



# VIT<sup>®</sup>

Vellore Institute of Technology  
(Deemed to be University under section 3 of UGC Act, 1956)

REG.NO.: 22BCT0

SLOT: F1+TF1

**SCHOOL OF COMPUTER SCIENCE AND ENGINEERING**  
**CONTINUOUS ASSESSMENT TEST - I**  
**FALL SEMESTER 2025-2026**

|                             |                                                   |
|-----------------------------|---------------------------------------------------|
| Programme Name & Branch     | : B.Tech CSE                                      |
| Course Code and Course Name | : BCSE315L Wearable Computing                     |
| Faculty Name(s)             | : Dr. Badrinath N, Dr. Anuradha G                 |
| Class Number(s)             | : VL2025260102399, VL2025260102400                |
| Date of Examination         | : 22 - Aug - 2025 (Friday) (09.30 AM to 11.00 AM) |
| Exam Duration               | : 90 minutes                                      |

Maximum Marks: 50

**General instruction(s):**

- Answer All Questions
- M - Max mark; CO - Course Outcome; BL - Blooms Taxonomy Level (1 - Remember, 2 - Understand, 3 - Apply, 4 - Analyse, 5 - Evaluate, 6 - Create)

**Course Outcome:**

1. Learn about software, hardware tools, protocols and components required for Wearable Computing.
2. Understand basics of Body Sensor Networks (BSN) and its Programming Framework.

| Q. No | Question                                                                                                                                                                                                                                                                                                                                                 | M  | CO |
|-------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----|----|
| 1.    | Explain the role of ARM processors and System on Chip (SoC) in wearable computing along with the internal components for both ARM and SoC.                                                                                                                                                                                                               | 10 | 1  |
| 2.    | A large hospital is implementing a new "Smart Patient Monitoring System" that integrates IoT-enabled wearables. Compare the wearable with IoT devices. List out the pros and cons for the above scenario along with the features.                                                                                                                        | 10 | 1  |
| 3.    | Explain how a user can control Notification priority levels on an Android 5 device. Describe the different settings (NONE, PRIORITY, and ALL) and how they affect the behaviour of notifications and alerts.                                                                                                                                             | 10 | 1  |
| 4.    | Set up a new Google Fit app from a developer's perspective, your answer should include the steps required in the Google Developer Console, the role of the application's SHA1 fingerprint, and the dependency on the Google Play Services. Discuss in detail about the google client class and its sequence diagram related to the interaction performed | 10 | 1  |
| 5.    | Discuss the BSN hardware architecture considering minimum five application domain with its functionality of main components that includes the sensing unit (transducer and ADC), processing unit (MCU), transceiver unit, external memory, and power supply.                                                                                             | 10 | 2  |

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