Unit-1: Introduction to Software Engineering, Object-Oriented Methodology and Life Cycle Multiple Choice Questions [1 Mark]	
1.	Software engineering focuses on producing: a) Good quality product b) Defect-free product c) High performance product d) Reusable product
2.	Software consists of: a) Programs b) Programs and documentations c) Set of instructions and operating system d) Programs, documentations and operating procedure manuals
3.	Operating procedure manuals help to: a) Understand the software b) Operate the software c) Maintain the software d) All of the above
4.	Which is not a part of operating procedure manuals? a) Installation guide b) Reference guide c) Test plan d) System administration manual
5.	Which of the following is not a part of documentations? a) Software requirement specification document b) System overview c) Test plan d) Source code
6.	Which one is not a characteristic of software?

	a) Software does not wear out b) Software is not flexible c) Software is enhanceable d) Software is reusable
7.	The full form of COTS is:
	a) Commercially off-the-shift components b) Commercially off-the-shelf classes c) Components off-the-shelf d) Commercially off-the-shelf components
8.	Stakeholders consist of:
	a) Developers b) Management c) Users d) All of the above
9.	The use of components promotes the concept of:
	a) Flexibility b) Reusability c) Invisibility d) Conformity
10.	A class has:
	a) Attributes and operations b) Attributes and states c) Operations and behaviour d) State and information
11.	An object is defined as:
	a) Information of a class b) Instance of a class c) Attribute of a class d) Operation of a class
12.	The objects of the same class have:

	a) Different definitions for operations and information b) Same definition for operations and information c) Different operations d) Different formats
13.	A class inherits information from
	a) Descendant classes b) Same class c) Ancestor classes d) Descendent and ancestor classes
14.	Encapsulation is known as:
	a) Data sharing concept b) Data retrieval concept c) Data hiding concept d) Date transfer concept
15.	A method is:
	a) The sequence of steps to be performed to fulfil the assigned task b) The set of operations for a particular task c) Both (a) and (b) d) None of the above
16.	The literal meaning of polymorphism is:
	a) Few forms b) Many forms c) No form d) Different things with the same meaning
17.	Function overriding is a type of:
	a) Encapsulation b) Inheritance c) Polymorphism d) Reusability
18.	Abstraction is:

	a) Elimination of relevant details b) Elimination of irrelevant details c) Getting distracted by thoughts d) Reducing the understanding of the system
19.	Object composition refers to:
	a) Use of object of one class as data type in another class b) Derived class inheriting attributes and operations from the base class c) Polymorphism d) Data hiding concept
20.	Object-oriented methodologies include:
	a) Coad and Yourdon methodology b) Booch methodology c) Rumbaugh methodology d) All of the above
21.	Object-oriented methodologies do not include:
	a) Coad and Yourdon methodology b) Jacobson methodology c) Boehm methodology d) Rumbaugh methodology
22.	A class inherits data and operations from its:
	a) Subclass b) Superclass c) Derived class d) All of the above
23.	What is encapsulation?
	a) Enforcement of data hiding concept b) Division of a module into submodules c) Including data members within a class d) Including operations within a class
24.	What is the importance of data hiding?

	a) Preventing data from intentional modifications b) Making data available in correct format c) Preventing data from accidental modifications d) None of the above
25.	What are the benefits of inheritance?
	a) Lowers the number of lines of code b) Lowers effort c) Removes redundancy d) All of the above
26.	What is the relationship between a class A and another class B which includes the object of type class A as its attribute?
	a) has-a b) is-a c) uses-a d) includes-a
27.	Generalization and specialization relationship between two classes are known as:
	a) has-a relationship b) uses-a relationship c) is-a relationship d) includes-a relationship
28.	The Booch methodology can be broadly divided into:
	a) Micro process and major process b) Macro process and minor process c) Macro process and micro process d) Macro process and mini process
29.	The Rumbaugh methodology is popularly known as:
	a) Object method technique b) Object-oriented design c) Object modelling technology d) Object modelling technique
30.	OMT stands for:

a) Object modelling technique
b) Oriented modelling technique
c) Object modelling technology
d) Object mobile technique

31. The analysis phase of the OMT method consists of:

a) Class model, static model, functional model
b) Object model, dynamic model, functional model
c) Object model, static model, functional model
d) Object model, static model, dynamic model

32. OOSE stands for:

a) Object-oriented system engineering
b) Object-oriented system evolution
c) Object-oriented software evolution
d) Object-oriented software engineering

33. The Jacobson methodology is popularly known as:

a) Object modelling technique
b) Object-oriented software engineering
c) Object-oriented design
d) Object-oriented analysis and design

34. Which of the following objects are identified in the analysis model?

(i) Analysis objects
(ii) Entity objects
(iii) Control objects
(iv) Interface objects

a) (i), (iii), (iv)
b) (i), (ii), (iv)
c) (ii), (iii), (iv)
d) All of the above

35. The Jacobson methodology is:

a) Stronger in analysis part and weaker in design part
b) Stronger in design part and weaker in analysis part
c) Stronger in behavioural areas and weaker in other areas
d) Stronger in both design and analysis part

