop a software product.	CMM	c o rr e ct	ISO	i n c o rr e ct	MC CALL	i n c o rr e ct	All of the mention ed	i n c o rr e ct

	Question	Option A		Option B		Option C		Option D	
MC	The system of identifying addressing and eliminating these problems before they can damage the project is called _____	project management	incorrect	testing	incorrect	quality management	incorrect	risk management	correct
MC	Risk management activities in broad categories include	risk assesment and risk control	correct	ridk identification and risk avoidance	incorrect	risk prioritization and risk elimination	incorrect	risk identification and risk resolution	incorrect
MC	Planning risk management involves	Avoid risk	incorrect	Reduce risk	incorrect	Transfer risk	incorrect	All of the mentioned	correct
MC	Risk associated with development team profesionals is called	Technical risk	incorrect	People risk	correct	Organization risk	incorrect	software risk	incorrect
MC	The testing technique in which functionality of the Application Under Test (AUT) is tested without looking at the internal code structure, implementation details and knowledge of internal paths of the software is called	functional testing	incorrect	structural testing	incorrect	Blackbox testing	correct	glass box testing	incorrect

MC	Black box testing type is related to the functional requirements of a system; it is done by software testers.	functional testing	correct	structural testing	incorrect	technical testing	incorrect	glass box testing	incorrect
MC	_____is done after code fixes, upgrades or any other system maintenance to check the new code has not affected the existing code.	Maintainance testing	incorrect	Regression testing	correct	structure testing	incorrect	risk testing	incorrect
MC	Regression Testing is a type of	Black box testing	correct	White Box Testing	incorrect	function testing	incorrect	non-functional testing	incorrect
MC	EQP and BVA belongs to	Black box testing	correct	White Box Testing	incorrect	function testing	incorrect	non-functional testing	incorrect
MC	Testing of a software solution's internal structure, design, and coding. In this type of testing, the code is visible to the tester is called	Black box testing	incorrect	White Box Testing	correct	function testing	incorrect	non-functional testing	incorrect

	Question								
MC	Statement coverage and Branch Coverage belongs to	Black box testing	incorrect	White Box Testing	correct	function testing	incorrect	non-functional testing	incorrect
MC	Acting as project leader, Liaison with stakeholders, Managing human resources, Setting up reporting hierarchy etc. belongs to which category of roles	People management	correct	product management	incorrect	Organization management	incorrect	Project Management	incorrect
MC	Defining and setting up project scope,Act as spoke person, Managing project management activities, Monitoring progress and performance,Risk analysis at every phase,Take necessary step to avoid or come out of problems. All these belong to which category of roles of Project manager	People management	incorrect	product management	incorrect	Organization management	incorrect	Project Management	correct