Name: **Enrolment No:**	UPES UNIVERSITY WITH A PURPOSE

UNIVERSITY OF PETROLEUM AND ENERGY STUDIES
End Semester Examination, July 2020

Course: Software Engineering and Project Management **Semester: IV**
Program: B.Tech DevOps **Time:**02 hrs.

Course Code:CSEG2008 **Max. Marks:** 100

Instructions: Use of calculators and other electronic devices is prohibited

SN	Type	Options								
1	MC	Software consists of _____	Set of instructions + operating procedures	**Incorrect**	Programs + documentation + operating procedures	**Correct**	Programs + hardware manuals	**Incorrect**	Set of Programs	**Incorrect**

2	MC	What are the characteristics of software?	Software can be custom built or custom build	**Incorrect**	Software doesn't " wear out ".	**Incorrect**	**All of the mentioned**	**Correct**	Software is developed or engineered; it is not manufactured in the classical sense.	**Incorrect**
3	MC	Type of program which is designed for users to customize the program is _____	shareware	**Incorrect**	macros	**Incorrect**	open source software	**Incorrect**	**freeware**	**Correct**
4	MC	What often-false assumption does the waterfall model made about requirements specifications?	specifications are predictable	**Incorrect**	**all of the mentioned**	**Correct**	specifications are stable	**Incorrect**	specifications have low change rates	**Incorrect**
5	MC	The waterfall model for software development is _____	**A reasonable approach when requirements are well defined**	**Correct**	A good approach when a working program is required quickly	**Incorrect**	The best approach to use for projects with large development teams	**Incorrect**	An old fashioned model that is rarely used any more.	**Incorrect**

6	MC	The incremental model of software development is _____	An old fashioned model that is rarely used any more.	**Incorrect**	The best approach to use for projects with large development teams	**Incorrect**	A reasonable approach when requirements are well defined	**Incorrect**	**a good approach when a working core product is required quickly**	**Correct**
7	MC	The prototyping model of software development is _____	A reasonable approach when requirements are well defined	**Incorrect**	The best approach to use for projects with large development teams	**Incorrect**	**A useful approach when a customer cannot define requirements clearly**	**Correct**	A risky model that rarely produces a meaningful products	**Incorrect**
8	MC	The spiral model of software development	Ends with the delivery of the software product	**Incorrect**	**include project risk evaluation during each iteration**	**Correct**	Is more chaotic than the incremental model	**Incorrect**	All of the mentioned	**Incorrect**

9	MC	The rapid application development model is _____	**a high speed adaption of the linear sequential model**	**Correct**	another name for component-based development	**Incorrect**	A useful approach when a customer cannot define requirements clearly	**Incorrect**	All of the mentioned	**Incorrect**
10	MC	Which of the following are advantages of iterative model?	Early revenue generation	**Incorrect**	Simpler to manage	**Incorrect**	**All of the mentioned**	**Correct**	Early feedback	**Incorrect**
11	MC	Which of these factors complicate decision making by global software teams	**All of the mentioned**	**Correct**	complexity of the problem	**Incorrect**	different views of the problem	**Incorrect**	risk associated with the decision	**Incorrect**
12	MC	The system specification describes the	time required for system simulation	**Incorrect**	element software architecture	**Incorrect**	**Function, performance and constraints of a computer based system**	**Correct**	implementation of each allocated system	**Incorrect**
13	MC	Which of the following is not a UML diagram used creating a system analysis model?	state diagram	**Incorrect**	class diagram	**Incorrect**	activity diagram	**Incorrect**	**dataflow diagram**	**Correct**

14	MC	The result of the requirements engineering task is an analysis model that defines which of the following problem domain?	information	**Incorrect**	**all of the mentioned**	**Correct**	functional	**Incorrect**	behavioral	**Incorrect**
15	MC	The entity relationship diagram	depicts function that transform the data flow	**Incorrect**	**depicts relationship between data objects**	**Correct**	indicates how data are transformed by the system	**Incorrect**	indicates system reractions to external events	**Incorrect**
16	MC	Which is not a characteristic of a good SRS?	Correct	**Incorrect**	**Brief**	**Correct**	Complete	**Incorrect**	Consistent	**Incorrect**
17	MC	After SRS, we may like to estimate	Size	**Incorrect**	Cost	**Incorrect**	**All of the mentioned**	**Correct**	Development	**Incorrect**
18	MC	The weak entities are represented in UML diagrams by using aggregations called	**qualified aggregation**	**Correct**	qualified segregation	**Incorrect**	non qualified segregation	**Incorrect**	non qualified aggregation	**Incorrect**
19	MC	In UML diagrams, the relationship between object and component parts is represented	ordination	**Incorrect**	**aggregation**	**Correct**	segregation	**Incorrect**	increment	**Incorrect**
20	MC	SRS document is also known as _____ specification.	white box	**Incorrect**	grey box	**Incorrect**	**black box**	**Correct**	blue box	**Incorrect**
21	MC	Which of the following is a part of SRS?	Cost	**Incorrect**	Delivery Schedule	**Incorrect**	Staffing	**Incorrect**	**Design constraints**	**Correct**

