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गुवाहाटी संभाग

Kendriya Vidyalaya Sangathan

Guwahati Region

Informatics Practices

Class – XII

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Special Study Material (Capsule)

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CHARACTERISTICS OF THIS SPECIAL STUDY MATERIAL(CAPSULE)

1. This special study material (capsule) is prepared for those students who are still struggling in Informatics Practices.
2. It will also help to bright students to revise in last moment to score high marks.
3. This special study material focuses on important topics and type of questions of each unit which come frequently in board exams.
4. This special study material is prepared to score at least 25 or more marks out of 70 in board exam.

IMPORTANT TIPS FOR STUDENTS

For study:

1. First go through all the sections of this special study material(capsule).
2. Practice the solutions in writing rather than just reading.
3. Practice all similar type questions at a time.
4. Prepare those questions first, which you feel easy for you.
5. Plan your study judiciously.
6. Important terms of a topic must be memorized.
7. If any question or topic is not clear then refer to main text book or concern teacher.
8. A proper timetable for study should be followed strictly.
9. Take healthy and timely diet during examinations. Also take sound sleep everyday.
10. Take a break from time to time in each study period.
11. Do not forget to revise all the topics one day prior, to the day of examination.

For giving exam:

1. Read all the questions carefully, before answering.
2. Attempt such questions first, for which you are confident that it will leave a good impression.
3. Don't stretch the answer unnecessarily.
4. Try to write answer in points.
5. Important point should be underlined but be careful, don't waste your time.
6. Try to illustrate your answer graphically, if possible.
7. Don't leave any question unanswered; try to give answer of each question whatever you know and as much as you can.
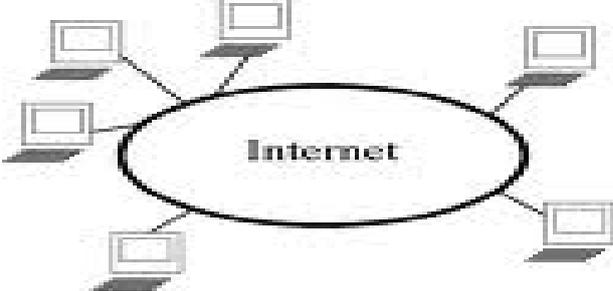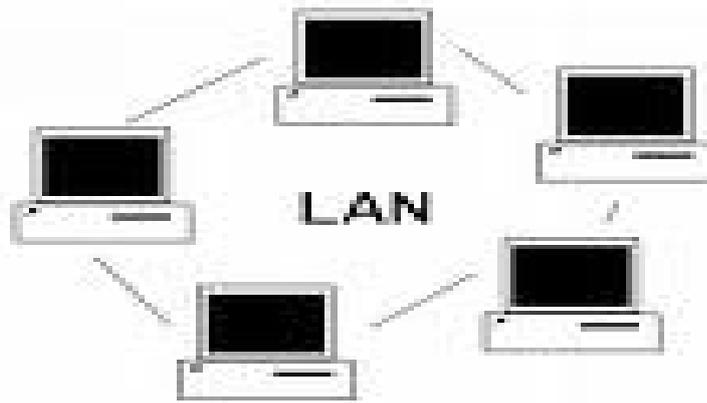
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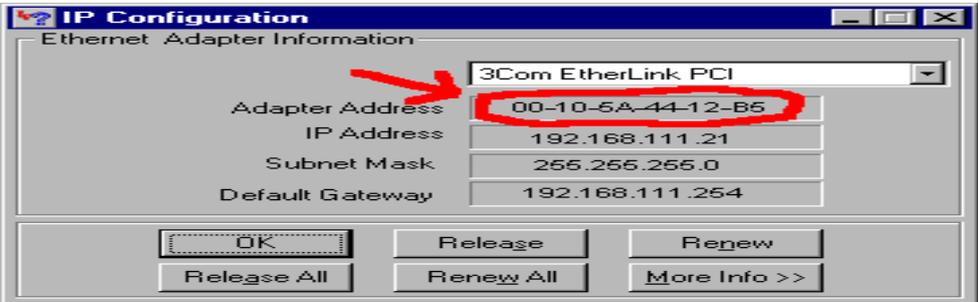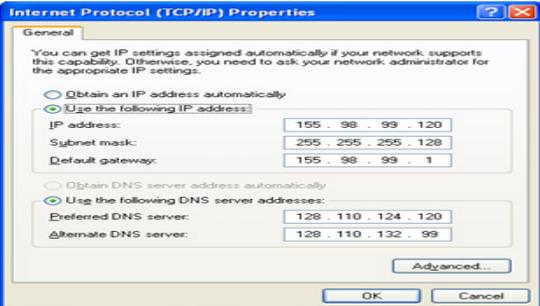| Unit	Topic (Theory)	Marks	Page No
Unit-1	NETWORKING AND OPEN STANDARD	10	04-15
Unit-2	PRGRAMMING IN JAVA, HTML AND XML	25	16-37
Unit-3	RELATIONAL DATABASE MANAGEMENT SYSTEM	30	38-71
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UNIT - 1

NETWORKING AND OPEN STANDARD (10 MARKS)

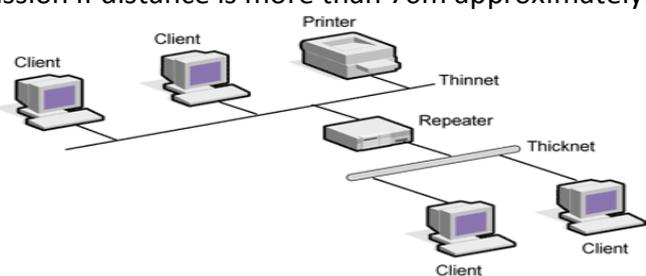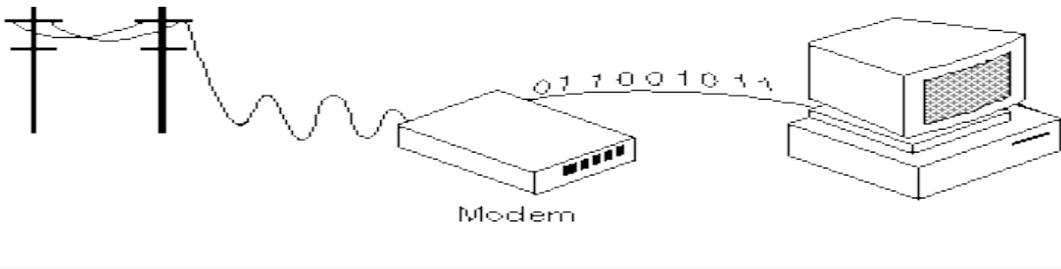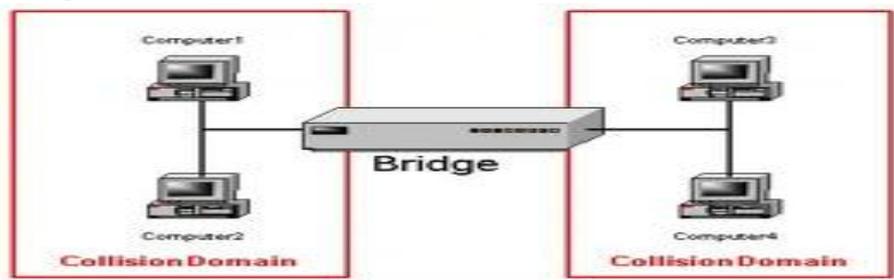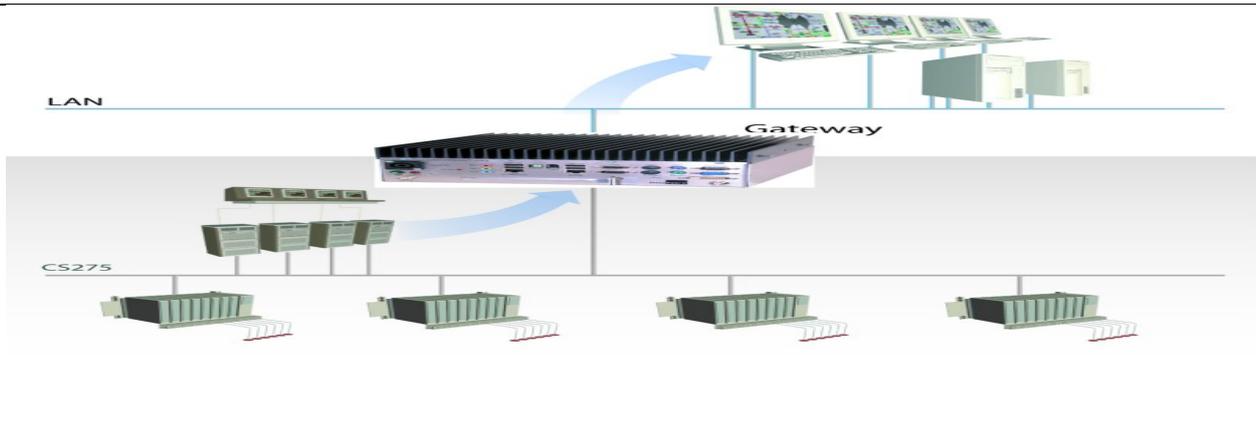## NETWORKING

Q.	What is network?
Ans.	• A network is a set of two or more interconnected computers. • In networking, number of computers in the different parts of world are connected to each other for communication. • It is used to transfer data from one place to another place very fast.
Q.	What is node and workstation in networking terminology?
Ans.	• Each individual computer on the network is called as node. • And whole set up of interconnected computers is called as workstation.
Q.	What is the need of networking?
Ans.	• Resource sharing : To make all programs, data, files available to anyone on the network. • Data Transfer : To make transfer of any data, file, program to any place. • Reliability : A file can have copies in two or more machines, so if any one is crash, other copy can be used. • Communication Medium : It is possible to make changes made at one end noticed at another.
Q.	What are the application of networks?
Ans.	• 1. Data Sharing : sending mails , data, files , folders etc to anyone and anywhere possible. • 2. Access to remote database : It is easy for the average person sitting at home to make reservation for airplane, trains, etc. instantly. 3. Communication facilities : Video conferencing, chatting etc is possible
Q.	What are different types of networks?

Ans.	• There are three types of networks that are as follows :
	  – LAN
	  – MAN
	  – WAN
	  - PAN

Q.	What is LAN?
Ans.	• LAN is Local Area Network. It is small computer network designed to cover short distances and connect a relatively small number of computers. • For e.g an Office, building , hospital, Cyber Café, Comp. Lab etc. • LAN users can share data, information, programs , printer etc.

