

COURSE CODE(CREDITS): 21M1WEC135 (3)

MAX. MARKS: 25

COURSE NAME: Signal Processing in IoT

COURSE INSTRUCTORS: Dr. Shruti Jain

MAX. TIME: 1 Hour 30 Min

*Note: (a) All questions are compulsory.*

*(b) Marks are indicated against each question in square brackets.*

*(c) The candidate is allowed to make Suitable numeric assumptions wherever required for solving problems*

1. Explain different blocks of Neuro-Detect for automatic seizure detection for smart healthcare. (CO3, 3)
2. "The backbone of smart healthcare is the Internet of Healthcare Things (IoHT)". Justify this statement with the help of example. (CO1, 3)
3. The adaptive outlier detection modeling approach is established for outlier detection in real-world data set. Explain the three-level hybrid model to justify statement. (CO2, 3)
4. Explain eSeiz. How it is important in the Internet of Medical Things (IoMT). (CO3, 3)
5. Shyam wants to design Wireless monitoring system for improving cardiac healthcare. Explain him the full system. (CO3, 3)
6. Name the model shown in Fig 1 and Fig 2. Explain every block of the model shown in Fig 1. Explain the difference between Fig 1 and Fig 2. (CO1, 5)

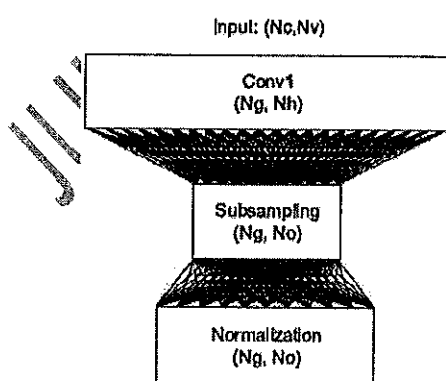


Fig 1

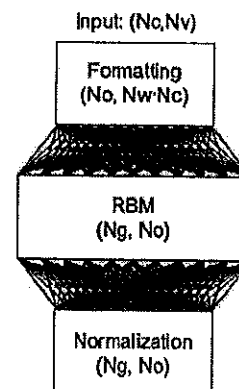


Fig 2

7.

(CO3, 5)

- i. What are the categories of Image processing or enhancement techniques?
- ii. What would happen if low or high pass filters are repeatedly applied to an image?
- iii. Which process expands the range of intensity levels in an image so that it spans the full intensity range of the display?
- iv. What are grey level intensity transformations?
- v. How the derivatives are obtained in edge detection during formulation?

JUIT TEST-2 EXAMINATION- OCT-2023