PSG COLLEGE OF ARTS & SCIENCE
(AUTONOMOUS)

BSc DEGREE EXAMINATION DECEMBER 2023
(Fifth Semester)

Branch – COMPUTER TECHNOLOGY

DISCIPLINE SPECIFIC ELECTIVE – I :

PERVASIVE COMPUTING

Time: Three Hours   Maximum: 50 Marks

SECTION-A (5 Marks)
Answer ALL questions
ALL questions carry EQUAL marks   (5 x 1 = 5)

1 The language used to ease migration from existing internet applications to mobile
Applications _____.
   - (i)   WML
   - (ii) compact HTML
   - (iii) DHTML
   - (iv) HTML

2 The battery which uses gel material for electrolytes is _____.
   - (i)   Carbon
   - (ii) Ni Cad
   - (iii) NiMH
   - (iv) Li ion

3 In speech recognition system, speech signals are converted into _____.
   - (i)   microwave signals
   - (ii) Binary data
   - (iii) radio signals
   - (iv) Frequency space

4 The low cost wireless communication future in PDAs is _____.
   - (i)   Bluetooth
   - (ii) infra red communication
   - (iii) Microwave
   - (iv) None of these

5 The pattern is a good choice when used to implement web applications is _____.
   - (i)   MVC Pattern
   - (ii) Multiple Controller
   - (iii) CSV
   - (iv) None of these

SECTION - B (15 Marks)
Answer ALL Questions
ALL Questions Carry EQUAL Marks   (5 x 3 = 15)

6 a Make a note on PDAs involvement in modern Healthcare systems.
   OR
   b State that how the mobile devices improve the processes in retail industry

7 a Describe Speech recognition technology in mobile devices.
   OR
   b Analyze the Biometric authentication system in device technology.

8 a Compare Push Access Protocol and Push over Air protocol.
   OR
   b Identify what are the security issues in current WAP architecture.

Cont...

9   a   Illustrate the device characteristics of PDAs.
OR
     b   Classify the different types of connection in mobile devices.

10 a   Provide four major kinds of role required in web application development team.
OR
     b   Lists some challenges of pervasive computing application architecture.

SECTION -C (30 Marks)
Answer **ALL** questions
ALL questions carry **EQUAL** Marks   (5 x 6 = 30)

11 a   Analyze how the car information system uses pervasive computing.
OR
     b   Summarize what are all the steps involved in typical WAP email session.

12 a   Categorize some main features of RTSJ.
OR
     b   Classify different type of cellular systems for mobile communications.

13 a   Elucidate the Java Speech API systems and its componenets.
OR
     b   Illustrate the components of WAP Architecture in detail.

14 a   Summarize the software components of PDAs in detail.
OR
     b   Describe the three different types of browsers used in mobile devices.

15 a   Prepare an example code for Security State objects in pervasive computing
       applications
OR
     b   Demonstrate the securing pervasive applications using an authentication proxy.

Z-Z-Z   END