

5C7162

Roll No.

Total No of Pages: (6)

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M.C.A. V - Sem. (Mercy Back) Exam., Feb.-March - 2021

MCA-505D Elective-3 Embedded Systems

Time: 2 Hours

[To be converted as per scheme]

Max. Marks: 60

Min. Marks: 24

Instructions to Candidates:

Question no. one is compulsory. Attempt any two question out remaining question number 2 to question no.5.

Use of following supporting material is permitted during examination. (Mentioned in form No. 205)

1. NIL

2. NIL

Q.1 Answer each of the following question in one line -

[20]

- (a) What is an embedded system?
- (b) What is DSP?
- (c) What is GPS?
- (d) What is PCI bus?
- (e) What is IEEE 1394?
- (f) What is Ethernet?
- (g) State the name of any two operating systems that are used in embedded systems.
- (h) What is buffer in embedded systems?
- (i) What is real time system?
- (j) What is the core of embedded system?

Q.2 Answer each of the following questions in not more than 50 words - [20]

- (a) Differentiate between Harvard and Von Neumann Architecture.
- (b) State and explain control system of Embedded System.
- (c) What is microcontroller? State any two applications of microcontrollers.
- (d) What is a cross compiler? Explain in brief.
- (e) Draw a block diagram of an embedded system for any automated electronic device.

Q.3 Answer each question in not more than 150 words - [20]

- (a) Differentiate between RISC and CISC controllers.
- (b) State and explain latest application market segments of embedded system.
- (c) Explain ADC and DAC. <https://www.rtuonline.com>
- (d) State and explain advantages of Networked Information Appliances.
- (e) State and explain Linux and Windows CE based development tools.

Q.4 Answer each question in detail - [20]

- (a) Explain hardware architecture and various components of embedded systems.
- (b) Explain various embedded system application.

Q.5 Attempt any one question- [20]

- (a) Differentiate between Embedded System and General Computing System.
- (b) Write short notes on -
 - (i) Classification of Embedded System.
 - (ii) Telecommunication System.
 - (iii) Industrial Automation.

OR

- (a) Explain Embedded System Development Process.
- (b) Explain the purpose of Embedded System in data collection and storage.