



October 2016

## Fundamental IT Engineer Examination (Afternoon)

### Answers and Marks(in blue)

#### Q1

##### Subquestion 1

- 2 A f) server's public key
- 2 B e) server's private key
- 2 C c) 64k bytes
- 2 D e) server's private key

##### Subquestion 2



- 2 a) Both a client and a server can send heartbeat requests. Thus, it is possible that a malicious user on the server side can read data from the client's memory as well.
- 2 c) It is difficult to investigate an attack because an attacker only reads the contents of the memory and the attack leaves no trail of damage.

#### Q2

##### Subquestion 1

- 2 A c) 100011011
- 3 B c)  $(M_S \wedge Q_S)$
- 3 C b) 00000110

##### Subquestion 2

- 2 D b)  (OR gate)
- 2 E e)  (NOR gate)

### Q3

#### Subquestion 1

- 2 A e) `OwnerName IN (SELECT OwnerName FROM PetTable  
GROUP BY OwnerName HAVING(COUNT(OwnerName)>1))`

#### Subquestion 2

- 2 B e) `PetTable`  
1 C c) `ownerID`  
1 D c) `ownerID`  
2 E d) `ownerTable`

#### Subquestion 3

- 2 F a) `COUNT(DogID) AS NoOfDogs,  
SUM(BalanceDue) AS TotalAmount, Township`  
2 G d) `OwnerTable INNER JOIN PetTable  
ON OwnerTable.OwnerID = PetTable.OwnerID`

### Q4

#### Subquestion 1

- 3 A d) The gateway addresses of PC21 to PC30 were assigned to 192.168.1.11/24 instead of 192.168.1.1/24.  
3 B h) The IP addresses of PC31 to PC50 were wrongly configured to 192.168.2.xxx instead of 192.168.3.xxx.  
3 C b) The DNS server address was not configured in any of the PCs.

#### Subquestion 2

- 3 D c) change his PC's IP address to 192.168.1.132 and default gateway to 192.168.1.1

## Q5

### Subquestion 1

- 2 A c)  $b < 20$  and  $d > 10$  are not evaluated  
2 B g) all single conditions are evaluated

### Subquestion 2

- 1 C a) (3)  
1 D d) (6)  
1 E f) (10)  
1 F e) (8)

### Subquestion 3

- 2 G b) 3  
2 H e) 6

## Q6

### Subquestion 1

- 2 A c) J  
3 B c)  $K = 0$   
3 C h)  $C - B[K]$   
3 D d) K  
3 E c)  $B[K] + A[I]$

### Subquestion 2

- 2 F d) 1 2 3 4 5 5 6 6 6 6  
2 G b) 1 2 1 3 4 1 4 2 3 3  
2 H b) 1 2 1 3 4 1 4 2 3 3

## Q7

### Subquestion

- 4    A    c)    `i < power`
- 4    B    a)    `input_number != 0`
- 4    C    d)    `input_number = input_number / 10`
- 4    D    d)    `calc_power(remainder, digits)`
- 4    E    e)    `n_input == sum`

## Q8

### Subquestion

- 4    A    c)    `enum`
- 4    B    c)    `char[]`
- 4    C    b)    `earnedBadge, earnedBadge.getValue()`
- 4    D    d)    `score += 50`
- 4    E    d)    `checkQuiz(quiz.getAnswers(), student.getAnswers())`