

Vendor: Blockchain

Exam Code: CBDE

Exam Name: BTA Certified Blockchain Developer -

Ethereum

Version: Demo

# **QUESTION 1**

When using assert to check invariants and it evaluates to false: A. all gas is consumed.

B. all remaining gas is returned.

Correct Answer: A

### **QUESTION 2**

Checking the balance of an address inside a loop of a smart contract constantly:

A. doesn\\'t cost any gas.

B. cost gas every time we check the balance.

Correct Answer: B

#### **QUESTION 3**

Go-Ethereum vs. Ganache:

A. both are the same, just implemented in a different language.

B. with Go-Ethereum you get a real blockchain node where you can create your own local private network, connect to Test-Networks or the Main-Net, while with Ganache you get an in-memory blockchain simulation.

C. with Ganache you get a real blockchain node where you can connect to the Test-Networks Rinkeby and Ropsten.

Correct Answer: B

### **QUESTION 4**

If you need more fine-grained functionality than solidity offers out of the box:

A. you can incorporate inline-assembly to get better controls.

B. you have to import pre-compiled assembly files which are then hard-copied into the bytecode of the compiled solidity file.

C. you can use Viper, the experimental assembly like language specifically to offer more flexibility.

Correct Answer: A

# **QUESTION 5**

Address.Call vs. Address.Delegatecall:

A. Address.call() is used for calling other contracts using the scope of the called contract in terms of storage variables. Address.delegatecall() is used for libraries, which uses the storage variables of the contract who called. Libraries are a great way to re-use already existing code and delegatecall can make sure that no storage is used from the library, instead it looks like the code is directly copied into the calling contract.

B. Address.delegatecall() is used for calling other contracts using the scope of the called contract in terms of storage variables. Address.call() is used for libraries, which uses the storage variables of the contract who called. Libraries are a great way to re-use already existing code and call() can make sure that no storage is used from the library, instead it looks like the code is directly copied into the calling contract.

Correct Answer: A

### **QUESTION 6**

Using selfdestruct(beneficiary) with the beneficiary being a contract without a payable fallback function:

A. will throw an exception, because the fallback function is non-payable and thus cannot receive ether.

B. it\\'s impossible to secure a contract against receiving ether, because selfdestruct will always send ether to the address in the argument. This is a design decision of the Ethereum platform.

C. selfdestruct doesn\\'t send anything to a contract, it just re-assigns the owner of the contract to a new person. Sending ether must be done outside of selfdestruct.

Correct Answer: B

### **QUESTION 7**

A Struct is a great way:

A. to define a new datatype in Solidity, so you don\\'t need to use objects of another contract.

B. to hold instances of other contracts.

C. to implement pointers to other contracts that can hold new datatypes.

Correct Answer: A

#### **QUESTION 8**

A Private Network is:

A. a side Channel to the Ethereum Main Net which costs less gas to run smart contracts.

B. an exact clone of the Rinkeby Test-Network which can be started as virtual machine in the Azure Cloud.

C. a Network running only in a private area, where people cannot join freely and openly.

Correct Answer: C

#### **QUESTION 9**

View and Pure Functions:

A. a function marked as pure can change the state, while a view function can only return static calls.

B. a function marked as view can never access state variables, while pure functions are here to return only one value.

C. a view function can access state variables, but not write to them. A Pure function cannot modify or read from state.

Correct Answer: C

### **QUESTION 10**

**Ethereum Nodes:** 

A. must implement the Ethereum protocol and external access can only be done via the proprietary Ethereum Libraries like Web3.js.

B. must implement the Ethereum Protocol and a JSON-RPC to talk with clients.

C. must implement Web3.js to interact with Websites.

Correct Answer: B

# **QUESTION 11**

Proof of Work (PoW) vs. Proof of Stake.

A. PoW is computationally intensive which requires lots of energy. On the other hand, miners earn straightforward a reward for mining a block and incorporating transactions.

B. PoW is better than PoS, because with PoS we increase the amount of energy spent on the network.

C. PoS is mining with specialized new hardware that has to be purchased with a stack of Ether in the network. Hence the Name: Proof of Stake, which derives from Stack.

Correct Answer: A

### **QUESTION 12**

When using require to check input parameters and it evaluates to false:

A. all gas is consumed

B. all remaining gas is returned.

Correct Answer: B