

Total No. of Questions : 10]

SEAT No. :

**P4007**

**[5561]-714**

[Total No. of Pages : 2

**B.E. (Information Technology)  
UBIQUITOUS COMPUTING  
(2015 Pattern) (Semester - II) (414463)**

*Time : 2½ Hours]*

*[Max. Marks : 70*

*Instructions to the candidates:*

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

**Q1) a)** What are the features of ubiquitous computing? **[5]**

b) Explain all core properties of pervasive computing? **[5]**

OR

**Q2) a)** List and explain three main types of environment context? **[5]**

b) Explain micro-actuation and sensing (MEMS) in detail? **[5]**

**Q3) a)** Explain smart devices under CPI and CCI? **[5]**

b) Explain types of transparency mobile services? **[5]**

OR

**Q4) a)** Explain proxy based service access and give its disadvantages? **[5]**

b) Explain three major types of robot? **[5]**

**Q5) a)** Explain human entered design lifecycle in detail with diagram? **[8]**

b) List out all handling limited key input and explain it in detail? **[8]**

OR

**Q6) a)** Write short note on : **[9]**

i) Multi-modal visual interface

ii) Gesture interface

iii) Tangible interface

b) Describe user models and its acquisition and representation? **[7]**

**P.T.O.**

- Q7) a)** Define and explain all ways of addressing privacy in ubiquitous system? [8]  
**b)** Explain Solov's taxonomy of privacy with diagram? [8]

OR

- Q8) a)** Describe all privacy difficulties and challenges of RFID tag? [8]  
**b)** Describe all challenges to privacy for ubiquitous computing? [8]

- Q9) a)** Write short note on : [12]  
i) Network protocol suits  
ii) Routing and inter-networking  
iii) PSTN voice network  
iv) Configuration management  
**b)** Describe wireless data network with its types? [6]

OR

- Q10) a)** Write short on : [8]  
i) Personal area network  
ii) Body area network  
**b)** Explain multi-path routing in mobile ad hoc network (MANET) with neat diagram. [6]  
**c)** Explain mesh network and overlay network with diagram. [4]

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