

CS504 midterm 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 realtime 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

▶ External 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.