

Student Registration Number

B

COURSE CODE: DCAP607 **COURSE TITLE: WIRELESS NETWORKS**

Date: 27-Sep-2013

Time: 09:30-12:30

Time Allowed: 3 hours

Max. Marks: 80

1. *This paper contains 10 questions divided in two parts on 1 page.*
2. **Part A is compulsory.**
3. **In Part B (Questions 2 to 10), attempt any 6 questions out of 9. Attempt all parts of the selected question.**
4. *The marks assigned to each question are shown at the end of each question in square brackets.*
5. *Answer all questions in serial order.*
6. **The student is required to attempt the question paper in English medium only.**

PART – A

Q1.

- a) Give two examples of semi directional antennae? [2]
- b) How is throughput different from data rate? [2]
- c) On what layers of the OSI reference model do wireless networks operate? [2]
- d) What is the primary purpose of a base station? [2]
- e) What are sources of RF interference? [2]
- f) What is the primary issue of using Bluetooth around 802.11 wireless LANs? [2]
- g) Which IEEE standards group uses Bluetooth as the basis for the standard? [2]
- h) Give an example of a highly directional antenna? [2]
- i) Give example of application that uses simplex, half-duplex and full-duplex communication? [2]
- j) What is the primary difference between an access point and a wireless LAN router? [2]

PART - B

- Q2. Giving a scenario explain how Man-in-the-Middle Attacks works. [10]
- Q3. Write different methods an attacker uses in DoS attack. How you will counter these attacks? [10]
- Q4. List and explain the requirements that you will consider when deciding between 2.4-GHz and 5-GHz. [10]
- Q5. List some primary 802.11 MAC functions and explain each in detail. [10]
- Q6. List and explain the benefits of using access controller when deployed with thin access points and what features it employ? [10]
- Q7. Write the necessary assessment steps you will take when implementing security policies in wireless networks. Also write some common security policies. [10]
- Q8. The Wi-Fi Protocol Access (WPA) standard provided by the Wi-Fi Alliance provides an upgrade to WEP. State the features of WPA in contrast with WEP. [10]
- Q9. Write detail description of middleware products. List and elaborate five features that you will look into the middleware products. [10]
- Q10. Why it is needed to look for the specific wireless WAN radio NIC before purchase? List and explain the things that you will first look into. [10]