

**UNIVERSITY COLLEGE TATI (UCTATI)****FINAL EXAMINATION QUESTIONS**

COURSE CODE	: BNS 3123
COURSE	: WIRELESS NETWORK
SEMESTER/SESSION	: 2 – 2021/2022 (April)
DURATION	: 3 HOURS

Instructions:

1. This booklet contains 5 questions. Answer **ALL** questions.
2. All answers should be written in the answer booklet.
3. Write legibly and draw sketches wherever required.

DO NOT OPEN THIS BOOKLET UNTIL YOU ARE TOLD TO DO SO
THIS BOOKLET CONTAINS 5 PRINTED PAGES INCLUDING THE COVER PAGE

QUESTION 1

- a) Generally, what is Wireless LAN? (2 marks)
- b) How do a WLAN work and benefit business? (6 marks)
- c) In the Wireless LAN environment, what components involves in wireless architecture? (6 marks)

QUESTION 2

- a) Based on Figure 1 below, justify the function 802.11 on both the Datalink Layer and the Physical Layer sitting on the OSI layers. (6 marks)

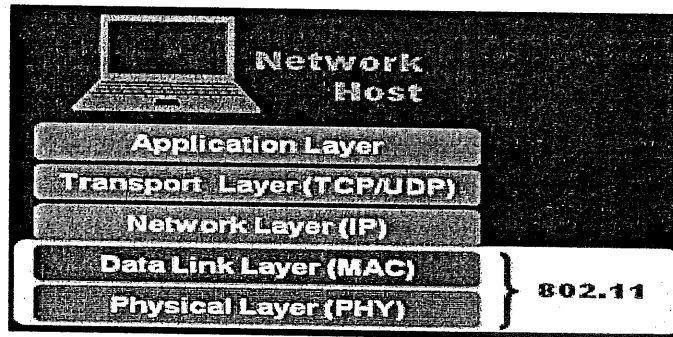


Figure 1.

- b) Based on Figure 2 below, discuss the equipment use and its functions. (4 marks)

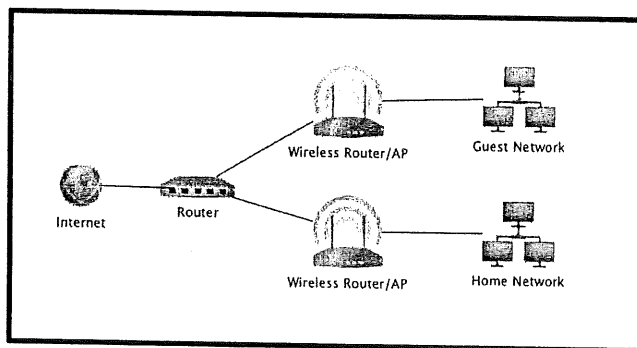


Figure 2.

WIRELESS NETWORK (BNS 3123)

Diagram 1.

c) What is a Cisco Dual-Band access point? (4 marks)

d) Based on Figure 3 below, mobile phones belong to the radio frequency (RF) wave part of the spectrum which belongs to the category of non-ionizing radiation. Criticize the RF process and how it involves the human condition when using the mobile phone based on the (RF) condition. (6 marks)

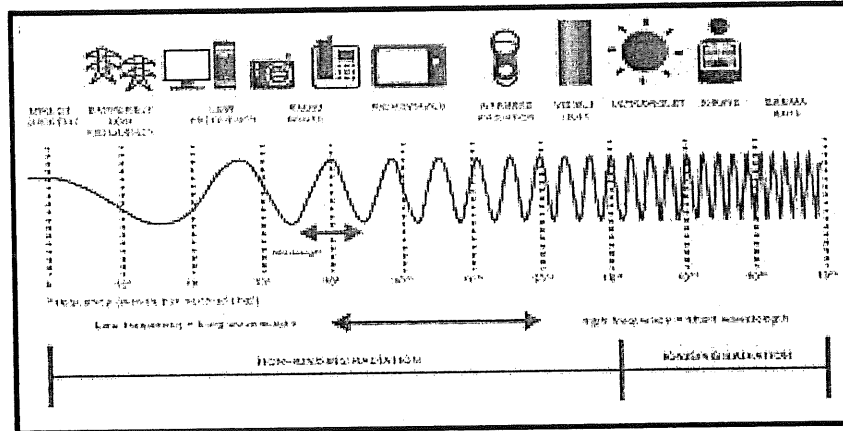


Figure 3.

e) State **THREE (3)** Analog modulation techniques and **THREE (3)** modes of propagations. (6 marks)

f) In generally, express about FDD (Frequency division multiplexing). (2 marks)

QUESTION 3

a) State the main function of the bridge. (2 marks)

b) Based on the Figure 4 below, what obstacle occurs to the WIFI antenna, and catalogue another **THREE (3)** barrier of construction materials that prevent the functionality of WIFI antenna.