Q.	What is MAN?
Ans.	• MAN is a Metropolitan network which covers larger area than LAN. • MAN is a network that is spread over a city. • For eg. Cable TV network that is spread over city. • It's wide-area is larger than LAN.
Q.	What is WAN?
Ans.	WAN is Wide Area Network. The networks spread across countries are known as WANs. A wide area network is a group of computers that are seperated by large distances and tied together. The largest WAN in existence is the Internet. For e.g Telephone system.
Q.	What is PAN?
Ans.	PAN is Personal Area Network. It is a small network of communication for an individual person. PAN can wired or wireless. Wired PAN is established through wired cables like USB Cables.
Q.	What is Server & Client in networking?
Ans.	• Server is a computer that stores all the software that can be shared by computers attached to the network. • Also server controls the overall network. • In a workstation, the computers other than server are clients. Clients send request to server for particular file, program, information etc.
Q.	What is network topology?

Ans.	• The pattern interconnection of various nodes on the network is called as network topology.
	• The different topologies in the networking are
	   – Bus Topology
	    In this topology, all the nodes are connected to single continuous cable.
	
	   – Star Topology
	    This topology consists of a central node to which all other nodes are connected by single path. This topology has centralized control.
	
	   – Ring Topology
	    In Ring topology , each node is connected to two neighboring nodes. Data is accepted from one of the neighboring nodes and is transmitted onwards to another. Thus data transfer in one direction only around the ring.
	
	   – Tree Topology
	    In this topology, the network is shaped as a tree with the central branching and sub-

	branching.
	– Mesh Topology In this Topology, each node is connected to more than one node. It is excellent for long distance networking.
Q.	What is transmission media?
Ans.	Data communication is to transmit data from source to destination through transmission media. • The transmission media can be either physical communication (wires , cables) or guided media. • Or simply air (unguided media)
Q.	What are different guided media?
Ans.	• It is physical communication through wires or cables. For eg • 1) Twisted pair cable • 2) Coaxial Cable • 3) Optical Fibre 4) Ethernet Cable
Q.	What is NIC?
Ans.	• It is also called as Network Interface Card. It is a card which is used to established the network connection on the workstation. It has unique address.
Q.	What is MAC?
Ans.	• Media Access Control address is a unique physical address assigned by NIC card manufacturer .
Q.	What is IP Address?
Ans.	• Internet Protocol is unique address on a network. IP Address is just like telephone number that are uniquely identified. • Every node on the network has unique identifying number, i.e is called as IP address.

Q.	What is hub?
Ans.	• A hub is a hardware device used to connect several computers together.
Q.	What is repeater?
Ans.	• A repeater is a device that amplifies a signal transmitted on the network. It ensure the signal transmission if distance is more than 70m approximately.
Q.	What is modem?
Ans.	• MODEM is modulator demodulator. • A modem is a device which convert analog signal into digital signal and vice versa.
Q.	What is bridge?
Ans.	• A bridge is a device which is used to connect two LANs.
Q.	What is gateway?
Ans.	• A gateway is a network device that connects two dissimilar networks.
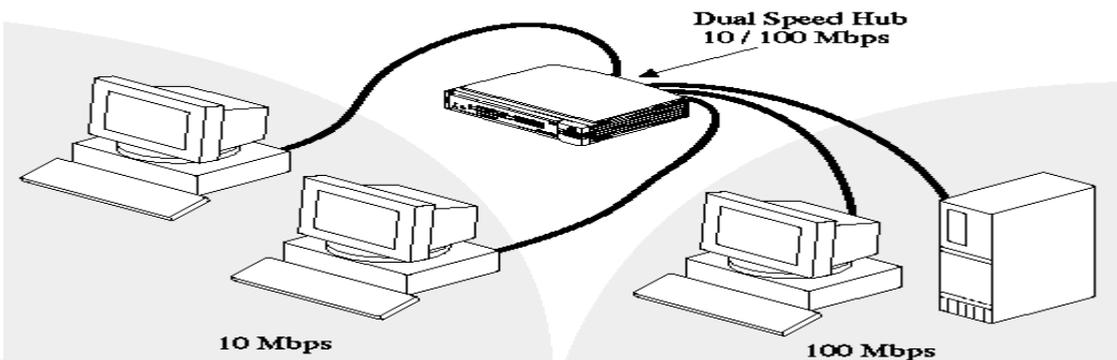
Q.	WHAT IS SWITCHING TECHNIQUES? WHAT ARE DIFFERENT TECHNIQUES ?
Ans.	SWITCHING Techniques are used for transmitting data across network. The different techniques are message switching and packet switching. message switching : it works on mechanism of store and forward. In this, message is stored and forwarded if route is free. Packet switching : In this , data is transmitted in the form of small units that is called as packets. It is generally used for long transmission.
Q.	What is protocol ?
Ans.	Protocol is set of rules and regulations for data transmission. The different protocols are FTP(File Transfer protocol), SMTP(Simple Mail Transfer Protocol), HTTP(Hyper Text Transfer Protocol) , PPP(Point to Point Protocol) , TCP/IP (Transmission Control Protocol)
Q.	What is TDMA?
Ans.	Time Division Multiple Access. It divides a radio frequency in different time slots.
Q.	What is CDMA ?
Ans.	Code Division Multiple Access. It works on spectrums. Receiver end receives the spectrum spread across on the network.
Q.	What is web browser ?
Ans.	Web browser navigates through the world wide web and display web pages. It is a search engine that responds to the users request.
Q.	What is Cookies ?
Ans.	it is message or data to be transmitted to the web server so that to keep track of users activity on the network.
Q.	In networking what is backbone ?
Ans.	It is high capacity link to which many nodes can be connected.
Q.	What is telnet ?
Ans.	It is used for remote login. means to access computer which is far flung area.
Q.	What is ISP ?
Ans.	ISP is Internet service provide which provide network service. for e.g airtel, reliance, aircel etc.
Q.	Define the following terms : i) data channel ii) Baud iii) bps iv) Bps v) Bandwidth
Ans.	i) Data channel is data transmission medium through data is transmitted from one point to another point. ii) Baud : It is unit of data carrying capacity. It is measured in bits per second. iii) bps : bits per second iv) Bps : Bytes per second

	v) Bandwidth : it is the difference between highest and lowest frequencies.
Q.	What is Ethernet card ?
Ans.	It provides the LAN Connection in the range of 10 Mbps. It is a card installed in the computer.
Q.	What is Router?
Ans.	Router is electronic device like a traffic policemen, it directs network traffic. When we send data through a network , the data gets divided into tiny packets, they reassemble into the original message
Q.	What is domain Name?
Ans.	The Domain Name is a unique name assigned to a website. For e.g www.facebook.com here, facebook is the domain name. Domain name is also called as Domain name System (DNS)
Q.	What is Domain Name Resolution?
Ans.	It is the process of obtaining corresponding IP address from a domain name.

NETWORK SECURITY

It is the ability of a system to protect information and system from confidentiality and Integrity.

Q) What do you mean by threats ? Explain different types of threats?

Ans : A threat is a violation of security. Some common threats are given as follows :

1) Virus : are the programs that cause damage files on the system. These are malicious programs that can automatically be transferred from one computer to another through internet, CD, DVD, USB pen drive or MemoryCards. Worms and Trojan are the parts of viruses.

 ➢ Worms :
It is a program made to replicate automatically. A worm replicates continuously until the entire hard disk space and memory are eaten up and it may do so without any user intervention. This kind of self replicating programs spread over the entire hard disk and memory consequently and slow down the system.

 ➢ Trojan : - are programs to slow down computers and can perform malicious functions such as deleting files or damaging files. These program are generally transfer by email, attachments. It seems that your program is running smoothly but actually it is damaging the files in background.

2) Spyware : is a software which is installed on your computer to spy on your activities and report this data to people willing to pay for it. They are used to spy on some one either for legal or illegal purpose.
for e.g passtracker etc.

3) Adware : These are the programs that deliver unwanted ads on your comuter (generally in Pop-ups form).

4) Spamming : refers to sending bulk – mail by an identified or unidentified source. The attacker keeps on sending bulk.

5) Phishing : It is process attempting to acquire sensitive information such as username, password , credit card information, account data etc.

Q) What are the Preventive measures or Solution to Computer Security Threats ?
1. Use Anti-Virus and Anti-Spyware Software
2. Download updates regularly
3. Run full-system scan frequently
4. Install firewall
5. Always sign-off from internet when you are away for long time

Q) What is intrusion ?
Ans : When an unauthorized user try to access protected sensitive information is called as intrusion.
The different intrusion attacks are
➢ Snooping
➢ Eavesdropping

Q) Explain different intrusion attacks ?
Ans : The different intrusion attacks are
➢ Snooping : The unauthorized access to someone's data, email account, information, computer activity etc.
➢ Eavesdropping : It is the act of secretly intercepting (stealing) someone's private data or information.

Q) What is Denial of Service (DoS) Attacks :
Ans : DoS attacks are those attacks that prevents legal users of the system from accessing information of the system.

Q) What is firewall ?
Ans : Firewall is the system designed to prevent unauthorized access to or from a private network is called firewall.

FULL FORMS : (1 mks or 2 mks)

1. ISP : Internet Service Provider
2. ATM : Automated teller machine
3. ARPANET : Advanced Research Project Agency for Networking
4. TCP/IP : Transmission Control Protocol / Internet Protocol
5. VSNL : Videsh Sanchar Nigam Limited
6. MTNL : Mahanagar Telephone Nigam Limited
7. Bps : Bytes per second
8. bps : bits per second
9. Kbps : Kilo bits per second

10. Mbps : Mega bits per second
11. mbps : million bits per second
12. FTP : File Transfer Protocol
13. LAN : Local Area Networking
14. MAN : Metropolitan Area Networking
15. PPP : Point-to-Point Protocol or Peer to Peer Prot
16. TELNET : Terminal Network
17. GSM : Global System for Mobile Communications
18. SIM : Subscriber Identity Module
19. CDMA : Code Division Multiple Access
20. WLL : Wireless Local Loops
21. 3G : Third Generation Broadband Wireless Digital services
22. SMS : Short Message Services
23. e-mail : Electronic Mail
24. HTML : Hyper Text Markup Language
25. HTTP : Hyper Text Transfer Protocol
26. XML : Extensible Markup Language
27. URL : Uniform Resource Locator
28. WAIS : Wide Area Information System
29. NFS : Network File System
30. OSS : Open Source Software
31. FLOSS : Free Libre and Open Source Software
            (Libre – Spanish word i.e freedom)

32. FSF : Free Software Foundation
33. OSI : Open Source Initiative
34. W3C : World Wide Web Consortium
35. EDGE : Enhanced Data rates for Global Evolution
36. IPR : Intellectual property Rights
37. WiLL : Wireless in Local Loop
38. MOSAIC : Internet Browser
39. GNU : GNU's Not Unix
40. POP : Post Office Protocol
41. IMAP : Internet Mail Access Protocol
42. SLIP : Serial Line Internet Protocol
43. UPS : Uninterrupted Power Supply
44. MMS : Multimedia Message Service
45. MOSAIC : is web browser i.e used opening internet sites.
46. USENET : It is news group i.e comprises of thousands of news groups
47. VoIP : Voice over Internet Protocol
48. Wi-Fi : Wireless Fidelity
49. WiMax : Worldwide Interoperability for Microwave Access.
50. web 2.0 : is used for social networking

OPEN SOURCE SOFTWARE

Free Software : means the software which is free of cost , accessible anywhere. It can be copied and distributed to anyone.