36.	UML is related to:
	a) Object-oriented concepts b) Operation-oriented concepts c) Procedure-oriented concepts d) All of the above
37.	Object-oriented approach is:
	a) Non-iterative b) Iterative c) Highly iterative d) None of the above
38.	SDLC stands for:
	a) Software development life cycle b) Software design life cycle c) System development life cycle d) Sequential design life cycle
39.	Which of the following is not an object-oriented model?
	a) Fountain model b) Rational unified process c) Extreme programming d) None of the above
40.	Which model produces a large number of documents?
	a) Extreme programming b) Waterfall model c) Build-and-fix model d) None of the above
41.	Which of the following is the disadvantage of the waterfall model?
	a) Large number of documents are produced b) Separation of life cycle phases c) Both (a) and (b) d) None of the above
42.	Which model is suitable for stable and known requirements?

	a) Spiral model b) Prototyping model c) Waterfall model d) Iterative enhancement model
43.	Prototyping model is most suitable for projects with:
	a) Stable requirements b) Defined and understandable requirements c) Small size d) Changing requirements
44.	In which model, the high user participation is required?
	a) Waterfall model b) Prototyping model c) Build-and-fix model d) All of the above
45.	In which model, the requirements are implemented by priority?
	a) Waterfall model b) Prototyping model c) Iterative enhancement model d) Build-and-fic model
46.	In which model, a usable product is produced at the end of each cycle?
	a) Prototyping model b) Waterfall model c) Extreme programming model d) Iterative enhancement model
47.	Through which model, various cycles are permitted by the customer to see the progress of the software continuously?
	a) Waterfall model b) Prototyping model c) Iterative enhancement model d) Extreme programming model
48.	The spiral model is developed by:

	a) Barry W. Boehm b) L. Briand c) Victor Basili d) B. Henderson-Sellers
49.	If user feedback and involvement are not available, which model is suitable?
	a) Waterfall model b) Iterative enhancement model c) Prototyping model d) None of the above
50.	The spiral model is suitable for:
	a) Small-sized projects b) Low-budget projects c) Simple projects d) Large-sized projects
51.	The spiral model primarily deals with:
	a) Non-functional requirements b) Risk management c) Quality assurance d) Defect management
52.	The radial dimension of the spiral model shows:
	a) Progress made in the completion of the final software b) Schedule of the project c) Cumulative cost of the project d) None of the above
53.	The angular dimension of the spiral model shows:
	a) Progress made in the completion of the final software b) Schedule of the project c) Cumulative cost of the project d) None of the above
54.	The disadvantage of the spiral model is:

a) It is not suitable for large-sized projects
b) It produces low-cost software
c) It requires expertise to determine and resolve risks
d) All of the above

55. The extreme programming is based on:

a) Ad hoc approach
b) Agile processes
c) Formal methods
d) Stochastic processes

56. The key features of agile process include:

a) Working software is produced very early
b) Iterative planning
c) The customer is always present at the developer's site
d) None of the above

57. Which of the following is not a rule of agile processes?

a) Working software is produced very early
b) Iterative planning
c) The customer is always present at the developer's site
d) None of the above

58. Spikes are:

a) Quick exploration of user stories
b) Detailed exploration of user stories
c) Ranking of user stories
d) Used to identify risky user stories

59. XP is suitable for:

a) Small and medium-sized projects
b) Large-sized projects
c) Non-changing requirements
d) All of the above

60. XP is not suitable for application where:

	a) Documentation is required b) Continuous customer involvement cannot be achieved c) Technology is simple d) Pair programming is suitable
61.	Object-oriented software development life cycle models deal with:
	a) Changing requirements b) Real-world projects c) Business objects d) All of the above
62.	In the fountain model, arrows with circles depict:
	a) Overlapping phases b) Iterations c) Sequential phases d) Reusability
63.	In the fountain model, circles represent:
	a) Overlapping phases b) Iterations c) Sequential phases d) Reusability
64.	RUP is stands for:
	a) Risk-oriented unified process b) Resource uniform process c) Rational unified process d) Rational uniform process
65.	RUP is maintained by:
	a) Microsoft b) TCS c) Alcatel d) IBM Rational Software
66.	UML stands for

	a) Unified Model Link b) Uniform Modelling Language c) Unified Modelling Language d) Uniform Microsoft Language
67.	The team of unified process development includes
	a) I. Jacobson b) B. Boehm c) Victor Basili d) L. Briand
68.	How many phases are included in the RUP model?
	a) Two phases b) Four phases c) Five phases d) Six phases
69.	The major elements of the static structure of RUP are:
	a) Workflows b) Artifacts c) Disciplines d) All of the above
70.	Which of the following is not an activity of elaboration phase?
	a) Design of use case model b) Prototyping c) Execution of detailed iteration phase d) Establishment of scope and boundary of the project
71.	The outcome of the construction phase includes:
	a) Software product b) Use case product c) Software development plan d) Initial project glossary