

CS504 midterm solved paper 2010

Question No: 1 (Marks: 1) - Please choose one

UML (unified modeling language) analysis modeling focuses on the _____ .

- ▶ behavioral model and environment model.
- ▶ behavioral model and implementation model.
- ▶ user model and environmental model
- ▶ user model and structural model

Question No: 2 (Marks: 1) - Please choose one

The data flow diagram must be augmented by descriptive text in order to describe

the functional requirements for a software product.

▶ True

▶ False

Question No: 3 (Marks: 1) - Please choose one

It is not possible to use ordinary data flow diagrams to model the functional requirements of real-time systems.

▶ True

▶ False

Question No: 4 (Marks: 1) - Please choose one

An object or class may further be classified on the basis of

- ▶ Behavior Driven attributes
- ▶ Data Driven attributes
- ▶ Responsibility Driven attributes
- ▶ All of the above

Question No: 5 (Marks: 1) - Please choose one

A public Interface provides a way for _____ with other Classes.

▶ Communication

▶ Accessibility

▶ Reaching

▶ All of the above

Question No: 6 (Marks: 1) - Please choose one

DFD Notation contains

▶ Data Store

▶ Extenal Agents

▶ Processes

▶ All of the given

Question No: 7 (Marks: 1) - Please choose one

A complex System evolves from a

▶ smaller system

▶ medium sysetem

▶ bigger system

▶ non of the given

Question No: 8 (Marks: 1) - Please choose one

Requirement engineering mainly deals with the ----- of the system

- ▶ definition phase
- ▶ development phase
- ▶ maintenance
- ▶ non of the above

Question No: 9 (Marks: 1) - Please choose one

Insufficient user involvement leads to ----- products.

- ▶ unacceptable
- ▶ ambiguous

▶ dissatisfaction of customer to

▶ non of the above

Question No: 10 (Marks: 1) - Please choose one

Which one is not the purpose of Interaction Diagrams ?

▶ Model interactions between objects

▶ Assist in understanding how a system (a use case) actually works

▶ Identify responsibilities/operations and assign them to classes

▶ Identify dependencies among objects

Question No: 11 (Marks: 1) - Please choose one

Collaboration diagrams have basically two types of components: objects and -----

- ▶ messages
- ▶ methods
- ▶ classes
- ▶ non of the above

Question No: 12 (Marks: 1) - Please choose one

The scope description establishes the -----between the system we are developing and everything else in the universe

- ▶ Boundary

- ▶ Balance
- ▶ Constraint
- ▶ None of the given

Question No: 13 (Marks: 1) - Please choose one

Which one is not a type of messages which Sequence Diagrams Depict

- ▶ Synchronous
- ▶ Asynchronous
- ▶ Create
- ▶ Update

Question No: 14 (Marks: 1) - Please choose one

What is the most crucial non-functional requirement of a system to control radiation dosages that are emitted as treatment for cancer?

- ▶ Security
- ▶ Reliability
- ▶ Usability
- ▶ Accuracy

Question No: 15 (Marks: 1) - Please choose one

Given below are some statements associated with data flow diagrams. Identify the correct statement from among them.

- ▶ Data flow is made use of to model what systems do.
- ▶ Flows of data can take place from a process to a sink.
- ▶ All processes have to be levelled or decomposed.
- ▶ Context diagram shows the major system processes.

Question No: 16 (Marks: 1) - Please choose one

What would be the most suitable architecture to develop a commercial web page to do business transactions over the internet?

- ▶ Client server model
- ▶ Island model
- ▶ RAD model
- ▶ Repository model

Question No: 17 (Marks: 2)

To manage the complexity of the system we need to apply the principles of abstraction. Discuss briefly.

Question No: 18 (Marks: 2)

Define Motivation of GUI

Question No: 19 (Marks: 2)

Is the design of software architecture a creative process?

Question No: 20 (Marks: 3)

Keeping in mind the Connie's case study, what rule of thumbs were identified, list them down.

Question No: 21 (Marks: 3)

The CPU of a computer consists of an ALU and a CU. Intel and AMD are two types of CPUs, which are widely used in computers. Users of computers can be either novices or experts.

Consider the following classes.

- (i) CPU and AMD
- (ii) User and Computer
- (iii) CPU and ALU

The correct relationships between the above classes are

- (a) (i) inheritance (ii) association (iii) inheritance.
- (b) (i) association (ii) inheritance (iii) aggregation.
- (c) (i) association (ii) inheritance (iii) association.
- (d) (i) association (ii) inheritance (iii) aggregation.
- (e) (i) inheritance (ii) association (iii) aggregation.

Question No: 22 (Marks: 5)

What is action-oriented approach for Software Design?

Question No: 23 (Marks: 5)

Collaboration Diagrams depict Dynamic behavior of the system, explain it.