

M. SC. (Computer Science) SEM – II (Choice Based Credit & Grade System) : SUMMER - 2019

SUBJECT: ELECTIVE: b) EMBEDDED COMPUTING

Day: Tuesday
Date: 16/04/2019

S-2019-1252

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

N.B:

- 1) All questions are compulsory.
 - 2) Figures to the right indicate full marks.
-

Q.1 Draw block diagram of GPS system and explain functions of each block. **(15)**

OR

Explain development of embedded system with respect to

- i) Determine Requirement
- ii) Choose operating system
- ii) Choose processor

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

- a) Draw diagram of serial interface and explain its working in detail.
- b) Explain synchronization, Transfer Rate, Latency and polled waiting loops.

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

- a) Explain any one technique in ADC with appropriate diagram.
- b) Explain hardware architecture of embedded system.

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

- a) Write difference between Assembly language and higher level language.
- b) Explain priority interrupt I/O with diagram.
- c) Explain with neat diagram biomedical system using embedded system.
- d) Draw block diagram of DMA controller and explain function of each block.
- e) Explain three possible states of task.

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

- a) Development tools of embedded system
- b) Ethernet
- c) Interrupt Service Routine
- d) Real time operating system
- e) Interactive voice response system

* * * * *
