

COMPUTER SCIENCE

B. Sc. III
Semester-VI
2023-2024

6S : Advanced Java & VB.net

Exam & Internal Assessment Scheme and Syllabus



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B.Sc. Part THREE (Semester-VI)
COMPUTER SCIENCE

The examination in Computer Science will comprise one theory Paper and Practical examination for each semester. The theory paper will be of 3 Hours Duration and carry 80 marks. The Practical examination will be of 4 Hrs duration and carry 50 marks.

Candidates are required to pass separately in theory and practical.

Examination Scheme			
	Theory		Practical
	Theory Paper	Internal Assessment	
Paper	One Theory Paper of 80 Marks	Project Assignment, Class Test, *Seminar	One
Duration	3 Hours	Semester	4 Hours
Maximum Marks	80	20	50
Total	100		50
Minimum Marks for Passing	40		20

Internal Assessment

The internal assessment marks shall be awarded on the basis of project assignment, class test, Seminar, Study tour, Industrial visit, Visit to educational institutions and research organization, field work, group discussion or any other innovative practice/activity. The marking scheme for assignment and class test shall be as under :-

Sr. No.	Practice / Activity	Details of marking scheme	Maximum Marks
1	Project Assignment	On latest developments in the subject in 100-200 words	04
2	Class Test	One class test	10
3	*Seminar, Study tour, Industrial visit, Visit to Educational institutions, Research organization, field work, group discussion or any other innovative practice/activity.	Any one of the activity with report of the activity.	06

The test with maximum 30 marks be conducted for the students and the marks be allotted based on the performance of the students as under :-

Unit Test score (out of 30)	Marks allotted (out of 10)
For the score 24 and above	10
From 18 to 23	07
From 11 to 17	05
From 0 to 10	00

Paper-6S
Advanced Java & VB.net

SYLLABUS

(Implemented from the session 2019-2020)

- UNIT I : Exception Handling and Multithreading: Exception Handling:** Concept of Exception handling, Type of Exception, Try, Catch, and Finally, Multiple Catch blocks, Nested Try Statements, throw, throws. **Multithreading:** Multithreading concept, life cycle, creating and running thread, thread priority.
- UNIT II : Applet:** Introduction to Applet, Applet life cycle, HTML applet tag with all attributes, Running the applet, Passing parameters to applets, Displaying using applet viewer, getDocumentBase() and getCodeBase() methods, Applet context, Applet vs Application, Graphics introduction, Graphic class, draw lines, circle, rectangle, ellipse.
- UNIT III : Event Handling and AWT:** Introduction, Event delegation model, Java AWT event description, sources of event, Event listener interfaces, Adapter classes, Inner classes. AWT (Abstract Window Toolkit): Introduction, AWT Controls Label, Button, Checkboxes, Lists, ScrollBar, TextField, TextArea, Layout manager.
- UNIT IV : Windows Applications: Forms:** Adding Controls to Forms, Handling Events, MsgBox, InputBox, Working with Multiple Forms, Setting the Startup Form, SDI & MDI Forms, Handling Mouse & Keyboard Events, **Common controls:** Text Boxes, Rich Text Boxes, Labels, Buttons, Checkboxes, Radio Buttons, Group Boxes, List Boxes, Checked List Boxes, Combo Boxes, Picture Boxes, Scroll Bars, Tool Tips, Timers, properties–methods.
- UNIT V : Object Oriented Programming: Classes and Objects:** Class definition, Creating objects, Defining Member functions, Methods and Events, Attaching a class with form, Delegates. **Exceptions Handling:** Exception classes in .net framework, Structured and Unstructured exceptions, tracing errors, breakpoints, watch, Quick watch.
- UNIT VI : Data Access with ADO.Net,** accessing data with Server Explorer, Accessing Data with data Adaptors and Data sets, Creating a new data connection, creating and populating Data set, displaying data in Data Grid, selecting a data provider, Data accessing using Data adapter Control, Binding Data to Controls.

Books Recommended:

- 1) Steven Holzner, Visual Basic .NET Black Book
- 2) Rebecca Riordan, VB.NET for Developers, Keith Franklin, SAMS
- 3) Jason Beres, Sams Teach Yourself Visual Studio .NET 2005 in 21 Days,
- 4) Jesse Liberty, Learning Visual Basic
- 5) The Complete Reference JAVA2 by Herbert Schildt (Tata McGraw)
- 6) The Complete Reference JAVA by Patrik Noughton
- 7) Programming with JAVA - A Primer : By E.Balguruswamy (Tata McGraw)
- 8) Programming in JAVA : By S.S.Khandare (S.Chand)
- 9) Teach Yourself 'Java' in 2 Hrs : By Sams.
- 10) Java for You : By P. Koparkar