



### INFORMATICS PRACTICES

#### CBSE Class - XII

Time allowed: 3 hours

M.M: 70

**Note:**

- (i) All questions are compulsory
- (ii) Answer the questions after carefully reading the text

1. (a) Name any two most popularly used Internet browsers 1  
(b) Which protocol is used for transfer of Hyper Text documents on the internet? 1  
(c) Two doctors in the same room have connected their palm tops using Bluetooth for working on a group presentation. Out of the following, what kind of network they have formed. 1  
(d) Differentiate between a Hub and a Switch 2  
(e) Ms Anita has downloaded software from internet. It can be distributed and freely used by any one. Source code is not available. Name the software downloaded by her. 1  
(f) Raghav is using software, which has been downloaded by internet and is available for one month. After one month he has to pay license fee for further use. What software Raghav is using? 1  
(g) Distinguish between Open Source Software and Proprietary Software with reference to customizability of the software. 2  
(h) Write examples of one Proprietary and one Open source software. 1
2. (a) What is the purpose of break keyword while using the switch case statement? 1  
(b) Write HTML code for the following: 1  

**To provide hyperlink to a website <http://cbse.nic.in>**

  
(c) Write HTML code for display the following expression over Web Page:- 1

ITEM 1		ITEM 3
ITEM 4	ITEM 2	ITEM 5

- (d) Write two differences between a listbox and combobox 2
  - (e) What is XML? How is it different from HTML? 2
  - (f) Marks of a student is stored in a string variable strMarks. Marks are to be used in calculation. Write the Java statement to convert marks into double variable dblMarks. 1
  - (g) How are protected members different private members of a class 2
- 3.
- (a) Rakesh created a table in Mysql. Later he found that table is wrongly created and he wants to remove it. Name the command by which Rakesh can do it. 1
  - (b) Sanket wants to implement referential integrity in the tables being created. Which constraint should be used by Sanket while doing so? 1
  - (c) What are three transaction control statements in MySQL? Give example 2
  - (d) In students table ,out of rollno,name,address which column can be set as primary key and why? 1
  - (e) The itemno and cost column of a table "ITEM" are given below. 2

itemno	Cost
101	5000
102	NULL
103	4000
104	6000
105	NULL

Find the output of the following queries:

- a) SELECT AVG(cost) FROM ITEMS;
- b) SELECT cost+100 FROM ITEM WHERE itemno >102;

- (f) Prateek is not clear about the difference between the following two statements 2
  - (i) Select (9-4)\*3; (ii) Select (9-4)\*3 from emp;(if emp table have 3 rows).

Help him to understand the difference between these two.

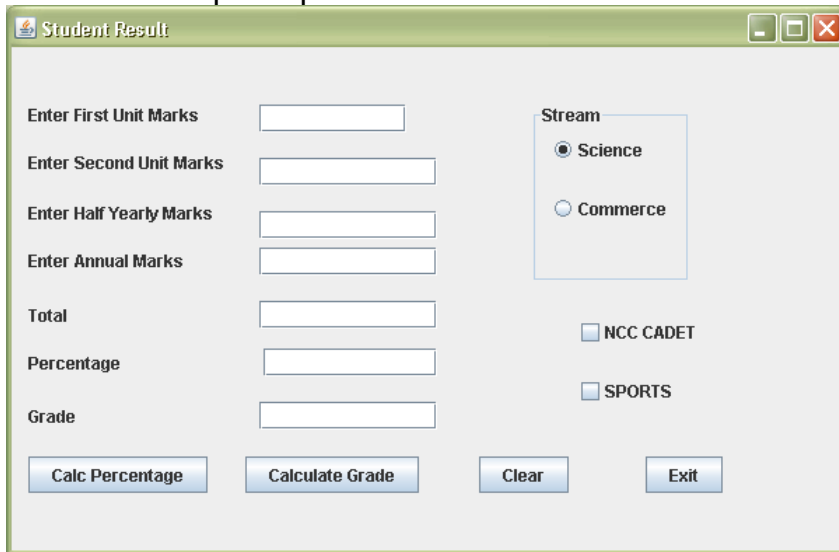
- (g) Reena created a table named student, she wants to see those students whose name ending with p. She wrote a query- 1

SELECT name.\* FROM student WHERE name="%p";

Help Reena to run the query by removing the errors from the query and rewriting it.

**Q 4 (a) Read the following case study carefully and answer the questions that follows –**

A School decided to computerized its result making work. The Interface of the application is given below. The maximum marks for First term and Second term is 150 and for Half Yearly 300 and for Annual is 400. The maximum total marks is 1000. A weightage of 2 % should be given if a student is either a NCC cadet or a sports person.



