SEAT No. :

[Total No. of Pages : 2

[5254]-669

B.E. (Computer Engineering)
PERVASIVE COMPUTING
(2012 Pattern) (Elective - II) (Semester-I)

Time : 2½ Hours]   *[Max. Marks : 70*

Instructions to the candidates:

1) *Attempt Q1 or Q2, Q3 or Q4, Q5 or Q6, Q7 or Q8, or Q9 or Q10.*
2) *Figures to the right indicate full marks.*
3) *Neat diagrams must be drawn wherever necessary.*
4) *Assume Suitable data if necessary.*

Q1) a) What is transparency? What is openness? Are they complementry to each other?   **[5]**

   b) Define context? Comment on context awareness?   **[5]**

OR

Q2) a) Explain dynamic adaptation in IBM'S transcoding application.   **[5]**

   b) Comment on improvement in device technology how devices can be more suitable for pervasive computing?   **[5]**

Q3) a) What is posthuman model of UbiCom? How sense of presence and telepresence is generated in UbiCom?   **[6]**

   b) How the brain computer interface is facilitated?   **[4]**

OR

Q4) a) Discuss any application of hidden UI in wearable computing.   **[4]**

   b) Differentiate between.   **[6]**

   i) Virtual vs. Augmented reality.

   ii) Mediated vs. Embodied Reality.

P.T.O.

Q5) a) What is middleware? What can be adapted in middleware. **[6]**
b) Explain core capabilities of context aware applications. **[6]**
c) How service discovery helps in middleware adaption. Explain in brief with example. **[4]**

OR

Q6) a) How data adaption is done in Ubicom? Explain. **[6]**
b) What is mobile agent? Give architecture? Mobile agent? **[6]**
c) Write short note on mobile middleware. **[4]**

Q7) a) Differentiate between security and Privacy in Ubicom? **[6]**
b) Explain kerberos as authentication algorithm. **[7]**
c) Discuss different defense strategies for network security. **[4]**

OR

Q8) a) Explain V-SAT Security models in Ubicom? **[6]**
b) Discuss blowfish algorithm in detail for authentication. **[7]**
c) Compare different collaborative defense strategies. **[4]**

Q9) a) Discuss challenges in Ubicom? How they can be overcome? **[9]**
b) Differentiate between machine intelligence and human intelligence. **[8]**

OR

*Q10)*a) Discuss device interaction in smart devices. **[8]**
b) Write Short note on: **[9]**
   i) Smart watch
   ii) Smart boards, Pads and Tabs.
   iii) Smart meeting Rooms.

○○○