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**Question Paper Code: 36202**

B.E. / B.Tech. DEGREE EXAMINATION, DEC 2020

Sixth Semester

Computer Science and Engineering

01UCS602 - FUNDAMENTALS OF MOBILE COMPUTING

(Regulation 2013)

Duration: 1:15hrs

Maximum: 30 Marks

PART A - (6 x 1 = 6 Marks)

**(Answer any six of the following questions)**

1. The shape for the cellular region for maximum radio coverage is  
(a) Circular                      (b) Square                      (c) Oval                      (d) Hexagon
2. Commonly used mode for 3G networks is  
(a) TDMA                      (b) FDMA                      (c) TDD                      (d) FDD
3. In TD-SDMA, there is a frame of \_\_\_\_\_ milliseconds and the frame is divided into \_\_\_\_\_ time slots.  
(a) 5, 7                      (b) 7, 5                      (c) 2, 5                      (d) 5, 2
4. \_\_\_\_\_ mechanism has a higher latency during handoff.  
(a) Transaction-oriented TCP                      (b) Mobile TCP  
(c) Indirect TCP                      (d) Snooping TCP
5. A Global Service for Mobile (GSM) uses two bands for duplex  
(a) Data                      (b) Communications                      (c) Signals                      (d) Frames

6. UMTS uses a constant chipping rate of 3.84 Mchps/s. A channel uses the spreading Factor 16. What is the transfer rate?  
 (a) 120kbps    (b) 480kbps    (c) 460kbps    (d) 960kbps
7. Proactive is also called as \_\_\_\_\_ protocols.  
 (a) Table Driven    (b) On demand routing    (c) Vector routing    (d) topology
8. Which network does not rely on a pre existing infrastructure?  
 (a) Wireless Ad Hoc Network    (b) Bluetooth  
 (c) HIPERLAN    (d) Wireless Sensor Network
9. \_\_\_\_\_ is not a mobile operating system?  
 (a) Windows    (b) Linux  
 (c) Symbian    (d) Android
10. Which of the following statement are true about mobile operating system?  
 1. Symbian is a mobile operating system.  
 2. Mobile operating system cannot be based on Linux.  
 3. Blackberry is a phone and not a Mobile Operating System.  
 4. 'Windows Mobile' product is similar to 'Pocket PC'  
 (a) 1, 2, 3 only    (b) 1, 3, 4 only  
 (c) 1, 2, 4 only    (d) 1, 4 only

PART – B (3 x 8= 24 Marks)

**(Answer any three of the following questions)**

11. Explain the structure of a mobile computing application in detail. (8)
12. Describe briefly about the route optimization in mobile IP. (8)
13. Explain GSM System architecture and GSM protocol architecture in detail. (8)
14. Explain how dynamic source routing protocol handles routing. Give example. (8)
15. Describe M-commerce in detail and write it's pros and cons. (8)