The grading scheme for the different streams is as follows :

Stream	Marks	Grade
Science	> 85	A+
	70 to 85	A
	50 to 70	B
	40 to 50	C
	<40	D

	> 75	A+
	60 to 75	A
Commerce	50 to 60	B
	40 to 50	C
	<40	D

- i. Initially the textfields totalTF, perTF, gradeTF and button gradeBTN should be disabled. (1)
- ii. On Clicking perBTN button , the total marks and Percentage should be calculated and displayed in respective textfield. (2)
- iii. On Clicking gradeBTN button. The grade should be checked and displayed in textfield. (2)
- iv. On clicking of clearBTN command button , all textfields and checkboxes should be cleared and radion button for science should be set to default. (1)
- v. On clicking of exitBTN button, the application should be closed. (1)

(b) Give the output of the following statements. 2

- a     jTextField1.setText(Integer.parseInt("21"+100)+100);
- b.     jTextField1.setText("CBSE\nFinal\tExam");

(c) The following code has some error(s).Rewrite the correct code underlining all the corrections made: 2

```
int SUM=0,Step=5;
int I;
For(i=0;i=<5;++i)
{
    Step+=5;
    Sum+=Step;
}
jTextField1.showText(Double.toString(SUM));
```

(d)Write the output of the following code 2



```
int j=10,x=0,i=0;
for(i=1;i<=4;i++){
if(i%2==0)
x = x+(i * j);
j=j - 2;
}
System.out.println(x);
```

(e) Write a method that accept a number as parameter and display the product of that number e.g. (234=2\*3\*4=24) 3

(f) Define a class Report with the following specification: 4

Data Members:

- adno            Integer
- name           String
- marks          5 floating points values
- average        average marks obtained
- getavg()        to compute the average obtained in five subjects

Member Methods:

- read\_info()    function to accept values for adno,name,marks, and invoke the function getavg()
- displayinfo() function to display all data members on the screen.

**Q6 (a) Write SQL commands to do the following:**

Create Table employee with the following given attributes and using the constraints 2

Field Name	Data type	Size	Constraints
ECODE	INT		PRIMARY KEY
ENAME	VARCHAR	20	NOT NULL
SEX	CHAR	1	NOT NULL
HIREDATE	DATE		
ADDRESS	VARCHAR	30	
PIN_CODE	NUMBER	6	CHECK PIN_CODE LENGTH = 6
JOB	VARCHAR	20	

GRADE CHAR 2 DEFAULT 'E1'  
 SAL DECIMAL 10 CHECK gross greater than 200  
 DEPTNO INT 6 REFER DEPTNO of DEPT Table

(b) Write SQL commands for the statement (i) to (iv) and give outputs for SQL queries (v) to (viii) on basis of the table LAB.

No	ItemName	CostPerItem	Quantity	DateOfPurchase	Warranty	Operational
1	Computer	60000	9	21/05/2006	2	7
2	Printer	15000	3	21/02/2007	4	2
3	Scanner	18000	1	29/08/2008	3	1
4	Camera	21000	2	13/06/2006	1	2
5	Hub	8000	1	31/10/2009	2	1
6	UPS	4000	5	21/05/2006	1	4
7	Plotter	25000	2	11/01/2010	2	2

- i. Select the item name purchased after 31/01/2007. 1
- ii. To list item name in ascending order of the date of purchase where quantity is more than 3 1
- iii. To count the number of items whose cost is more than 10000 1
- iv. To insert a new record in the LAB table . ( Assumed Data) 1
- v. Select MIN ( DISTINCT quantity ) from Labt where CostPerItem <15000. 1/2
- vi. Select COUNT (\*),warranty from LAB group by warranty. 1/2
- vii. Select SUM ( DISTINCT CostPerItem ) from paint. 1/2
- viii. Select AVG ( CostPerItem ) from LAB where DateOfPurchase<'01-01-2009' . 1/2

(C) Consider the tables given below:

Table: BOOKS

Book_id	Book_name	Author_name	Publisher	Price	Type	Quantity
B0001	Harry Potter	j.K. Rolling	BPB	525	Fiction	15
B0013	Vision 2020	A.P.J.A.Kalam	TMH	333	Informative	10
B0152	Let us C++	Y.K	BPB	625	Text	44
B1102	Applied Physics	H.C.Verma	-	745	Text	44
B2314	Godan	Premchand		125	Novel	50

Table : Issued

Book_id	DateofIssue	Member_id
B0152	15-12-2010	M008
B2314	25-10-2010	M112
B0001	31-12-2010	M110

With reference to these tables, write commands in MySql for (i) and (ii) 2

- (i) To display the name of the book issued to member M112
- (ii) To display the type wise no. of books and total quantity of all type of book.

(d) Write the output of the following queries: 5

- i. SELECT SQRT(81),SQRT(17),SQRT(-1);
- ii. SELECT LENGTH("Informatics Practices") – 2;
- iii. **SUBSTR(' WELCOME TO IP',-5,5);**
- iv. SELECT TRIM( LEADING '# ' FROM '#####IP IS JAVA ###');
- v. SELECT SUBSTR(UPPER(SUBSTR('God is great',2,8)),2);

(e) What is E R modelling? Identify the entities ,attributes and relationship in the following scenario: 2

“A person can be Male or Female.”

(f) How has our society benefited from e-governance? Write 2 points. 1

(g) Mr. Kartik is working as a Manager in Flash Telecomm. He wants to create the forms with the following functions. Choose appropriate controls from Text Field, Label, Radio Button, Check Box, List Box, Combo Box, Command Button and write in the third column. 2



SNo	Control Used to	Control
1	Enter Name of Customer	
2	Enter Mobile No.	
3	Select Connection Type	
4	Display total Amount of Bill	

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