BRAINWARE UNIVERSITY

Course – MSc. (HN)

Wireless Networking (MHN302A)

(Semester – 3)

Time allotted: 3 Hours **Full Marks: 70**

[The figure in the margin indicates full marks. Candidates are required to give their answers in their own words as far as practicable.]

Group –A

(Multiple Choice Type Questions)

10 x 1 = 10

1. *Choose the correct alternative from the following:*

(i) Which of the following represent(s) the building blocks of wireless LANs?

a. BSS b. ESS

c. Both a & b d. None of these

(ii) Which scheme/ strategy are suitable to establish the communication between the access point (AP) and the infrastructure of LANs?

a. Wired b. Wireless

c. Both a & b d. Cannot Predict

(iii) Which multiple access technique is used by IEEE 802.11 standard for wireless LAN?

a. CDMA b. CSMA/CA

c. ALOHA d. None of these

(iv) In wireless distribution system

a. Multiple access point are inter-connected with each other b. There is no access point

c. Only one access point exists d. None of these

(v) Wireless communication started in

a. 1869 b. 1895

c. 1879 d. 1885

(vi) IEEE 802.11 defines basic service set as building block of a wireless

a. LAN
b. WAN protocol
c. MAN
d. All of the above

(vii) Frames that are used for initial communication between stations and access points are called

a. Control frames
b. Data frames
c. Beacon Frame
d. Management Frames

(viii) Maximum size of payload field in baseband layer is

a. 2244 Bits
b. 2664 Bits
c. 2774 Bits
d. 2884 Bits

(ix) Wireless transmission is divided into

a. 3 broad groups
b. 6 broad groups
c. 9 broad groups
d. 8 broad groups

(x) What is the maximum data rate for the 802.11g standard?

a. 6Mbps
b. 11Mbps
c. 22Mbps
d. 54Mbps

Group – B

(Short Answer Type Questions)
(Answer any *three* from the following)

3 x 5 = 15

2. Explain radio wave link. [5]
3. What is DSSS spread spectrum technology? Discuss FHSS. [2 + 3]
4. Differentiate between BSS and ESS. [5]
5. Explain the procedure of WPA2. [5]
6. Describe Dipole Antenna. [5]

Group – C

(Long Answer Type Questions)
(Answer any *three* from the following)

3 x 15 = 45

7. (a) What is TKIP? [5]
   (b) Explain wireless security protocol. [10]

8. (a) What is CCMP algorithm? [5]
   (b) Explain the working principle of bluetooth technology. [10]

9.	Explain narrowband transmission.	[15]
10.	Explain working principles of WLAN Devices.	[15]
11.	Describe satellite communication using suitable example.	[15]