

**M. SC. (Computer Science) SEM – II (Choice Based Credit & Grade System) : WINTER - 2018**

**SUBJECT: ELECTIVE: b) EMBEDDED COMPUTING**

Day: Monday  
Date: 15/10/2018

**W-2018-1050**

Time: 03.00 PM TO 06.00 PM  
Max. Marks: 60

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**N.B:**

- 1) All questions are compulsory.
  - 2) Figures to the right indicate full marks.
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**Q.1** Explain categories of embedded system in detail. **(15)**

**OR**

Explain the role of protocol convertor in satellite communication equipment.

**Q.2 A)** Answer **ANY ONE** of the following: **(08)**

- a) Explain the development of embedded system with respect to choosing the development Platform and code optimization.
- b) Explain working of direct memory Access with neat diagram.

**B)** Answer **ANY ONE** of the following: **(07)**

- a) Explain any one technique in DAC with proper diagram.
- b) Describe working of IrDA with necessary diagram.

**Q.3** Answer **ANY THREE** of the following: **(15)**

- a) Explain use of Assembly language and higher level language in embedded system.
- b) Explain any one application of embedded system in consumer electronics.
- c) Explain three possible states of Task.
- d) Explain transfer rate and latency with reference to I/O interfacing.
- e) Explain the tools required for the development of embedded systems.

**Q.4** write short notes on **ANY THREE** of the following: **(15)**

- a) UART
- b) Universal serial Bus
- c) Hardware Architecture of embedded system.
- d) GPS
- e) Real time operating system

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