OSS (Open Source Software) : It is a software which can be freely available to the customer and accessible everywhere. e.g MYSQL,NETBEANS,LINUX ETC

FOSS : (Free and Open Source Software) Is a software which is free as well as open.

BOSS : (Bharat Operating System solutions)

FLOSS : (Free Libre and Open Source Software) – The word libre (is a Spanish word that means freedom). FLOSS is used to refer to a software which is free as well as open source software.

OSI : (OPEN SOURCE INITIATIVE) – It is the organization which is used to promote open source software.

W3C : (World Wide Web Consortium) – It is responsible for producing the softwares for world wide web.

FSF : It is free software foundation

Proprietary Software : It is a software which is neither open nor freely available. License fee has to pay. eg Microsoft windows

FreeWare : It is a software which is available free of cost and which allows copying and further distribution. fore.g Internet Explore

Shareware : This software can be used for particular period of time freely then license fee should be paid.

Q) What are different Open Source or free software ?

Ans :

Linux : It is popular Operating System

Mozilla : It is very popular web browser

Apache Server : It web server which is available for many platform e.g Linux ,Windows etc

MySQL : It is most popular RDBMS (Relational Database Management System) . It works on many platform. It is advance version of SQL.

LAMP-It stands for linux,apache,MySQL,PHP(Hypertext preprocessor)

PostgreSQL : It is a free software. It is DataBase Management System. It offers alternative to MySQL.

Pango : It is free software. Pango word comes from *Pan*(Greek word) + *go* (Japanese word). It is used to provide toolkits for creating GUI(Graphical User Interface).

OpenOffice : It is also called as OOo i.e OpenOffice.org. It is free software, provides package of many programs like word, excel, database, powerpoint, graphics Program etc. It gives platform for many Operating System like Unix, Windows, Mac etc.

Tomcat :Tomcat runs JavaScript Pages and Servlet Pages.

PHP : It is also called as hypertext Preprocessor. It is widely used open source programming language for developing web content. fore.g Wikipedia software etc.

Python : is an interpreted , interactive programming language. It is often compared to java programming language.

OGG : (OGG VORBIS) it is audio compression format.

ASCII : It is American standard code for information interchange. it is 7 bit code 2^7=256 characters. Every character in the keyboard has numeric code i.e ASCII Code. for e.g 'A' has ASCII code 65.

ISCII : It is Indian standard code for information interchange. It is 8 bit code 2^8 =512 characters . All the Indian languages are scripted in ISCII code. It apply to all regional language like Marathi, devnagari, Bengali, telgu etc.

UNICODE : It is universal coding. It is 16 bit code. It is used for all world wide languages like Japanese , Chinese , French etc.

Q. Distinguish between phonetic text entry and keymap text entry ?

Ans. In phonetic words are typed as their pronounciation. For ex.- ''mera desh mahan''. This statement will be written in hindi. It is related to hindi transliteration.

In keymap entry the mapping of keyboards key to specific characters.

Q) What do you mean by protocol ? and name its types ?

ans : Protocol is set of rules and regulations for data transmission. The different protocols are :

FTP, SMTP, HTTP , PPP , TCP/IP

Q) What are different OPEN SOURCE SOFTWARE FORMAT ?

1	.JPEG	JOINT PHOTOGRAPHIC EXPERT GROUP
2	.MP3	MEDIA PLAYER 3
3	.DVI	DEVICE INDEPENDENT FORMAT
4	.ODF	OPEN DOCUMENT FORMAT
5	.PNG	PORTABLE NETWORK GRAPHICS
6	.SVG	SCALABLE VECTOR GRAPHICS
7	.OGG	OGG VORBIS
8	.FLAC	FREE LOSSLESS AUDIO CODEC

Q) IDENTIFY WHICH OF THE FOLLOWING IS OPEN SOURCE SOFTWARE AND PROPRIETARY SOFTWARE ?

OPEN SOURCE SOFTWARE	PROPRIETARY SOFTWARE FORMAT
Plain Text	.DOC, .DOCX, .PPT, .XLS
.OGG	.wma (windows media audio)
.FLAC	.wmv (windows media video)
.SVG	
.PNG	
.DVI	
.JPEG	
.ODF	

Q) What are different computer codes ?

Ans : Computer understand machine language only i.e language of 0 and 1 only. Computer codes the data in machine code in 0 and 1 form.

There are three types of codes that are as follows :

1) ASCII (AMERICAN STANDARD CODE FOR INFORMATION INTERCHANGE)

2) ISCII (INDIAN STANDARD CODE FOR INFORMATION INTERCHANGE)

3) UNICODE (UNIVERSAL CODEING)

Q) EXPLAIN HOW THE CHARACTERS ARE STORED IN MEMORY ?

OR EXPLAIN DIFFERENT COMPUTER CODES ?

Ans :

ASCII code :

American Standard code for Information Interchange , is most widely used alphanumeric code. It is 7 bit code and can store 2^7 = 128 possible characters.

for e.g

    for character A, ASCII code is 65
    for character B, ASCII code is 66
      :
      :
    for character Z, ASCII code is 91

Similarly,

    for character a, ASCII code is 97
    for character b, ASCII code is 98
      :
      :
    for character z, ASCII code is 123

Similarly ,
     for 0 digit, ASCII Code is 48
     for 1 digit, ASCII Code is 49
        :
        :
     for 9 digit, ASCII Code is 57

ISCII : - (Indian Standard Code for Information Interchange)

        In 1991, Bureau of Indian Standards adopted ISCII for coding Indian Scripts. This is an 8 bit code capable of coding 256 characters. ISCII code retains all ASCII characters and offers coding for Indian scripts also.

        This standard does not only apply to the Devnagari script, but also to the Marathi, Gujarati, Oriya, Bengali, Telgu, Tamil etc.

UNICODE :-   It is universal coding. Before Unicode was invented, there were hundreds of different encoding systems. No single encoding could contain enough characters. For e.g , European Union alone requires different encoding, Asian Union requires different, African Union requires different encoding etc. Unicode is 16 bits code.

        Unicode provides a unique numbers for every character, no matter what the platform, no matter what the program, no matter what the language.

        Unicode version 3.1 has added characters count to 94,140.

UNIT 2

PROGRAMMING IN JAVA, HTML AND XML(25 MARKS)

BASIC THEORY QUESTIONS ON JAVA PROGRAMMING – 2 Marks

Q) What is OOP ?

Ans : OOP is object Oriented Programming Language. It is a language which is based on objects and classes. for eg C++, Java etc.

Q) What is Object and Class in OOP ?

Ans : Object is any identifiable entity which may be living or non-living thing. for e.g is chair, table,car, a person etc.

class is nothing but group of objects. It binds data and function together.

for e.g furniture , vehicle etc.

Q) What is Java OR features of Java programming ?

Ans : Java is programming language. Java is object oriented programming language. It is a interactive programming language. It is light weight. It can

write once run anywhere

Q) What is Netbean IDE in Java Programming ?

Ans : IDE is Integrated Development Environment. It provides a platform to edit, compile and debug the program. Jave IDE example is netbeans.

Q) What is JVM ?

Ans : JVM is Java Virtual Machine is a program which acts as interpreter and translates byte code into machine code during compilation.

Q) What is RAD ?

Ans : RAD is Rapid Application Development. RAD is a software programming technique that allows quick development of software application.

Q) What is source code in Java Programming ?

Ans :The program written in a language like C , C++ or Java is called as Source Code.

Q) What is Object code in Java Programming ?

Ans : The program which is only understood by the computer is machine code. This machine code is also called as object code.

Q) What is Byte Code in Java Programming ?

Ans : When compiler compiles the java program , it produces a series of byte codes. The JVM(Java Virtual Machine) executes this byte code into machine code.

Q) What is GUI ?
Ans : A graphical User Interface (GUI) gives the pictorial representation of program with the help of graphical symbols .

Q) What is Token in Java Programming ?
Ans : The smallest individual unit in a program is called as token. There are different tokens in java programming keyword, identifier, literal, punctuators and operators.

Q) What do you mean by keyword and identifier ?

Ans : Keyword is a word which has special meaning in programming. fore.g if, else , while, do... while, for, parse, int, double, class etc.

Identifier is variable name. it is user defined.

Q) What is primitive data types ?

Ans : In Java Programming all the variables must be first declared before they can be used. A primitive data type is predefined data types which is given by reserved keyword. The different primitive data types are int , float , double, long, short, byte etc.

Q) What is reference data types ?
Ans : reference data types is not predefined. It is a data type used as per users need. fore.g class, array etc.

Q) What is event driven programming ?

Ans : When user performs any action on control like mouse click, key pressed etc. and application runs accordingly is called as event driven programming.

Q) What is JDK ?

Ans : JDK is Java Development Kit. it is a tool useful for developing and testing programs written in Java programming Language.

Q) What is write once run anywhere characteristic of Java ?

Ans : The Java programs need to be written just once, which can be run on different platform without making changes in the Java program. This characteristic is known as Write once Run anywhere.

Q) How is ordinary compilation process different from Java compilation ?

Ans : - In ordinary compilation, the source code is converted to machine code,

In Java compilation, the Java compiler produces a byte code.

Q) What is difference between 'x' and "x" in java programming ?

ans: 'x' is character constant.

   "x" is string constant.