22	MC	Which one is not the part of SRS?	Performance	**Incorrect**	Design solutions	**Correct**	Functionality	**Incorrect**	External Interfaces	**Incorrect**
23	MC	The Data Flow Diagram(DFD) shows	flow of data	**Incorrect**	the process	**Incorrect**	**All of the mentioned**	**Correct**	the area where they are stored	**Incorrect**
24	MC	In DFD, an originator or reciever of that data is usually designated by	a circle	**Incorrect**	an arrow	**Incorrect**	squarebox	**Incorrect**	**rectangle**	**Correct**
25	MC	Which of the following is not desired in a good SRS document	non functional requirements	**Incorrect**	**algorithms for software implementation**	**Correct**	functional requirement	**Incorrect**	goals of implementation	**Incorrect**
26	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**	System Flowchart	**Incorrect**	Document Flowchart	**Incorrect**	Program Flowchart	**Incorrect**
27	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**

28	MC	In RAD model, information gathered in business modeling phase is reviewed and analyzed to form sets of data objects vital for business in	Buisness Modeling	**Incorrect**	Process Modeling	**Incorrect**	**Data modeling**	**Correct**	Deployment Modeling	**Incorrect**
29	MC	The principle of Albrecht's function point analysis (FPA) is that a system is decomposed into functional units. How many functional units are there in it?	1	**Incorrect**	**5**	**Correct**	3	**Incorrect**	4	**Incorrect**
30	MC	Internal logical files and external interface files are	**Data Function type**	**Correct**	Transactional Function type	**Incorrect**	Non Functiona type	**Incorrect**	None of the mentioned	**Incorrect**
31	MC	Consider a with the following functional units: Number of user inputs=60, Number of user outputs = 40, Number of user enquiries=35, Number of user files =6, Number of external interfaces= 04; What will be the value of UFP by considering that all CAF and weighting factors are average?	628	**Incorrect**	1028	**Incorrect**	**668**	**Correct**	776	**Incorrect**

32	MC	Consider a with the following functional units: Number of user inputs=60, Number of user outputs = 40, Number of user enquiries=35, Number of user files =6, Number of external interfaces= 04; What will be the value of FP by considering that CAF is 1.07 and weighting factors are average?	**715**	**Correct**	672	**Incorrect**	772	**Incorrect**	615	**Incorrect**
33	MC	An application has the following : 20 low external inputs, 12 high external inputs , 10 low internal logical files, 15 high external interface files and 12 average external inquiries and the value of CAF is 1.10. What will be the value of unadjusted function point?	452	**Incorrect**	462	**Incorrect**	**412**	**Correct**	512	**Incorrect**
34	MC	An application has the following : 20 low external inputs, 12 high external inputs , 10 low internal logical files, 15 high external interface files and 12 average external inquiries and the value of CAF is 1.10. What will be the value of function point?	497	**Incorrect**	597	**Incorrect**	557	**Incorrect**	**453**	**Correct**

35	MC	The number of people required for a software project is determined	by the size of project budget	**Incorrect**	**after an estimate of the development effort is made**	**Correct**	from an assesment of the technical complexity of the system	**Incorrect**	All of the mentioned	**Incorrect**
36	MC	Suppose that a project was estimated to be 300 KLOC. Calculate the effort for organic mode.	1295.31	**Incorrect**	**957.6**	**Correct**	1395.31	**Incorrect**	857.6	**Incorrect**
37	MC	Suppose that a project was estimated to be 300 KLOC. Calculate the development time for organic mode.	38.07	**Incorrect**	**33.94**	**Correct**	48.07	**Incorrect**	43.94	**Incorrect**
38	MC	A project size of 200 KLOC is to be developed. Software development team has average experience on similar type of projects.The project schedule is not very tight. Calculate the average staff size of the project.	32.67	**Incorrect**	34.44	**Incorrect**	**38.67**	**Correct**	43.26	**Incorrect**
39	MC	A project size of 200 KLOC is to be developed. Software development team has average experience on similar type of projects.The project schedule is not very tight. Calculate the productivity of the project.	**176**	**Correct**	136	**Incorrect**	156	**Incorrect**	186	**Incorrect**

