

B. N. BANDODKAR COLLEGE OF SCIENCE, THANE
S. Y. B. SC. (INFORMATION TECHNOLOGY) SEMESTER – IV EXAMINATION; APRIL
2015
COURSE CODE – USIT405

Duration: 2½ Hrs

Marks: 75

Total

N.B. 1. All questions are compulsory.

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|-------------|---|-----------|
| Q. 1 | Answer any two out of following | 10 |
| | a Define embedded system? Explain the microprocessors? Illustrate with proper diagram | |
| | b Explain the classification of embedded system? | |
| | c State difference between General purpose system and embedded system? | |
| | d Explain embedded firmware? | |
| Q. 2 | Answer any two out of following | 10 |
| | a Explain any three Quality attributes in detail? Illustrate with proper example? | |
| | b Write a short note on | |
| | a. Application Specific domain | |
| | b. Re active and Real time | |
| | c Write a short note on per unit cost and revenue in detail? | |
| | d Explain application specific embedded system –washing machine? | |
| Q. 3 | Answer any two out of following | 10 |
| | a Explain the concept of infinite loop? Illustrate with an example? | |
| | b Explain the compiling concept in detail? | |
| | c Write a c program turns on an LED attached ports, waits and turn it back off? | |
| | d Write a short note on downloading and debugging concept in detail? | |
| Q. 4 | Answer any two out of following | 10 |
| | a Explain mapped I/O in detail? | |
| | b Write a short note on Interrupt service Routine and vector table in embedded hardware? | |
| | c Write a short note on processor family of embedded system? | |
| | d State difference between RAM and ROM? | |
| Q. 5 | Answer any two out of following | 10 |
| | a Explain simple, duplex and semi duplex communication in detail? | |
| | b Explain how control signal occurred between peripherals and micro-processor? Illustrate with a proper diagram? | |
| | c Write a short on watch dog timer? | |
| | d Explain the selection process in embedded system? Illustrate with a proper diagram? | |
| Q. 6 | Answer any two out of following | 10 |
| | a Write a short note assemblers, compiler and linkers in detail? | |
| | b Explain the simulators in detail? | |

- c Explain the trends in embedded industry in detail?
- d Write a note on emulators?

Q.7

Answer any three out of following

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- a Explain any three purpose of embedded system? Illustrate with proper example?
- b Write a short note on Distributed embedded system in detail.
- c Write a short note on system bus of embedded system?
- d Explain the types of ROM in detail?
- e Explain the four basic types of internal register in detail?
- f Write a short note on embedded product development life cycle?

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