JAVA STATEMENTS in GUI QUESTION (1 Mark/2 Marks)

	Java Application Question	Example Answer (Use name of the control which is given in question paper)
1	Write a java statement to clear the textField	jTextField1.setText(" ");
2	Write a java statement to make textfield editable	jTextField1.setEditable(true);
3	Write a java statement to textfield uneditable	jTextField1.setEditable(false);
4	Write a java statement to enable textfield	jTextField1.setEnabled(true);
5	Write a java statement to disable textfield	jTextField1.setEnabled(false);
6	Write a statement to assign 0 in the TextField.	jTextField1.setText(" 0 ");
7	Write a statement to clear or deselect CheckBox	jCheckBox1.setSelected(false);
8	Write a statement to clear or deselect RadioButton	jRadioButton1.setSelected(false);
9	Write Java statement to make all text fields invisible	jTextfield1.setVisible(false);
10	Write Java statement to make all text fields visible	jTextfield1.setVisible(true);
11	Statement to exit / terminate /quit/end an application	System.exit(0) ;

SAMPLE JAVA GUI PROGRAMMING QUESTION

=> Mr. Madhav works in a construction company. To calculate total wages he has developed the following GUI in NetBeans.
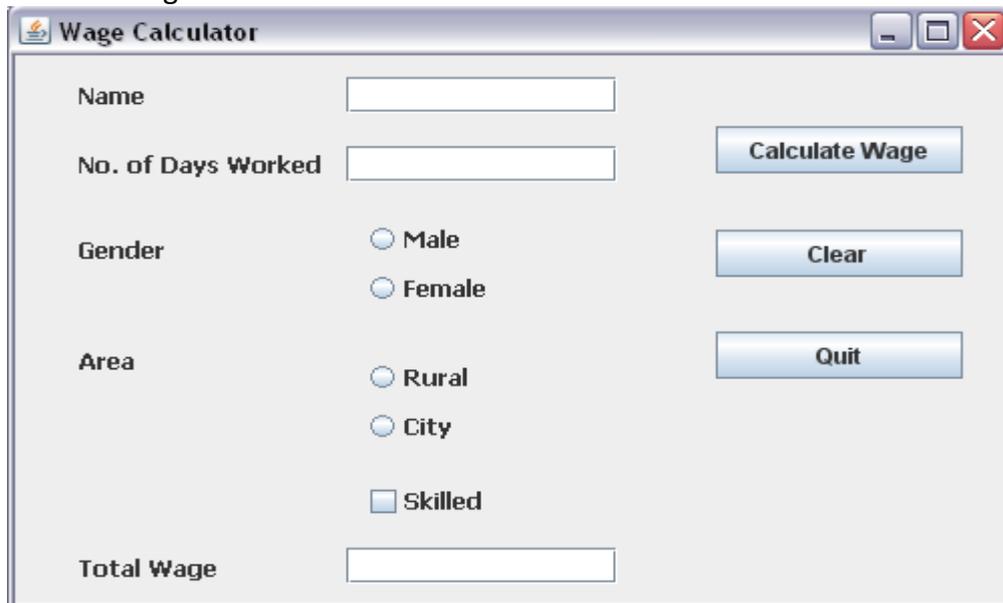
Male and female labours are respectively paid Rs. 150/- per day and Rs. 170/- per day. Skilled labourers are paid extra at the rate of Rs. 100/- day. Male and female labourers from rural areas are paid 10% less per day.

(a) When Calculate Wage button is clicked, the total wages is calculated as per the given criteria and displayed in total wage text box.

Ans :
```
double day =Double.parseDouble(jTextField2.setText());
double wages;
if(jRadioButton1.isSelected( ))
        wages=150;
else
        wages=170;
if(jCheckBox1.isSelected( ))
        wages=wages+100;
if(jRadioButton3.isSelected( ))
        wages=wages-(wages*10)/100;
doubletotal_wages=day * wages ;
        jLabel6.setText(""+totalwages);
```

(b) When Clear button is clicked, all the text boxes should be cleared and radio button, check box should be deselected or cleared.

Ans :
```
jTextField1.setText("");
jTextField2.setText("");
jRadioButton1.setSelected(false);
jRadioButton2.setSelected(false);
jRadioButton3.setSelected(false);
jRadioButton4.setSelected(false);
```

jCheckBox1.setSelected(false);

(c) Close the application when Quit button is pressed.
Ans : System.exit(0);

(d) Write Java Statements to disable all text boxes.
Ans :
jTextField1.setEnabled(false);
jTextField2.setEnabled(false);
jTextField3.setEnabled(false);

(e) Write Java statement to make all text fields invisible
Ans :
jTextfield1.setVisible(false);
jTextfield2.setVisible(false);

FINDING OUT ERROR(s) & REWRITE THE PROGRAMME AFTER REMOVING ERROR(S) (2 Marks)

1) Rewrite the following Java code after underling the corrections made.
```
int i, j=5 :
i= =j+5;
if(i=j)
{
jTextField1.setText("i and j are unequal"); break ;
}
else jTextField1.setText("i and j are equal");
```
Ans :
```
int i , j=5 ;
i = j+5 ;
if( i == j )
{
jTextField1.setText(" i and j are unequal ");
break ;
}
else
jTextField1.setText("i and j are equal");
```

2) Rewrite the code after making correction . Underline the corrections
```
int sum=0 ; inct=0;
int i;
for(i==0 , i<=10 , i++) ;
sum=sum+i;
inct++;
```
Ans :
```
int sum=0 , inct =0 ;
int i ;
for( i =0 ; i < = 10 ; i++ )
{
```

```
            sum=sum + i ;
            inct++ ;
            }
```

3) Rewrite the following Java code after underling the corrections made.

```
            int x==0;
            int n= Integer parseInt(JLabel1.getText);
```

Ans :

int x=0 ;

int n=Integer.parseInt(jLabel1.getText( ));

4) Find out errors if any:

```
            n=0;
            For(m=1 ;m+n<19;++n)
            System.out.println("hello");
            M=m+10;
```

Ans :

int n=0 ;

for (int m=1 ; (m+n) < 19 ; ++n)

System.out.println(" hello");

m=m+10 ;

If..else to switch…case and switch..case to if..else(2 Marks)

1) Rewrite the following if-else segment using switch-case statement:

```
if( C==0)
      Amount=Bill ;
else if( C==1)
      Amount=0.9*Bill;
else if(C==2)
      Amount=0.8*Bill;
else
      Amount=Bill;
```

Answer :
```
switch(C)
{
case 0 :
           Amount=Bill ;
           break ;
case 1 :
           Amount = 0.9 * Bill ;
           break ;
case 2 :
           Amount =0.8 * Bill ; break ;
default :
           Amount =Bill ;
}
```

2) Rewrite the following switch-case statement using if-else segment :
```
      switch(ch)
      {
        case 'A':
             System.out.println("Account");
             break;
        case 'C':
        case 'G':System.out.println("Admin");break;
        case 'F':
             System.out.println("Advisor");break;
      }
```
Answer :
```
      char ch='A';
       if(ch=='A')
              System.out.println("Account");
       if((ch=='C') || (ch=='G'))
              System.out.println("Admin");
       if(ch=='F')
              System.out.println("Advisor");
```

MISCELLANEOUS IMP. THEORY QUESTIONS ON JAVA PROGRAMMING

Q.	What do you mean by type casting? What is type cast operator?

Ans.	The type casting is conversion of one data type into another data type. Type casting is doen as :
	(type) expression // type is called as type cast operator
	for e.g
	        float x=3.1 ;
	        int i= (int) x ; // here, int is type cast operator

Q.	What is difference between listbox and combobox ?
Ans.	<table><tr><th>COMBO BOX</th><th>LIST BOX</th></tr><tr><td>allow Only one item is selected.</td><td>allows more than one item is selected at a time.</td></tr><tr><td>it takes very less space</td><td>it takes more space</td></tr><tr><td>it provides text field where user can edit the selected item,</td><td>it does n't provides text field where user can edit the selected item,</td></tr><tr><td>it provides drop down</td><td>it doesn't provide drop down.</td></tr></table>
Q.	What is the significance of a button group? How do you create a button group ?
Ans.	A button group is used to create set of radio buttons. one can add a buttongroup in our application by first clicking at button group on palette and then dragging into the design space.
Q.	How are events, message, methods and properties interrelated?
Ans.	a **property** indicates behavior for eg. background, visible, editable etc. a **method** is used to changing the state of object for e.g add, move, remove etc. **Event** get generated when user does something such as mouse click,dragging, pressing etc Each time when even occurs, a **message** to be sent.
Q.	What is object and class in java programming ? What are features of OOP ?
Ans.	object and class is very important features of Object Oriented Programming language. object is an object , name or any entity etc Objects are created through new operator. class is group of objects binding together sharing same properties.
Q.	What is OOP ?What are features of OOP ?
Ans.	OOP is object oriented programming. it a programming which based on the concept of object and class. for e.g c++, Java. The features of OOP are polymorphism, inheritance, class etc.
Q.	What is polymorphism or function overloading with reference to object oriented programing?
Ans.	Polymorphism is important feature of Object oriented programming language. It is the property where data to be processed in more than one form. This property is also known as function overloading.
Q.	What is inheritance with reference to object oriented programing?
Ans.	Inheritance is the feature of object programming language. It is the capability of one class to acquire property from another class. Types of inheritance : single, multiple, multilevel,hierarchical, hybrid inheritance.
Q.	What are primitive data types?
Ans.	Primitive data type are the fundamental data type like int, float , double, long etc are the primitive data type. These are the data types which are provided by java compiler.
Q.	What is fall through in switch case statement?
Ans.	Switch statement executes its various cases. every case provided with break. If a statement is there without break, will jump to the next case. This is called as "fall through".
Q.	Which loop are called as entry controlled loop and exit controlled loop ?
Ans.	for and while loop is called as entry controlled loop. do… while is called as exit controlled.
Q.	What is a dialog ?
Ans.	A dialog is a small separate window that appears to provide information to user.
Q.	Which import command do you need to write before creating an option pane dialog window?
Ans.	import javax.swing.JOptionPane ;

\n and \t Based questions – 1 mark or 2 marks

=> \n is used to insert a new line.