40	MC	In Intermidiate COCOMO Model, complexity of the product is a part of	hardware attributes	**Incorrect**	**product attributes**	**Correct**	personal attributes	**Incorrect**	project attributes	**Incorrect**
41	MC	In Intermidiate COCOMO Model, programming language experience of the product is a part of	hardware attributes	**Incorrect**	product attributes	**Incorrect**	personal attributes	**Correct**	project attributes	**Incorrect**
42	MC	A new project with estimated 400 KLOC embedded system has to be developed. Developers of low quality but a lot of experience with the programming language. What is the value of effort estimation?	3528 PM	**Incorrect**	5528 PM	**Incorrect**	3458 PM	**Incorrect**	**4528 PM**	**Correct**
43	MC	A company projecting revenue of 64 lacs in first year and the revenue is going to increase by 25% every year for the next 3 years in succession, after which revenue decreases by 20 lacs in the fifth year and thus will be closed after 5 years. The fixed initial investment for the project is 120 lacs and working capital requirement is 60 lacs. Compute payback for the project .	3.553 years	**Incorrect**	3.853 years	**Incorrect**	**2.853 years**	**Correct**	2.553 years	**Incorrect**

44	MC	A company projecting revenue of 64 lacs in first year and the revenue is going to increase by 25% every year for the next 3 years in succession, after which revenue decreases by 20 lacs in the fifth year and thus will be closed after 5 years. The fixed initial investment for the project is 120 lacs and working capital requirement is 60 lacs. Compute ROI for the project .	43.67%	**Incorrect**	22.67%	**Incorrect**	33.67%	**Incorrect**	**32.67%**	**Correct**
45	MC	A company projecting revenue of 64 lacs in first year and the revenue is going to increase by 25% every year for the next 3 years in succession, after which revenue decreases by 20 lacs in the fifth year and thus will be closed after 5 years. The fixed initial investment for the project is 120 lacs and working capital requirement is 60 lacs. Compute NPV assuming 12.5% discount rate for the project .	Rs. 144633000	**Incorrect**	**Rs. 14663000**	**Correct**	Rs. 134633000	**Incorrect**	Rs. 144666000	**Incorrect**

46	MC	One of the most important attributes for software product metric is that it should be	**easy to compute**	Correct	qualitative in nature	**Incorrect**	reliable over time	**Incorrect**	widely applicable	**Incorrect**
47	MC	Which of the following is comes under indirect measure of product?	Complexity	**Incorrect**	Reliability	**Incorrect**	Quality	**Incorrect**	**All of the mentioned**	Correct
48	MC	Usability can be measured in terms of	Time required to become moderately efficient in system usage	**Incorrect**	Intellectual skill to learn the system	**Incorrect**	**All of the mentioned**	Correct	Net increase in productivity	**Incorrect**
49	MC	What is the normal order of activities in which traditional software testing is organized?	integration testing, system testing, unit testing , validation testing	**Incorrect**	**unit testing, integration testing, validation testing, system testing**	Correct	unit testing, validation testing, system testing, integration testing	**Incorrect**	validation testing, system testing, unit testing, integration testing	**Incorrect**
50	MC	During unit testing, which of the following need to be assessed?	**error handling & execution path**	Correct	code stability	**Incorrect**	error handling only	**Incorrect**	execution path only	**Incorrect**
51	TF	Boundary value analysis can only be used to do white-box testing	TRUE	FALSE						

52	MC	Which testing phase tests individual software modules combined together as a group?	**Integration testing**	**Correct**	Module Testing	**Incorrect**	White-Box Testing	**Incorrect**	Software Testing	**Incorrect**
53	MC	Statement Covergare will not check for the following	Unused branches	**Incorrect**	Dead Code	**Incorrect**	**Missing Statement**	**Correct**	Unused statement	**Incorrect**
54	MC	Equivalance Partitioning is	A black box testing technique used only by developers	**Incorrect**	A white box testing technique appropriate for component testin	**Incorrect**	None of the mentioned	**Incorrect**	**A black box testing technique appropriate to all levels of testing**	**Correct**
55	MC	Before launching a software which testing is to be done in-house?	Beta	**Incorrect**	**Alpha**	**Correct**	Gamma	**Incorrect**	None of the mentioned	**Incorrect**
56	MC	Which of the following is not one of three software productaspects address by McCall's software quality factors	ability to undergo change	**Incorrect**	**production cost & scheduling**	**Correct**	operational characteristics	**Incorrect**	adaptibility to new environments	**Incorrect**
57	MC	Which of the following are ISO 9126 software quality factors?	Fuctionality only	**Incorrect**	**Functionality, Portability & Reliability**	**Correct**	Portability only	**Incorrect**	Reliability Only	**Incorrect**

58	MC	Three Categories of risk are	buisness risks, personnel risks & budget risks	**Incorrect**	planning risks, technical risks & personnel risks	**Incorrect**	**project risks , technical risks & buisness risk**	**Correct**	managem ent risks, technical risks & design risks	**Incorrect**
59	MC	Project manager will also be involved in making choice that require balancing in	**Goal of the project & Goals of the firm**	**Correct**	Goals of the resources	**Incorrect**	Goals of the project only	**Incorrect**	Goals of the firm only	**Incorrect**
60	MC	Of the following management skills, which will a project manager use most?	leading	**Incorrect**	**communicating**	**Correct**	influencing the organizati on	**Incorrect**	Negotiating	**Incorrect**