Hall Ticket Number:											

Code No. :321

## VASAVI COLLEGE OF ENGINEERING (Autonomous), HYDERABAD M.C.A. III Year I-Semester Main Examinations, December-2017

## **Middleware Technologies**

Time: 3 hours

Max. Marks: 70

Note: Answer ALL questions in Part-A and any FIVE from Part-B

## Part-A $(10 \times 2 = 20 \text{ Marks})$

- 1 List out different types of JDBC Drivers.
- 2 Mention the use of RPC.
- 3 What is difference between ServletConfig and ServletContext?
- 4 What are advantages of using JSP?
- 5 What are the key components of persistence API in EJB?
- 6 List the different types of Beans.
- 7 What is 'enum' in C#?
- 8 What is the significance of Framework Class Library?
- 9 What is the importance of ADO.NET?
- 10 Write the syntax of FileStream class in C#.

## Part-B $(5 \times 10 = 50 \text{ Marks})$

11.	a) Explain Client/Server building blocks.	[5]
	b) Explain basic steps to create JDBC application.	[5]
12.	a) Discuss about JSP Design Strategies.	[5]
	b) Explain servlet life cycle.	[5]
13.	a) Draw the Software Architecture of EJB. Explain the role of its various constituents.	[5]
	b) List the steps involved in building and deploying EJB.	[5]
14.	a) Explain in detail about reference and value types with an example.	[5]
	b) Write a program in C# to check whether the given string is palindrome or not without using predefined methods.	[5]
15.	a) Explain different types of Windows Forms Controls with examples.	[5]
	b) List and describe various classes and methods used to retrieve and changes information about files in the namespace System.IO.	[5]
16	a) Compare RPC and messaging.	[4]
	b) List out and describe implicit objects supported by JSP.	[6]
17	Answer any two of the following:	
	a) Explain the responsibilities of various roles in an EJB application.	[5]
	b) Explain about .NET architecture and how it supports application development.	[5]
	c) Write a C# program to create a file.	[5]