=> \t is used to insert a tab space

1. What will be displayed in jTextArea1 after executing the following statement?
   jTextAreal.setText ("CLASS XIID\t KVS \n Guwahati Region") ;
   Anaswer: CLASS XIID   KVS
                 Guwahati Region

2. What will be the contents of jTextArea1 after executing the following statement:
   jTextArea1.setText("Java is\tObject\tOriented\nProgramming");
   Anaswer: Java is   Object   Oriented
                 Programming

3. What will be displayed in jTextArea1 after executing the following statement?
   jTextAreal.setText ("\tINDIA \t IS \n COUNTRY") ;
   Anaswer: INDIA   IS
                 COUNTRY

4. What will be the contents of jTextArea1 after executing the following statement:
   jTextArea1.setText("ROSE IS \n\t RED");
   Anaswer: ROSE IS
                       RED

SIMPLE JAVA PROGRAM(2 Marks)

Q.	Write java code that takes value for a number x in jTextField1 and square (x*x) of it should be displayed in jTextField2.

Ans.	int x ;
	x=Integer.parseInt(jTextField1.getText());
	jTextField2.setText(" " + (x*x));

Q.	Write a java code that takes the cost of a pencil from jTextField1 and number of pencils from jTextField2 and calculate total amount as cost*number to be displayed in jTextField3 and 20% service tax out of total amount in jTextField4.

Ans.	double price,Qty,TOT,tax;
	price=Double.parseDouble(jTextField1.getText());
	Qty=Double.parseDouble(jTextField2.getText());
	TOT=price * Qty ;
	jTextField3.setText(" " +TOT);
	tax=(20/100) * TOT ;
	jTextField4.setText(" " +tax);

Q.	CBSE MAR 2015 Write a java code to assign the value 500 to variable x. Increase the value x by 50 and store it in variable y.
Ans.	int x = 500 ; int y = x + 50 ; or double x,y ; x=500 ; y = x + 50 ;
Q.	Write a java code that takes the price of a pen from jTextField1 and quantity of pen from jTextField2 and calculates net amount after offering 10% of discount on the total amount and print the net amount in jTextField3.

Ans.	double price,qty,disc,tot,net;
	price=Double.parseDouble(jTextField1.getText());
	qty=Double.parseDouble(jTextField2.getText());
	tot=price*qty;
	disc=(10/100)*tot;
	net=tot-disc;
	jTextField3.setText(" " +net);

Q.	Write a java code that take principal amount in jTextField1, rate in jTextField2 and time in jTextField3. Calculate the simple interest in jLabel1. (Hint : SIMPLE INTEREST=(P*N*R)/100)
Ans.	double P,N,R,SI; P=Double.parseDouble(jTextField1.getText()); N=Double.parseDouble(jTextField2.getText()); R=Double.parseDouble(jTextField3.getText()); SI=(P*N*R)/100; jLabel1.setText(" " +SI);
Q.	Write a java code that take value1 in jTextField1 and value2 in jTextField2. Find the greatest number and display in jTextField3 ?
Ans.	double num1,num2; num1=Double.parseDouble(jTextField1.getText());

	num2=Double.parseDouble(jTextField2.getText());
	if(num1>num2)
	    jTextField3.setText("The greatest no. is " +num1);
	else
	    jTextField3.setText("The greatest no. is "+num2);

Q.	Write a java code that takes three numbers in jTextField1,jTextField2 and jTextField3 , and find the maximum number among them.

Ans.	double num1,num2,num3;
	num1=Double.parseDouble(jTextField1.getText());
	num2=Double.parseDouble(jTextField2.getText());
	num3=Double.parseDouble(jTextField3.getText());
	if(num1>num2)
	if(num1>num3)
	    System.out.print("The greatest number is :" +num1);
	if(num2>num1)
	if(num2>num3)
	    System.out.print("The greatest number is :" +num2);
	if(num3>num1)
	if(num3>num2)
	    System.out.print("The greatest number is " +num3);

Q.	Write a java code that takes any year in jTextField1 and find it is leap year or not ?

Ans.	int year ;
	year=Integer.parseInt(jTextField1.getText());
	if(year % 4 == 0)
	    System.out.print(" This is leap year");
	else
	    System.out.print("This is not leap year");

Q.	Write a java code that takes a number in jTextField1 and find it is even or odd ?

Ans.	int n ;
	n=Integer.parseInt(jTextField1.getText());
	if(year % 2 == 0)
	    System.out.print(" This is even number");
	else
	    System.out.print("This is odd number");

Q.	Write a java code statement to display "Hello! welcome to java programming" in message dialog box.
Ans.	JOptionPane.showMessageDialog(null,"Hello! Welcome to java programming");
Q.	Write a java code to enter age in jTextField1 and display the message in dialog box that "Eligible for voting" if age is greater than 18 , otherwise display in message dialog " Not eligible for voting. Wait for some time".

Ans.	int age ;
	age=Integer.parseInt(jTextField1.getText());
	if(age>18)
	    JOptionPane.showMessageDialog(null,"Eligible for voting.");
	else
	    JOptionPane.showMessageDialog(null,"Not eligible for voting. Wait for some time");

SELECTION STATEMENTS

Q) What are different selection statements available in Java Programming ?

Ans : The selection statements allows to choose from the set of instructions for execution. Java provides two types of selection statements

    i)   if ….. else
    ii)   switch ……. case

Q) What message will be displayed after the execution of the following code ? CBSE 2011

int Age=64, Relaxation=4;

int ModiAge=Age-Relaxation ;

if(ModiAge<60)

JOptionPane.showMessageDialog(Null,"NOT eligible");

else

JOptionPane.showMessageDialog(Null,"Eligible");

Ans-:Eligible.

Q) What will be displayed in of jTextField1 after executing the following code ? CBSE 2012

int m=16;

        m=m+1;

if(m<15)

jTextField1.setText(Integer.toString(m));

else

jTextField1.setText(Integer.toString(m+15));

Ans : 32

Q) Show the output of the following code :

int a=5, b=10;

if(a>5)

```java
if(b>5)

        {

System.out.println(" b is : " + b);

        }

else

System.out.println( " a is :" +a);
```

Ans :   a is : 5

Q) Write a Java program to read year(of four digit) and find whether leap year or not with help of if..else

Ans :

```java
int year;

year=Integer.parseInt(jTextField1.getText());

if( year % 4 == 0 )

jLabel1.setText(" Leap Year ");

else

jLabel1.setText(" Not Leap Year ");
```

Q) Give the output of the following code fragment ?

```java
int year=2008 ;

if( year % 4 == 0 )

jLabel1.setText(" Leap Year ");

else

jLabel1.setText(" Not Leap Year ");
```

Ans : Leap Year

Q) Write a Java Program to read a number and find whether even or odd ?

```java
int n;

n=Integer.parseInt(jTextField1.getText());
```

```
if( n % 2 == 0 )

jLabel1.setText(" EVEN NUMBER ");

else

jLabel1.setText(" ODD NUMBER  ");
```

Q) Write a Java Program to read a number and find the number is positive or negative ?

Q) Find the output of the following code fragement ?

```
int s=24;

if(s<20)

System.out.println("under");

else

        {

System.out.println("OVER");

System.out.println("the limit");

        }
```

Q) Find out the error(s) in the following code fragment ?

```
int s=15

if(s<50)

System.out.print("under");

else

System.out.print("OVER");

System.out.println("the limit");
```

LOOP BASED (2 Marks) / OUTPUT BASED (2 Marks) QUESTIONS ON LOOP

S.No.	Question	Answer

1	FIND OUTPUT?
	int p=5,sum=0 ;
	while(p<6)
	{
	sum+=6;
	p+=2 ;
	}
	jTextField1.setText(Integer.toString(sum));
	jTextField2.setText(Integer.toString(p));
		jTextField1 : 6
		jTextField2 : 7

2	What will be the value of total in the following coding ?
	int total=0,j=5;
	for(int i=1; i<=2; i++)
	{
	total+=j;
	}
	jTextField1.setText(Integer.toString(total));
		total : 10

3	Find the value of jTextField1 in following code:
	int n=14;
	a=++n;
	if(a>5)
	  jTextField1.setText(Integer.toString(n++));
	else
	   jTextField1.setText(Integer.toString(++n));
		jTextField1 : 15

4	How many times following loop will execute:
	for(int i=10 ; i>=2 ; i-=3)
	{
	jTextArea1.append(String.valueOf(i) + "\t");
	}
		3 times

5	How many times following loop will execute:
	int x=5, y=30;
	while(x<=y)
	{
	x+=5;
	}
		6 times

6	How many times following loop will execute:
	int N=1;
	while(N<=32)
	{
	N=3*N ;
	jTextArea1.append(String.valueOf(N) + " \n");
	}
		4 times

Java code to print some pattern

1)	1
	1 2
	1 2 3
	1 2 3 4
		``java
		for(int i=1 ; i<=4 ; i++)
		{
		    for (int j=1 ; j<=i ; j++)
		      {
		          System.out.print(j + " \t");
		      }
		System.out.print(" \n");
		}
		``

2)	1
	2 2
	3 3 3
	4 4 4 4
		``java
		for(int i=1 ; i<=4 ; i++)
		{
		    for (int j=1 ; j<=i ; j++)
		      {
		          System.out.print(i + " \t");
		      }
		System.out.print(" \n");
		}
		``

3	1 2 3
	1 2 3
	1 2 3
		``java
		for(int i=1 ; i<=3 ; i++)
		{
		    for (int j=1 ; j<=3; j++)
		      {
		          System.out.print(j + " \t");
		      }
		System.out.print(" \n");
		``

4	* * *
	* * *
	* * *
		``java
		for(int i=1 ; i<=3 ; i++)
		{
		    for (int j=1 ; j<=3; j++)
		      {
		          System.out.print("*" + " \t");
		      }
		System.out.print(" \n");
		``

5	#
	# #
	# # #
		``java
		for(int i=1 ; i<=3 ; i++)
		{
		    for (int j=1 ; j<=i ; j++)
		      {
		          System.out.print("#" + " \t");
		      }
		System.out.print(" \n");
		``

JAVA FUNCTIONS

=>Commonly available functions in String class in Java are:

length( ) : - This method count the number of characters in the string.

        for e.g

        String S1="Informatics Practices";

        jTextField1.setText("The total characters is :- "+ S1.length( ));

        Ans : The total characters is :- 21

toLowerCase( ):- This method convert the upper characters in to lower characters.

        String Str1="Kv Khanapara";

        jTextField1.setText(Str1.toLowerCase( ));

        Ans: kv khanapara

toUpperCase( ):- This method convert the lower characters in to upper characters.

        String Str1="@Supper Market@";

        jTextField1.setText(Str1.toUpperCase( ));

        Ans : @SUPPER MARKET@

trim( ):- This method returns the string after removing extra spaces from any leading or trailing part of the string.

for e.g

        String msg="   Happy new year   ";

        String year="2014";

        jTextField1.setText (msg.trim() + year);

        Ans : Happy new year2014

concat( ):- This method appends one string to the end of the other string.

