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**B.E.** (I.T.) (Semester - II) **MOBILE COMPUTING (Elective - III)** (2012 **Pattern**) [Max. Marks:70 *Time* :2:30 hours] Instructions to the candidates: Answer Q1 or Q2, Q3 or Q4, Q5 or Q6, Q7 or Q8, Q9 or Q10. Figures to the right indicate full marks. 2) Describe various generation of network. **Q1)** a) [4] Explain PCS Architecture with diagram. b) [5] OR If the user enters from Network A to Network B, how location is updated **Q2)** a) in GSM Architecture? Explain with diagram. [4] Draw and explain mobile computing architecture. [5] b) **Q3**) a) Explain in detail Network switching subsystem available in GSM architecture. Explain their functionality. [5] Explain the VLR overflow control and alorithm OI - Registration. [5] b) OR Explain any 4 address identifiers in GSM architecture. **Q4**) a) [5] Explain SMS architecture with diagram. b) [5] **Q5**) a) Draw GPRS Architecture with interfaces and Explain. [9] Draw diagram of WAP protocol stack in detail and Explain wireless b) Transport layer security. [8] OR Explain WAP Architecture with diagram. [9] **Q6**) a) Write short note on WCDMA. b)

[8]

| <b>Q7</b> ) a) | Which are the ke | y criteria | used for | determining | mobile | application |
|----------------|------------------|------------|----------|-------------|--------|-------------|
|                | architecture?    |            |          |             |        | [9]         |

b) Draw phases of mobile application development and explain any 3. [8]

OR

- **Q8)** a) List down the various phases required for Client Development Process and explain in detail. [9]
  - b) Explain wireless Internet architecture and give advantages of same. [8]
- **Q9)** a) Describe android OS architecture specific to role of Application framework and dalvik VM. [9]
  - b) Elaborate the challenges in Usability testing of mobile Applications. [8]

OR

- **Q10**)a) What is the meaning of performance, Scalability, modifiability and availability. Explain w.r.t. mobile applications. [9]
  - b) Explain user interface design principles for mobile applications. [8]

