

th: 2:00:00

Time Taken:0:24:02

KHIU KIM HONG EEE-DEEE-FT-3A-06: Attempt 2

☐ Deauthentication

2

✓

3

✓

5

✓

6

✓

3

✓

9

✓

**Question 10** (12 points) ✓ *Saved*

Which of the following statements are TRUE for Point Coordination Function (PCF) and Distributed Coordination Function (DCF)?

- ☐ PCF is used during the Contention Period (CP).
- ☒ PCF requires the AP to perform the role of a polling master.
- ☒ The interframe space used in DCF is DIFS.
- ☒ The interframe space used in PCF is PIFS.
- ☐ DCF is used during the Contention Free Period (CFP).
- ☒ PCF and DCF can be used simultaneously in a BSS.
- ☐ PCF and DCF can operate in all APs and all STAs.
- ☐ PIFS has a longer interval than DIFS.

2:00:00

Time Taken:0:22:36

KHIU KIM HONG EEE-DEEE-FT-3A-06: Attempt 2

**Question 1 (14 points)** ✓ *Saved*

Arrange the following events for an STA to successfully transmit in the distributed coordination function without RTS/CTS.

3 ✓

6 ✓

9 ✓

6



STA completes its data transmission.

1



STA senses that the wireless medium is free.

5



When the backoff interval counter reaches zero, STA will start its data transmission.

8



AP will transmit the acknowledgement packet.

2



STA will wait for the expiry of distributed interframe space (DIFS).

3



STA will start to decrease its backoff interval counter.

4



STA will listen to the wireless medium to detect for any transmission.

9



STA will select a random backoff interval.

7



AP will wait for the expiry of short interframe space (SIFS).

2:00:00

Time Taken:0:22:45

KHIU KIM HONG EEE-DEEE-FT-3A-06: Attempt 2

**Question 2** (8 points) ✓ *Saved*

Which one of the following services is used to route a packet from a wired LAN to an STA in a BSS?

- ☐ Association
- ☐ Distribution
- ☒ Integration
- ☐ Reassociation

**Question 3** (8 points) ✓ *Saved*

Which one of the following services is used to allow an STA to roam around different ESS?

- ☒ Reassociation

2:00:00

Time Taken:0:22:51

KHIU KIM HONG EEE-DEEE-FT-3A-06: Attempt 2

3



6



9

**Question 3** (8 points) ✓ *Saved*

Which one of the following services is used to allow an STA to roam around different ESS?

☒ Reassociation☐ Disassociation☐ Association☐ Integration**Question 4** (14 points) ✓ *Saved*

Arrange the following events for an STA to successfully transmit in the distributed coordination function RTS/CTS.

2:00:00

Time Taken:0:23:01

KHIU KIM HONG EEE-DEEE-FT-3A-06: Attempt 2

**Question 4 (14 points)** ✓ *Saved*

Arrange the following events for an STA to successfully transmit in the distributed coordination function RTS/CTS.

3



6



9



10



STA completes its data transmission.

7



AP will transmit CTS.

13



STA will select a random backoff interval.

8



After CTS is successfully transmitted, STA will wait for the expiry of short interframe space (SIFS).

1



STA senses that the wireless medium is free.

6



After RTS is successfully transmitted, AP will wait for the expiry of short interframe space (SIFS).

11



AP will wait for the expiry of short interframe space (SIFS).

2



STA will wait for the expiry of distributed interframe space (DIFS).

2:00:00

Time Taken:0:23:13

KHIU KIM HONG EEE-DEEE-FT-3A-06: Attempt 2

3

✓

8

▼

After CTS is successfully transmitted, STA will wait for the expiry of short interframe space (SIFS).

1

▼

STA senses that the wireless medium is free.

6

▼

After RTS is successfully transmitted, AP will wait for the expiry of short interframe space (SIFS).

11

▼

AP will wait for the expiry of short interframe space (SIFS).

2

▼

STA will wait for the expiry of distributed interframe space (DIFS).

12

▼

AP will transmit the acknowledgement packet.

4

▼

STA will listen to the wireless medium to detect for any transmission.

9

▼

STA will start its data transmission.

5

▼

When the backoff interval counter reaches zero, STA will transmit RTS.

3

▼

STA will start to decrease its backoff interval counter.

9

✓

2:00:00

Time Taken:0:23:20

KHIU KIM HONG EEE-DEEE-FT-3A-06: Attempt 2

3

✓

6

✓

9

✓

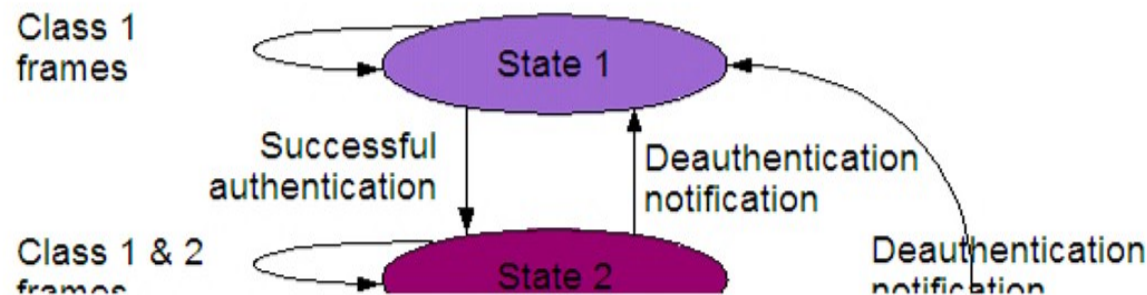
**Question 5 (8 points)** ✓ *Saved*

How does a Power-Save mode STA know that there are frames buffered at the AP?