String s1="tango";

String s2="charlie";

jTextField1.setText(s1.concat(s2));

Ans : tangocharlie

substring( ):- This method is used to return a sub-part of string.

String S="CWG INDIA 2014";

jTextField1.setText(S.substring(4)) ;

jTextField2.setText(S.substring(0,3));

Ans : In jTextField1 , INDIA 2014

In jTextField2,   CWG

equal( ):-Compares two strings. If both the strings are equal it return otherwise false.

String pswd="kvm";

if(pswd.equals("kvm"))

    System.out.print("Correct Password");

else

    System.out.print("Incorrect Password. Try again! ");

=>Commonly available functions in Math class in Java are:

pow( ):- It gives raised to the power. for e.g 2^3=Math.pow(2,3)=8

jTextField1.setText(Math.pow(5,3));   Ans : 125

jTextField1.setText(Math.pow(3,2));   Ans : 9

round( ):- It gives round to the nearest integer.

For e.g   jTextField1.setText(Math.round(3.4));   Ans : 3

jTextField1.setText(Math.round(9.9));   Ans : 10

sqrt( ):-   It gives the square root

for e.g   jTextField1.setText(Math.sqrt(25));   Ans : 5

jTextField1.setText(Math.sqrt(100));   Ans : 10

ceil( ):-   It gives the next whole number up that is integer.

for e.g   jTextField1.setText(Math.ceil(1.3));   Ans : 2

jTextField1.setText(Math.ceil(9.9));   Ans : 10

max( ):-   It gives the maximum value from the given two numbers.

for e.g   jTextField1.setText(Math.max(59,99);   Ans : 99

jTextField1.setText(Math.max(-1, -10);   Ans : -1

min( ):-   It gives the minimum value from the given two numbers.

for e.g   jTextField1.setText(Math.min(59,99);   Ans : 59

jTextField1.setText(Math.min(-1, -10);   Ans : -10

TOPIC – HTML & XML(3-4 MARKS)

CONTENT – TAG AND THEORY QUESTION

HTML TAGS

DIFFERENT TAGS IN HTML	
 	BREAK A LINE
<HR>	HORIZONTLE RULE
<B>	BOLD
<I>	ITALIC
<U>	UNDERLINE
<strike>	TO STRIKE OFF
<SUB>	SUBSCRIPT
<SUP>	SUPERSCRIPT
<OL>	ORDERED LIST
<UL>	UNORDERED LIST
<DL>	DEFINITION LIST
<DT>	DEFINITION TERM
<DD>	DATA DEFINITION
<ALT>	ALTERNATIVE TEXT
<TABLE>	TO MAKE A TABLE
<TD>	TABLE DATA
<TH>	TABLE HEADER
<TR>	TABLE ROW
<LI>	LIST
<!-- , -->	USE COMMENTS
<P>	PARAGRAPH
<ALIGN>	TO SET ALIGNMENT
<BASEFONT>	TO SET BASEIC FONT SIZE
<HTML>	HTML DOCUMENT
<CENTRE>	TO ALIGN CENTRE
<THEAD>	TABLE HEADER
<TFOOT>	TABLE FOOTER
<VLINK>	VISITED LINK
<BORDER>	BORDER THE SURROUNDING
<A>	ANCHOR (TO DEFINE HYPERLINK)
DTD	DOCUMENT TYPE DEFINITION

HTML & XML THEORY

Q)	Answer the following questions ?
Q	What is HTML ?
	HTML is Hyper Text Markup Language. It is a scripting language to create web pages. HTML is made up of tags. In world wide web, web pages are written in a special language is called HTML.
Q	What is tags in HTML ?
	In HTML, tag means how the part of web page should be displayed. It help to include headings, paragraphs, and alignments. A tag is made up of a left angle bracket (<) , tag name and right angle bracket (>).
Q	What is the purpose of HTML and what is the extension of HTML ?
	HTML is a scripting language and it is used to create web page on world wide web.

	The extension of HTML is .html
Q	What are the features of HTML ?
ans	1. It is run on any computer platform DOS, UNIX ,windows etc 2. It can be written in any word document 3. It has specific syntax for formatting of text. 4. No specific compiler is required for viewing web pages.
Q	What is difference between HTML and XML ? VERY VERY IMPORTANT VIMP***
ans	<table><tr><th>HTML</th><th>XML</th></tr><tr><td>Hyper Text Markup Language</td><td>Extensible Markup Language</td></tr><tr><td>It is predefined.</td><td>It is not predefined.</td></tr><tr><td>wecann't create our own tags.</td><td>We can create our own tags.</td></tr><tr><td>HTML is not case sensitive.</td><td>XML is case sensitive.</td></tr><tr><td>HTML is focus on display data.</td><td>XML is focus on describe data.</td></tr></table>
Q	What is empty tag in HTML ?
ans	The tags do not have a closing tag is empty tag. for e.g and <HR>
Q	What is an attribute in HTML ?
ans	Attribute refers to the properties of HTML. fore.g<IMG> tag is used to display image in HTML page. This tag has certain attribute like height, width etc. which we specify.
Q	Write the name of HTML tag used to include an image in HTML Web page ?
ans	< IMG SRC > tag is used to include image.
Q	What is container tag ?
ans	In HTML, container is the area enclosed by the beginning and ending tags. fore.g<HTML> …………….. </HTML> , Similarly < BODY>………….. </BODY>
Q	Name the attributes of IMG tag ?
ans	SRC, ALIGN, BORDER , HEIGHT, WIDTH
Q	What is the purpose of <BODY> tag in HTML code ?
Ans:	BODY tag is used to display text, image and all the information you want to display. The different attributes of BODY tag BACKGROUND and BGCOLOR
Q	What is font tag ? Name the different attributes of FONT tag ?
Ans:	FONT tag is used to change size,color of text of HTML Page. The attributes of FONT tag are SIZE, FACE, COLOR etc.
Q	Write the HTML code to set the image "mountain.jpg" as backgroung stored in "MyPictures"folder in C:\.
Ans:	<BODY background = "C:\MyPictures\mountain.jpg">
Q	Identify the error(s) in the following HTML code. Also write the correct code . <BODY Color="Red" background = "school.jpg" >
Ans:	<BODY BGCOLOR = " Red" background = " school.jpg" >
Q	What is the purpose of TAGS <H1>…..<H6> ?
Ans:	HTML provides six levels of heading from H1,H2,…H6. H1 is the biggest font, and h6 is smallest font
Q	Write HTML code line to set the background image as CLOUDS.GIF ?
Ans:	<BODY BACKGROUND = " CLOUDS.GIF" >
Q	Write HTML code to set BGCOLOR as MAROON.
Ans:	< BODY BGCOLOR = " MAROON" >
Q	Write HTML code to set BGCOLOR as PURPLE and text " I am in Class XII-D" as BLUE
Ans:	< BODY BGCOLOR="PURPLE" TEXT="BLUE"> I am in class XII-D
Q	What will be displayed on the web page for the following HTML Command ? <I> Atomic weight of </I> O <sub> 2
Ans:	*Atomic weight of* O$_2$

Q	Write the HTML Command to display the following in your web page ?$X^2 + Y^2$
Ans:	X ² + Y ²
Q	What is the purpose of TYPE attribute used in list ?
Ans:	TYPE attribute specifies the type of numbering , bulleting (" circle","disc","square" etc)
Q	How can an image be inserted in a web page ?
Ans:	Using IMG tag
Q	What is definition list ?
Ans:	A definition list is not a list of single items. It is list of items with a description of each items Different tags are DL (definition list) , DT (definition term) and DD (definition description)
Q	Name the different attributes of IMG tag ?
Ans:	SRC, ALIGN, BORDER, HEIGHT, WIDTH
Q	Write HTML code for placing an image MOUNTAIN.GIF at the centre of web page.
Ans:	<CENTRE>< IMG SRC = " MOUNTAIN.GIF" ></CENTRE>
Q	The following code is written to align the image in centre in browser window. However the desire result is not achieved. Mention the reason : < IMG SRC = " house.gif" ALIGN = Centre >
Ans:	Code will not run , because centre is not an attribute of IMG Align
Q	What is the use of command BGCOLOR in HTML ?
Ans:	It Is used to set background
Q	Name any two attribute of HTML ?
Ans:	<IMG>,<HEIGHT>,<WIDTH>
Q	How are comments inserted in HTML code ?
Ans:	Comment are given by starting tage<!-- and ending tag _> For e.g< !-- This is written in comment tag -- >
Q	What is difference between BACKGROUND and BGCOLOR.
Ans:	BACKGROUNG is used to place object to make web page more attractive. BGCOLOR is used to set background color of your web page
Q	Distinguish between <SUP> and <SUB> tags with example ?
Ans:	<SUP> means superscript for e.g X^2 <SUB> means subscript for e.g H_2O
Q	What is <HR> tag in HTML ? Give any two attributes used with it ?
Ans:	It is used to draw horizontal rule. Two attributes are : ALIGN, SIZE
Q	What is BASEFONT tag ? Name two attributes of BASEFONT tag
Ans:	BASEFONT is used to change size and color. ATTRIBUTES are SIZE, FACE and COLOR
Q	Name HTML tag for making table and adding row in HTML ?
Ans :	TABLE and TR
Q	Write HTML code for following : to provide hyperlink to website : http://www.cbse.nic.in
Ans :	< A HREF = "http://www.cbse.nic.in "> (HREF : - IS USED TO PROVIDE HYPERLINK)
Q	What is cellspacing and cellpadding ?
Ans :	Cellspacing and cellpadding are table attributes used to set spacing between table cells. The default cellpadding width is 1 pixel. And The default cellspacing width is 2 pixel.

UNIT 3

RELATIONAL DATABASE MANAGEMENT SYSTEM(30 MARKS)

1	MY SQL THEORY - DATABASE THEORY - ALL KEYS - DDL, DML, TCL , DCL - ERROR BASED THEORY QUESTION - DESCRIBE TABLE - DELETE , DROP - COMMIT , ROLLBACK, SAVEPOINT - GROUP BY , ORDER BY, HAVING - CONSTRAINTS - GROUP FUNCTIONS(MIN,MAX,AVG,…..)	8
2	Miscellaneous Theory on MySQL.	
3	DEGREE AND CARDINALITY	2
4	QUESTION ON CREATE TABLE	2
5	JOIN and different joins in MYSQL	2
6	SINGLE TABLE DATABASE QUESTION (ALL in One Exercise)	6
7	SOLVED QUESTION ON SINGLE TABLE	
8	UNSOLVED EXERCISE ON SINGLE TABLE	
9	TWO TABLE QUESTION ON DATABASE	6
10	MYSQL FUNCTIONS	2
11	ERROR BASED ON MYSQL COMMANDS	2
12	GROUP BY COMMAND	
13	LAST FEW YEARS BOARD QUESTION FOR PRACTICE (5 SETS)	
	TOTAL MARKS	30

THEORY ON DATABASE CONCEPTS

Q) Define the term Data ?

