

CLASSXI(PRACTICAL)(2014-15)

S.N	Description	Marks
1	Problem Solving using Java	12
2	SQL Queries	4
3	Practical Records: <ul style="list-style-type: none">• Productivity Tools• Simple Problems using Java• SQL Queries• IT Applications	10
4	Viva Voce	4
	Total	3

Evaluation of Practical Examination

1. Problem Solving using Java

Student is required to solve programming problems based on all concepts covered in theory throughout the year and maintain a record of these in the practical file. Student will be given a problem to be solved using Java during final practical examination to be conducted at the end of the academic session.

2. SQL Queries

Students will be trying out SQL queries in MySQL throughout the year along with course coverage in theory. Student will be asked to write 4 queries based on one or two tables during final practical examination to be conducted at the end of the academic session.

3. Practical Record File

A practical record file is required to be created during the entire academic session. It should be duly signed by the concerned teacher on regular basis and is to be produced at the time of Final Practical Examination for evaluation. It should include the following:

- At least 10 solutions of simple problems using IDE based Java (refer to Appendices 'A' & 'B').
- At least 3 IT applications - problem-solving framework.
- At least 20 SQL queries on any database.

4. Viva Voce

Students will be asked oral questions during practical examination to be conducted at the end of the course. The questions will be from the entire course covered in the academic session. Out of 6 marks, 2 marks are allotted to test student's understanding of basic computer hardware and their functions.

S.No.	TypologyofQuestions	VeryShort Answer(V SA) (1Mark)	ShortAnswer-I (SA-I) (2Marks)	ShortAnswer-II(SA-II) (4Marks)	LongAnswer(L A) (6Marks)	Total Marks	%Weightage
01.	KnowledgeBased	4	3	2		18	26
02.	ConceptualUnderstanding	4	5	1		18	26
03.	ReasoningBased	4		2	1	18	26
05.	SkillBased		1	2	1	16	22
	TotalMarks	12	9	7	2	70	100%

1. Nochapterwiseweightage.Caretobetakentocoverallthechapters.
2. Theabovetemplateisonlyasample.Suitableinternalvariationsmaybemadeforgeneratingssimilartemplateskeeping theoverall weightagetodifferentformof questionsand typology ofquestionssame.

APPENDIX 'A'

Swing Control Methods & Properties

Class:	JbuttonjButto
SwingControl:Met	n
hods:Properties:	getText(),setText() Background,Enabled,Font,Foreground,Text,Label
Class:	JlabeljLabe
SwingControl:Met	l
hods:Properties:	getText(),setText() Background,Enabled,Font,Foreground, Text
Class:	JtextFieldjTe
SwingControl:Met	xtField
hods:Properties:	getText(),isEditable(),isEnabled(),setText() Background,Editable,Enabled,Font,Foreground,Text
Class:	JradioButtonj
SwingControl:Met	RadioButton
hods:Properties:	getText(),setText(),isSelected(),setSelected() Background,ButtonGroup,Enabled,Font,Foreground,Label,Selected,Text
Class:	JcheckBoxj
SwingControl:Met	CheckBox
hods:Properties:	getText(),setText(),isSelected(),setSelected() ButtonGroup, Font,Foreground,Label,Selected, Text
Class:	ButtonGroupj
SwingControl:Met	ButtonGroup
hods:Properties:	Add
Class:	JcomboBoxjComboBo
SwingControl:Met	x
hods:Properties:	getSelectedItem(),getSelectedIndex(),setModel() Background,ButtonGroup,Editable,Enabled,Font,Foreground,Model,SelectedIndex,SelectedItem,Text
Class:	JlistjLis
SwingControl:Met	t
hods:Properties:	getSelectedValue() Background,ButtomGroup,Editable,Enabled,Font,Foreground,Model,SelectedIndex,SelectedItem,Text
Class:	Jtablej
SwingControl:Met	Table
hods:	addRow(),getModel()

Properties:	model
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Class: SwingControl:Met hods:Properties:	JoptionPaneshowMes sageDialog()
Class: SwingControl:Met hods:Properties:	DefaultTableModel getRowCount(),removeRow(),addRow()

CommonlyusedMethods

Class	Methods
Integer	parseInt(),toDouble(),toString()
String	concat(),length(),substring(),toDouble(),toLowerCase(),toUpperCase(),trim()
Double	parseDouble(),toString(),toInt()
Math	pow(),round()

DatabaseConnectivityMethods

Class	Methods
Connection	createStatement(),close()
DriverManager	getConnection()
Statement	executeQuery()
ResultSet	next(),first(),last(),getString()
Exception	getMessage()
System	exit()

Note: The visual properties of any of the elements and Data connectivity methods (the properties/methods, which are not highlighted in the above tables) will not be tested in the Theory examination but may be used by the student in the Practicals and Projects.

Sample Guidelines for GUI Programming

1. To display a message using Label, TextBox, MessageDialog using simple GUI applications.
2. To concatenate two text entries and display using simple GUI application.
3. To perform a simple arithmetic operation (+, -, *, /) and display the result in MessageDialog or TextBox using simple GUI application.
4. To perform simple arithmetic operation (+, -, *, /) and display the result in TextBox using simple GUI application.
5. To make simple decision making (if statement) solution and display relevant message using GUI application (Example - Problems related to Eligibility for a given value of Age, "Profit" or "Loss" messages for given values of Cost Price and Sale Price, Grade Display for given values of Marks of students, etc.).
6. To create a simple GUI application to perform both arithmetic and logical operation together (Example - Total, Average and Grade calculation for given marks, Salary Calculation on different criteria).
7. To create a simple GUI application to perform an operation based on the criteria input by the user in a CheckBox or a Radio Button.
(Example 1: Find the Discount of an item on the basis of Category of item [Electrical Appliance / Electronic Gadget / Stationary specified using a Radio button] and its Cost [Below 1000 / Above 1000 / Equal to 1000 specified using a Radio button]).
(Example 2: Calculate the incentive of a Sales Person on the basis of his Sales Amount, Customer Feedback, Count of Customers specified using CheckBox)
8. To create a simple GUI application to change the property of a swing element based on the selection made by the user.
(Example 1: To change the background or Foreground color of any of the Swing elements of the form based on the color selected from a list.)
(Example 2: To change the foreground and background color of a label based on the values input / stored in a combo box.)
9. To create a simple GUI application for repeatedly doing a task based on the user input.
(Example: To display the multiplication table of a number input by the user.)
10. To store the data (Admission No., Name, Date of Birth, Class and Section) of 10 students in a table [Table] and find the total number of students in each class and section.

Sample Guidelines for Connectivity Problems

11. To create a simple GUI application that counts and displays the number of records present in a database table.
12. To create a simple GUI application that displays the records of a database table in a tabular format (using JTable) on the GUI form.
13. To create a simple GUI application that displays the records of a database table in a tabular format (using JTable) on the GUI form based on a criteria input by the user.
14. To create a simple GUI application to perform a calculation based on a value retrieved from a database table and a value entered by the user in a GUI application.

Know More (beyond syllabus):

Teachers may also motivate students to search for topics of emerging ICT technologies such as Web Services, Cloud Computing, SDK on Android, etc., for group discussions and presentations.