

## Incourse

- 1.a) What is an embedded system? Mention some applications of embedded systems.  
b) Describe the design of an embedded system with examples.
- 2.a) Differentiate between regular and visual programming languages.  
b) Define visual programming language. Write down the advantages and disadvantages of visual programming language.
- 3.a) Write down the general hardware organization of the computer system with a diagram.  
b) Define system programming and describe the components of it.
- 4.a) Explain the micro flowchart for ADD instruction step by step.  
b) Describe briefly the memory and instruction of machine structure 360/370.
- 5.a) What is MDI? Describe the following terms: frame window, client window and child window.  
b) Describe the child window creation and multiple document menus.
- 6.a) Draw and describe the general machine structure.  
b) Differentiate between application software and system software.

## Semester

- 1.(a) What is an embedded system? Write down the applications of embedded systems.  
(b) Define visual programming. Differentiate between regular programming language and visual programming language.  
(c) Discuss the components of system programming.  
(d) What do you mean by OS? Write down the importance and functions of the operating system.
- 2.(a) Briefly describe general machine structure with diagrams.  
(b) Explain general approach to a new Machine.  
(c) Describe the following terms:  
    (a) Child Window Creation  
    (b) Multiple Document Accelerators  
    (c) Icon Title Windows  
(d) Explain IOT in embedded system programming with examples.
- 3.(a) What is assembler? Write the features of a machine dependent assembler.  
(b) Explain the procedure of the multi-pass compiler in detail.  
(c) Write the features of a machine independent loader.  
(d) What is XML? What are the differences between XML & XSLT?

- 4.(a) Describe briefly the kernel log level string.
  - (b) What types of shells are there in Linux? Explain it.
  - (c) What is multithreading? What are the issues involved with multiple threads?
  - (d) Explain the advantages and disadvantages of concurrency.
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- 5.(a) Define server? Explain the different types of servers.
  - (b) Explain web based application development.
  - (c) What is ActiveX? Explain ActiveX control and ActiveX components.
  - (d) Write the steps for a CGI program to execute successfully.
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- 6.(a) Write a short note on fragmentation and paging.
  - (b) Describe different types of APIs and API protocols.
  - (c) Explain how OLE automation works?
  - (d) What is SOAP? Explain the structure of a SOAP message with example