Data : we come across different kinds of data in our day to day life.

For e.g teacher keeps records of students

School library keeps record of students and books.

These piece of information is called data.

Q) What is DBMS ?

Database : - is a collection of massive quantities of data in a container.

A DBMS is database management system is program that enables us to store , modify and extract information from the database.

For e.g Oracle , SQL , My SQL Server , MS Access etc.

Q) What is SQL ?

SQL is structure Query Language. A non-procedural query Language used for querying the database.

Q) What is MySQL? What are the features of MySQL?

MySQL is an open source RDBMS Software like Oracle, Sybase etc that uses Structured Query Language.

Features of MySQL :

    I)   Open Source and available at free cost
    II)   Fast and Reliable
    III)   Portable and secure
    IV)   Can be used with various programming platform.

Q)What is relation and tuple ?

A table is known as a relation and a row in the table is known as a tuple.

for e.g Consider the following STUDENT table, there are attributes ROLL_NO , S_NAME , MARKS.

Relation : STUDENTbn

ROLL_NO	S_NAME	MARKS
1	AMAN	97
2	BABLU	95
3	CHETAN	68
4	JOHN	94

Q)What is attribute ?

A column in the table is known as attribute.

for e.g In the above, STUDENT table ROLL_NO, S_NAME, MARKS are attributes.

Q) What is DBA?

Ans : Database Administrator is a person who is responsible for functioning of database.

Q)What is degree and cardinaliity ?

The total number of attributes in a relation is known as degree of relation.

And the number of rows or tuples in the relation is known as the cardinality of that relation.

for e.g In the above table STUDENT,

degree of relation is : 03

Cardinality of relation is : 04

Q) What are datatypes in MySQL ?

Ans : Data type is used to describe the kind of information a particular column holds. MySQL supports following data type

Numeric Data types : - integer, decimal

Date & Time data type : - Date, time

String Data type : char(size), varchar(size)

Q) What is domain and view?

Pool of values from which the actual values are derived from a column in the table.

View is virtual table that does not really exist in the database.

Q)What is key ?

In every relation, there is a key with a unique value for each row that is used to identify any tuple in the relation. It is known as key

Q)What is Primary key ?

A primary key is the key that uniquely identifies a particular record in a table or relation.

Primary Key

ROLL_NO	S_NAME	MARKS
1	AMAN	97
2	BABLU	95
3	CHETAN	68
4	JOHN	94

Q)What is candidate key?

If a table has more than one such attributes which are used to identify a table uniquely, then all such attributes are known as candidate key.

primary

key   candidate key

ROLL_NO	ADM_NO	S_NAME	MARKS
1	1254	AMAN	97
2	1267	BABLU	95
3	1302	CHETAN	68
4	1425	JOHN	94

Q) What is alternate key ?

In case of two or more candidate keys, only one of them serves as the primary key. The rest of them are alternate key.

A candidate key that is not primary key is called alternate key.

Primary   candidate   alternate

Key   key   key

ROLL_NO	ADM_NO	STU_ID_NO	S_NAME	MARKS
1	1254	A01	AMAN	97
2	1267	A02	BABLU	95
3	1302	A03	CHETAN	68
4	1425	A04	JOHN	94

Q)What is foreign key ?

A foreign key is a key which has reference in another table. It is a column in a table that is primary key of another table that means it has corresponding data in the other table.

For e.g In following table ROLLNo has a reference in other table, therefore ROLLNo is foreign key attribute.

Table : Student   Here, ROLLNo is foreign Key attribute

ROLLNo	NAME	Class	Stream
101	John	XI	Science
102	Albert	XI	Science
103	Leela	XI	Science

Table : Marks   Here, ROLLNo is foreign Key attribute

ROLLNo	Marks
101	98
102	95

Q) What is data redundancy ?

Ans : Data redundancy means duplication of data. Database becomes inconsistence due to data redundancy. So in order to make consistence database, the redundancy can be reduced. Also to avoid redundancy , duplicate records can be removed.

Q) What are Advantages/ features and Disadvantage of DBMS ?

1. Redundancy can be reduced
2. Inconsistency can be avoided
3. Data can be shared
4. Security restriction can be applied
Disadvantages of Database Management System

1. DBMS software is very costly
2. Expensive hardware and software requirement
3. Backup and recovering are more difficult.

Q) How the MySQL commands are classified? Give example?

DDL – DATA DEFINITION LANGUAGE

It defines the structure of the database. DDL used in creating, dropping, altering the table.

DML – DATA MANIPULATION LANGUAGE

It allows inserting, updating and deleting the rows of the table of database.

TCL – TRANSACTION CONTROL LANGUAGE

e.g COMMIT , ROLLBACK , SAVEPOINT

DCL – DATA CONTRON LANGUAGE

e.g GRANT , REVOKE

Q) What is Integrity Constraints?

An Integrity constraints or constraints are the rules, condition applicable to column or table which ensures the validity of data. The different constraints are

NOT NULL, DEFAULT, UNIQUE, PRIMARY KEY, FOREIGN KEY etc.

Q) What is difference between Unique constraints and Primary Key constraints?

Unique key allows NULL values but primary key does not.

There is only one primary key constraint in a table. There may be multiple columns may have unique constraints.

Q) What is data model and different types of data model?

Data model refers to how data are organized and stored in the database. The different data models are as follows :

1. Relational data model : In this model data is organized into tables i.e rows and columns.
2. Network data model : In this model relationship among data are represented by links.
3. Hierarchical data model : In this model records are organized as trees rather than arbitrary graphs.
4. Object Oriented data model : In this model data and associated operations are represented by objects.

Q) What is difference between CHAR and VARCHAR datatypes.

The difference between CHAR and VARCHAR is that of fixed length and variable length. When char(10) is given then MYSQL ensure that all values stored in that column have this length. If value is shorter than this length then blanks are added.

When varchar(10) is given then MySQL ensure that no blanks are added if length is shorter. and if we exceed the maximum length then an error message is displayed.

Q) What is single row functions(Scalar functions) and multiple row functions(Aggregate function)?

Single row function works with a single row at a time. Single row functions also called as **scalar functions**. For e.g year( ) , day( ) etc.

Multiple row functions is also called as **aggregate functions**. It works with multiple rows at a time and returns aggregate value. For e.g min( ) , max( ) , sum( ) , count( ) , Avg( ) etc.

MISCELLANEOUS THEORY QUESTIONS asked in Board PAPERS.

1	Write MY SQL COMMAND TO DISPLAY THE LIST OF EXISTING DATABASES ?
Ans	➢ SHOW DATABASES ;
2	Write my SQL command used to open an already existing database "student"
Ans	➢ Use student ;
3	Mr john wants to remove all the rows from emp table to release storage space, but he does not want to remove the structure of the table. What mysql statement should be?
Ans	➢ Delete from emp ;
4	Give one difference between COMMIT AND ROLLBACK
Ans	COMMIT : Ends the transaction and store the changes permanently in the database. ROLLBACK : undo all changes made in database.
5	A table Emp has degree of 5 and cardinality of 3. Another table Salary has degree of 4 and cardinatiy of 5. Find the Cartesian product of these two tables ?
Ans	Rows : 15 Columns : 9
6	Q) Table Employee has 4 records and table dept has 3 records in it. Mr. Jain want to display all information stored in both of these related tables. He forgot to specify equi-join condition in the query. How many rows will get displayed on execution of this query ?
Ans	4 x 3 = 12 rows or records
7	Mr. sunidhi created two tables with DeptNo as primary key in table1 and foreign key in table2. While inserting a row in table2, Mr. sunidhi is not able to enter a value In the column DeptNo. What could be the possible reason for it?
Ans	The deptNo being entered in table2 is not present in table1
8	Differentiate the commands in DML, DDL, TCL , DCL in SQL? INSERT , REVOKE, DELETE, SAVEPOINT, COMMIT, SELECT, DROP, ALTER, UPDATE, GRANT, ROLLBACK, CREATE
ans :	DDL : CREATE , ALTER , DROP

	DML : INSERT , UPDATE, DELETE, SELECT TCL : COMMIT, ROLLBACK, SAVEBACK DCL : GRANT, REVOKE
9	Mr. Sharma wrote the following command, which did not give the desired result. SELECT name,Class from students where stream = null or str_name="comp" ;
ans	SELECT name,Class from students where stream IS null or str_name="comp" ;
10	What is purpose of GROUP BY and how is it different from ORDER BY clause ?
ans	GROUP BY class is used to create group related summary present in the database. ORDER BY clause doesn't produce any group summary. Rather it arrange or sort the record in asecending or descending order.
11	Can a table have multiple primary key ?
ans	No
12	can a table have multiple foreign key ?
ans	yes
13	can we disable primary key ? How to drop or delete primary key ?
ans	No we cann't disable primary key. However we can drop or delete primary key by the following commands. ➤ ALTER TABLE EMP DROP PRIMARY KEY;
14	How to disable foreign key ?
ans	➤ SET Foreign_Key_Checks=0 ;
15	How to enable foreign key ?
ans	➤ SET Foreign_Key_Checks=1 ;
16	What do you mean group by clause ?
ans	sometime it is required to apply select command to the group of records instead of whole table, for that group by clause is used. It is applicable to non distinct (repeated) values only.

Q)	Differentiate between where clause and having clause ?
ans	where clause works in respect of whole table. Where clause is used to put the condition on individual row of the table. Having clause works in respect of groups only. Having clause is used to put the condition on group formed by group by clause.

Degree , Cardinality- 2 marks

Q) What is degree and cardinality in a relation ?

Ans : The number of attributes(or column) in a relation is called as degree.

The number of tuples (or row) in a relation is called as cardinality.