- ☐ By reading the Transmit Indication Map (TIM) in the beacon frame
- ☐ By reading the Time Indication Map (TIM) in the beacon frame
- ☒ By reading the Traffic Indication Map (TIM) in the beacon frame
- ☐ By reading the Transfer Indication Map (TIM) in the beacon frame

**Question 6 (8 points)** ✓ *Saved*

What values of two variables to keep track of the authentication and association status of a STA in State 2?





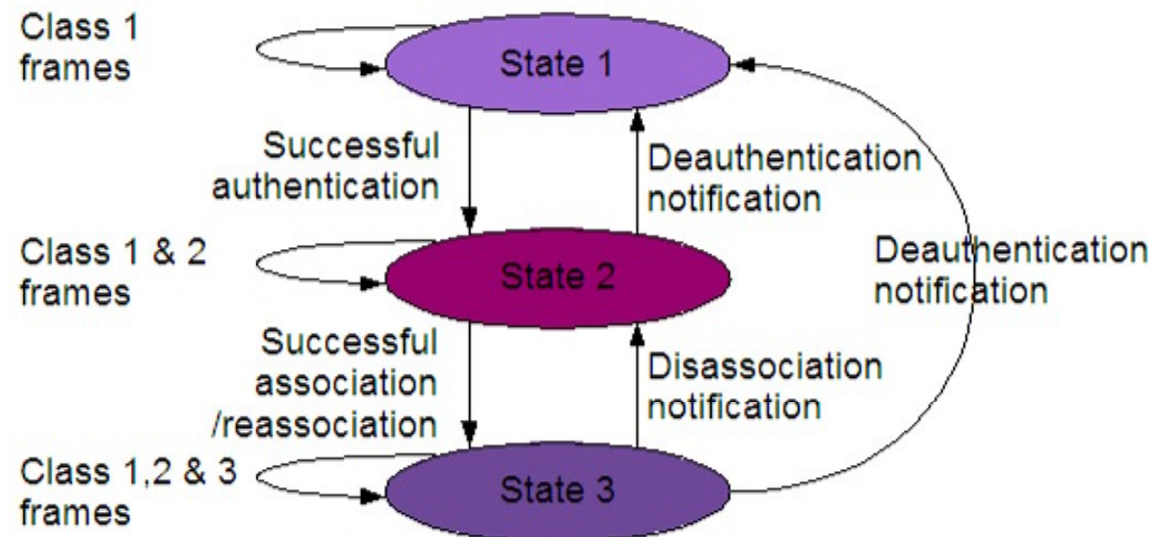
2:00:00

Time Taken:0:23:28

KHIU KIM HONG EEE-DEEE-FT-3A-06: Attempt 2

**Question 6** (8 points) ✓ *Saved*

What values of two variables to keep track of the authentication and association status of a STA in State 2?



- ☐ unauthenticated and unassociated
- ☒ authenticated and unassociated
- ☐ authenticated and associated



2:00:00

Time Taken:0:23:35

KHIU KIM HONG EEE-DEEE-FT-3A-06: Attempt 2

3

✓

**Question 7** (8 points) ✓ *Saved*

What is purpose of physically sensing the channel in CSMA/CA without RTS/CTS?

- ☐ To prevent STAs from transmitting immediately after the end of transmission of the previous packet.
- ☐ To prevent STAs from transmission once the channel becomes idle.
- ☐ To prevent STAs from transmitting a long packet.
- ☒ To prevent STAs from transmission when the channel is busy.

6

✓

9

✓

**Question 8** (12 points) ✓ *Saved*

Which of the following is/are TRUE for WLAN securities?

- ☒ In IEEE 802.11 WLAN, a Service Set Identifier (SSID) of the network has to be configured at all its APs for authentication.
- ☒ WPA encryption employs the temporal key integrity protocol (TKIP) that uses a 48-bit hashed initialization vector and also changes the key after a user-specified amount of time.

2:00:00

Time Taken:0:23:44

KHIU KIM HONG EEE-DEEE-FT-3A-06: Attempt 2

**Question 8** (12 points) ✓ *Saved*

Which of the following is/are TRUE for WLAN securities?

- ☒ In IEEE 802.11 WLAN, a Service Set Identifier (SSID) of the network has to be configured at all its APs for authentication.
- ☒ WPA encryption employs the temporal key integrity protocol (TKIP) that uses a 48-bit hashed initialization vector and also changes the key after a user-specified amount of time.
- ☐ WEP encryption is more secure than WPA encryption in WLAN technology.
- ☐ WPA-PSK uses a same encryption key for each client device, for each packet, for each session, unlike WEP, which only varies the 24-bit IV.
- ☒ Shared Key authentication (WEP) is more secure than Open System authentication
- ☒ WEP encryption uses a 24-bit initialization vector (IV) for either 64-bit encryption or 128-bit encryption.

**Question 9** (8 points) ✓ *Saved*

Which one of the following services is used to enable data encryption between different STAs?

th: 2:00:00

Time Taken:0:23:56

KHIU KIM HONG EEE-DEEE-FT-3A-06: Attempt 2

**Question 9** (8 points) ✓ *Saved*

Which one of the following services is used to enable data encryption between different STAs?

☐ Authentication☒ Privacy☐ MSDU delivery☐ Deauthentication**Question 10** (12 points) ✓ *Saved*

Which of the following statements are TRUE for Point Coordination Function (PCF) and Distributed Coordination Function (DCF)?

☐ PCF is used during the Contention Period (CP).☒ PCF requires the AP to perform the role of a polling master.