(5 marks)

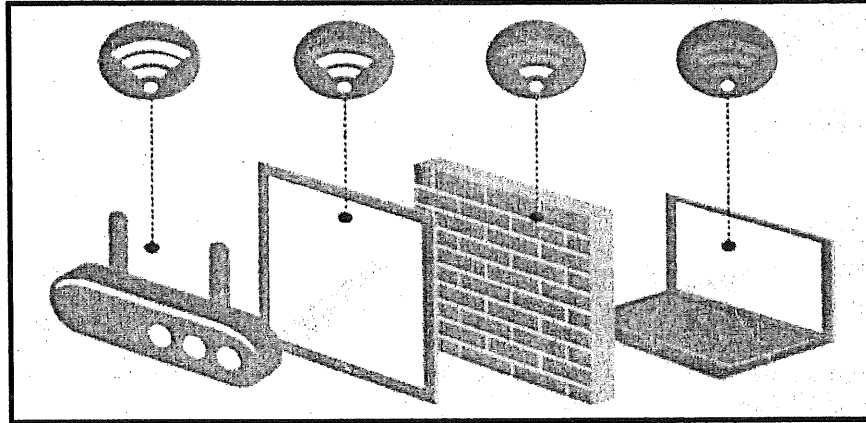


Figure 4: Antenna Obstacle.

c) Refer to Figure 5 below, clarify about DDoS and phase out **THREE (3)** different ways to protect against DDoS attacks on the WIFI environment.

(6 marks)

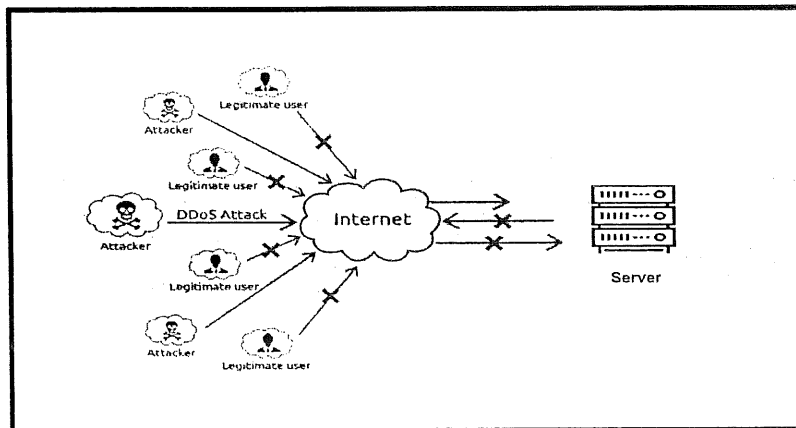


Figure 5: DDoS Attack.

d) On home user's environment, how to secure using the authentication system.
State out **TWO (2)** types of WPA and WPA2 of authentications.

(6 marks)

e) What is the concept behind the Integrated Wireless Protection.

(2 marks)

QUESTION 4

- a) What is Wireless Site- Surveying?. (2 marks)
- b) List out **SIX (6)** site survey equipment. (6 marks)
- c) How to improve the Fresnel impact? (6 marks)
- d) When wireless connection problems occur, how end users and administrators respond to the problems. (10 marks)
- e) Describes factors contributed to the wireless network performance. (4 marks)

QUESTION 5

- a) 5G technology in wireless technology have been adopted to Malaysian country. How does people or users' acceptance towards to the 5G technology itself and how ready the technology changes the infrastructure in Malaysia environment? (7 marks)
- b) Recline **TWO (2)** emerging technologies in Wireless Technology. (2 marks)

----- END OF QUESTIONS -----

