Reg. No. : ☐☐☐☐☐☐☐☐☐☐☐

R 3416

B.E./B.Tech. DEGREE EXAMINATION, NOVEMBER/DECEMBER 2007.

Seventh Semester

Information Technology

IT 1401 — COMPONENT BASED TECHNOLOGY

(Regulation 2004)

Time : Three hours

Maximum : 100 marks

Answer ALL questions.

PART A — (10 × 2 = 20 marks)

1. What is a component? Give an example.

2. Write the purpose of "Directory Services".

3. What is introspection?

4. How will you create a JAR file in Java Beans?

5. Give the purposes of IDL in CORBA.

6. What is ORB?

7. Explain the initialization and termination routines in COM.

8. Write a short note on User Control Object in ActiveX.

9. What are the operations of EJB containers?

10. Write any four testing tools for testing the components in software.

PART B — (5 × 16 = 80 marks)

11. (a) Explain in detail the component architecture with a neat block diagram.

Or

(b) Explain in detail the following :

(i) Interfaces. (6)

(ii) Callbacks. (4)

(iii) Components and Middleware. (6)

12. (a) Design and implement an Alarm Timer GUI component using Java Beans.

Or

(b) What is RMI? How a component can be accessed with the help of RMI-IIOP? Explain it with an example.

13. (a) Develop a simple 'Hello World' application using CORBA development process.

Or

(b) Explain the following discovering services available in CORBA :

(i) Naming Service. (8)

(ii) Directory Service. (8)

14. (a) Develop an ActiveX control for displaying an image with scrollbars and to allow the stretching of the image in the window.

Or

(b) How will you create a .NET component for displaying daily greetings (Good Morning, Afternoon, Evening and Good Day etc.) message to a remote system?

15. (a) Explain in detail the CLR contexts and channels in component based software development.

Or

(b) Explain in detail the 'Black Box' framework and the issues related to it in the construction of components.