

Total No. of Questions : 10]

SEAT No. :

P3223

[Total No. of Pages : 2

[5354]-679

B.E. (Computer Engineering) (Semester - I)

PERVASIVE COMPUTING

(2012 Pattern) (Elective - II (b))

Time : 2½ Hours]

[Max. Marks : 70

Instructions to the candidates:

- 1) *Neat diagrams must be drawn wherever necessary.*
- 2) *Figures to the right indicate full marks.*
- 3) *Assume suitable data, if necessary.*

- Q1)** a) Discuss SMART DUST and Tiny OS. [4]
b) Explain context aware computing and types of contexts with example. [6]

OR

- Q2)** a) How cooltown model can be implemented at workplace discuss. [4]
b) Explain location management principles and techniques in mobile computing. [6]

- Q3)** a) Define planned action and situated action. [4]
b) Brief about device connectivity with suitable examples and available Technologies for. [6]

OR

- Q4)** a) Why user interfaces are primarily visible? Discuss benefits of using visual interfaces auditory interfaces. [6]
b) Explain context aware applications and steps to develop them. [4]

- Q5)** a) Explain mobile and wireless security issues. [8]
b) Explain core capabilities for context aware applications. [8]

P.T.O.

OR

- Q6)** a) Discuss actuator services in detail. [8]
b) Explain experimental comparison of collaborative defence strategies for network security. [8]
- Q7)** a) Define Authentication and authorization in detail with respect to pervasive computing. [8]
b) Explain Human - Computer interaction in detail. What is Human - Device interaction, explain. [8]

OR

- Q8)** a) Explain social networking and media exchange example for smart interaction. [8]
b) Explain following with respect to security: [8]
i) Man in the middle attack.
ii) Replay attacks.
- Q9)** a) Explain graduated levels and system support for each of the Ubicom property. [6]
b) Differentiate between Human intelligence and machine intelligence. [6]
c) Compare & contrast the following techniques for lowering energy use: [6]
i) MEMS
ii) Energy harvesting
iii) Ultra-capacitor and fuel cells.

OR

- Q10)** a) Explain various issues related to distributed systems interaction to be more intelligent. [8]
b) Review following technologies. Justify whether they are sustaining or disruptive. [10]
i) Mobile
ii) Radio
iii) email
iv) e- Book
v) e - Commerce.

