PURBANCHAL UNIVERSITY

2018/ २०७५

4 Years Bachelor of Computer Application (BCA/Eighth Semester/Final)

Time: 3.00 hrs. Full Marks: 60 / Pass Marks: 24

BCA454WN, Wireless Network and Mobile Computing (Elective-II)

Candidates are required to give their own answers in their own words as far as practicable. Figure in the margin indicate full marks.

Group A

Answer TWO questions. **$2 \times 12 = 24$**

1. Explain in detail UMTS architecture, features and handover with neat sketch.
2. Explain in detail about Ad-hoc networks and its routing strategies with neat sketch.
3. Draw and explain the architecture of mobile computing and also discuss on the mobility management.

Group B

Answer SIX questions. **$6 \times 6 = 36$**

4. Describe the phases of HIPERLAN1.
5. Explain the user scenarios of Bluetooth transmission.
6. Discuss on any one type of encapsulation techniques used in mobile IP schemes.
7. Discuss on the features and services provided by GSM along with its security issues.
8. Explain IPV4. What are the advantages of IPV6 over IPV4?
9. What is mobile computing? Explain the transaction oriented TCP with an example.
10. Write short notes on any TWO:
    (a) DHCP
    (b) Mobile Devices
    (c) Infrared Vs Radio Transmission

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Group A

Answer TWO questions. **$2 \times 12 = 24$**

1. Explain in detail about IEEE 802.11 protocol architecture, features and applications.
2. Draw the basic architecture of GSM and explain in detail about its subsystems along with its interfaces.
3. What is Mobile Computing? Draw and explain the architecture of mobile computing with various applications of it.

Group B

Answer SIX questions. **$6 \times 6 = 36$**

4. Describe the characteristics of an Ad-hoc networks..
5. What are the basic purposes of a DHCP? Explain.
6. Explain the features of tunneling and encapsulation.
7. What is mobile TCP? Explain. Also point out demerits of conventional TCP incorporated in wireless environment.
8. What is mobile IP? Describe the process of IP packet delivery with neat sketch.
9. Explain the various generations of wireless networks with examples.
10. Write short notes on any TWO: 3+3
    (a) LTE and Bluetooth
    (b) Mobility Management
    (c) Handoff Process in GSM