Relation : student

RollNo	SName	Marks
1	John	85
2	Sara	95

In the student table,

Degree = 03   &   Cardinality = 02

Q) A table "TRAINS" in a database has degree 3 and cardinality 8. What is the number of rows and columns in it ? DELHI 2011

Ans : No. of rows or tuples = 08

No. of columns or attributes = 03

Q) Table Hospital has 4 rows and 5 columns. What is the Cardinality and degree of this table? Delhi 2012

Ans : Degree = 05   &   Cardinality = 04

QUESTION ON CREATING SQL TABLE COMMAND – 2 Mks

1) Write MySQL Command for creating a table "BANK"whose structure is as given below:

Field Name	Data Type	Size	Constraint
Acc_number	Integer	4	Primary key
Name	Varchar	3	
BirthDate	Date		
Balance	Integer	8	NOT NULL

Ans :

CREATE TABLE BANK (Acct_number INTEGER (4) PRIMARY KEY,
Name VARCHAR(3) ,
BirthDate DATE,
Balance INTEGER (8) NOT NULL
) ;

2) Write MySQL Command for creating a table "STOCK"whose structure is as given below:

Field Name	Data Type	Size	Constraint
Id	Decimal	4	Primary key
Name	Varchar	20	
Company	Varchar	20	
Price	Decimal	8	NOT NULL

Ans :

CREATE TABLE STOCK

(Id decimal(4) Primary key,

Name Varchar(20),

Company Varchar(20),

Price Decimal(8)

);

3) Write MySQL Command for creating a table "TEAMS"whose structure is as given below:

Field Name	Data Type	Constraint
TeamCode	Varchar(5)	Primary key
TeamName	Varchar(20)	
TeamLeader	Varchar(20)	
Noofmember	Integer	
Team_Symbol	Char(1)	NOT NULL

Ans :

CREATE TABLE TEAMS

(TEAM CODE VARCHAR(5) PRIMARY KEY,

TEAMNAME VARCHAR(20) ,

TEAMLEADER VARCHAR(20),

NOOFMEMBER INTEGER,

TEAM_SYMBOL CHAR(1)

);

JOINS

Sometimes it requires to access the information from two or more tables, which needs joining of tables. Such queries are called as join query. MySQL facilitate you following joins:

1) Cross Join Or (Cartesian Product)
2) Equi join
3) Non-Equi join
4) Natural join

1) Cartesian Product (Cross Join) :- The product of two tables results into Cartesian product. All the records of the first table are concatenated with all the records of second table.

For e.g

Table : student

RollNo	Class	Sname
101	XI	SURESH
102	XI	MAHESH
103	XI	RAJESH

Table : marks

Marks	Sex
99.5	M
78.5	M
89.0	M

So, The Cartesian product of these two table becomes 3 x 3 =9 records

Cartesian product is given by SQL Query

➢ Select * from student cross join marks ;

RollNo	Class	Sname	Marks	Sex
101	XI	SURESH	99.5	M
101	XI	SURESH	78.5	M
101	XI	SURESH	89.0	M
102	XI	MAHESH	99.5	M
102	XI	MAHESH	78.5	M
102	XI	MAHESH	89.0	M
103	XI	RAJESH	99.5	M
103	XI	RAJESH	78.5	M
103	XI	RAJESH	89.0	M

Cartesian Product Questions

Q) What is Cartesian Product ?

Ans : Cartesian product of two table is concatenation of rows of two tables. It is denoted by x. The degree of new relation is sum of degrees of two relation on which Cartesian product is operated.

Q) A table FLIGHT has 4 rows and 2 columns and another table AIRHOSTESS has 3 rows and 4 columns. How many rows and columns will be there if we obtain the Cartesian product of these two table ?

Ans :   Rows or (tuples) = 4 rows in FLIGHT table x 3 rows in AIRHOSTESS table= 12 rows

Columns or (attributes) = 2 columns in FLIGHT table x 4 columns in AIRHOSTESS table = 8 columns

Therefore,

            Rows = 12

            Column = 8

Q) If R1 is a relation with 5 rows and R2 is a relation with 3 rows, how many rows will the Cartesian product of R1 and R2 have ?

Ans : No. of rows in Cartesian product = 15

2) Equi Join : In equi join, records are joined on equality condition. If two tables having some common in both of them. Then that is represented by equi join.

Table : student

RollNo	Class	Sname
101	XI	SURESH
102	XI	MAHESH
103	XI	RAJESH
104	XI	MANOJ

Tabel : marks

Sname	Marks	Sex
SURESH	99.5	M
RAJESH	78.5	M
MANOJ	89.0	M

The result non-equi join table will contain 6 columns but records are selected those having equal values.

RollNo	Class	Sname	Sname	Marks	Sex
101	XI	SURESH	SURESH	99.5	M
103	XI	RAJESH	RAJESH	78.5	M
104	XI	MANOJ	MANOJ	89.0	M

EXERCISE

Q) If we have two tables namely emp and salary , The emp table has degree of 3 and cardinality of 5. The table salary has degree of 2 and cardinality of 4. Then find the Cartesian product of these two tables.

Q) In a database , there are 2 tables Employee and Dept as shown below :

Table : Employee

EmpId	Name	Sal	Deptno
T001	Visakha	34000	10
T001	Mridul	32000	50
T001	Manish	45000	20

Table : Dept

DeptNo	DName	LocationID
10	Light	HH02
20	Dance	FF02
30	Production	AB01

a) What output will you get, when an equi-join query is executed to get Name from Employee table and Corresponding Dname from Dept table.

Ans :-

Name   DName

Visakha   Light
Manish   Dance

b) Identify the foreign Key in the Employee table

Ans : - DeptNo

3) Non-Equi Join : In non-equi join, records are joined on the condition other than equal operator.

Table : student   Tabel : marks

RollNo	Class	Sname
101	XI	SURESH
102	XI	MAHESH
103	XI	RAJESH

Sname	Marks	Sex
SURESH	99.5	M
RAJESH	78.5	M
MANOJ	89.0	M

The result non-equi join table will contain 6 columns but records are selected those having not equal values.

Then the non equi-join becomes

RollNo	Class	Sname	Sname	Marks	Sex
101	XI	SURESH	RAJESH	78.5	M
101	XI	SURESH	MANOJ	89.0	M

102	XI	MAHESH	SURESH	99.5	M
102	XI	MAHESH	RAJESH	78.5	M
102	XI	MAHESH	MANOJ	89.0	M
103	XI	RAJESH	SURESH	99.5	M
103	XI	RAJESH	MANOJ	89.0	M

4) Natual Join : In natural join is much similar to equi join i.e records are joined on equality condition except that common columns appears one time.

Table : student

RollNo	Class	Sname
101	XI	SURESH
102	XI	MAHESH
103	XI	RAJESH
104	XI	MANOJ
105	XI	RAZZAQ

Tabel : marks

Sname	Marks	Sex
SURESH	99.5	M
RAJESH	78.5	M
MANOJ	89.0	M

The result non-equi join table will contain 5 columns but records are selected those having equal values.

RollNo	Class	Sname	Marks	Sex
101	XI	SURESH	99.5	M
103	XI	RAJESH	78.5	M
104	XI	MANOJ	89.0	M

Q) What is difference between cross join (Cartesian join) and Natural join ?

Cross join (cartesian join)	Natural join
The product of two tables results into Cartesian product.	The join in which only one of the identical column exists is called natural join.

Q) What is Equi-Join ?

Ans :Equi-Join is used to extract meaningful information from Cartesian product of two tables by putting condion.

Q) How many rows and how many columns will be there in Cartesian product of these two tables?

Table : Customer

CUSTNO	DEPT	Cname

Tabel : Charges

101	ADMN	SURESH
102	SALES	MAHESH
103	SERVICE	RAJESH
104	TRANSIT	VINOD

CHARGES	Sex	Age
450	M	25
600	M	42
900	M	50

Ans : The first table customer contains 4 rows and 3 columns

The second table Charges contains 3 rows 3 columns

So Cartesian product becomes = 12 rows   and   6 columns

MySQL – SINGLE TABLE DATABASE QUESTION

Q) Consider the following table Employee given below and write SQL Commands

Table : Employee

EmpNo	Ename	Eage	Sex	ADDRESS	Salary	Hiredate	Designation
7839	Diwaker	42	M	Sarojini Nagar	70452	17-Nov-81	Manager
7698	Rajiv	27	M	KK Nagar	2233	01-May-81	Salesman
7782	Smith	30	F	Paschim Vihar	4190	19-Jun-81	Clerk
7566	Arpit	30	M	Dev Nagar	3378	02-Apr-81	Analyst
7654	Anandl	27	F	Dev Nagar	2775	28-Sep-80	Clerk
7698	Lisa	29	F	Sarojini Nagar	33432	01-May-89	HR
7365	Umesh	21	M	KK Nagar	2234	19-Dec-83	Analyst
7456	Yashraj	20	M	Paschim Vihar		02-Feb-84	Salesman
7258	Ganen	32	M	Babuji Nagar	6789	28-Mar-80	HR
7438	Harish	31	M	Babuji Nagar	6700	22-Jul-79	CMO

Write SQL command for the following ?	Answer is :
To display all the information about employees.	➢ select * from employee ;
To list all records of male working as clerk.	➢ select * from employee where sex='M' and designation ='CLERK' ;
To list the names of clerk female employee having	➢ Select ename from employee where sex='F' ,

salary more than 5000.	Designation='clerk' and salary > 5000 ;
To list the name of employee and salary in the ascending order of hiredate.	➢ Select ename ,sal from employee order by hiredate asc ;
To describe the structure of above table	➢ desc employee ;
To display name, age, salary of Manager only.	➢ select ename,eage,salary from employee where designation='Manager' ;
To count the no. of male employees living in sarojini nagar.	➢ select count(*) from employee where sex='M' and address='Sarojini nagar' ;
Write SQL command for the following ?	Answer is :
To arrange all the records in descending order of salary	➢ select * from employee order by salary desc ;
To insert one more row in above table 101,"suresh",21,M,"GOTA NGR",10000,22-JUL-98,MANAGER	➢ insert into Employee values (101,"suresh",21,M,"GOTA NGR",10000,22-JUL-98,MANAGER) ;
To add one more column "area" in table of char type	➢ Alter table employee add area char(30) ;
To add one more column " Phone " in table of integer type	➢ Alter table employee add phone integer(10) ;
To List all details of employee having no salary.	➢ select * from employee where salary IS NULL ;
To List all details of employee getting salary.	➢ select * from employee where salary IS NOT NULL ;
To list the name of employee started with character 'A'	➢ Select ename from employee where ename like 'A%' ;
To drop the table	➢ drop table employee ;
To delete the record having salary more than 20000	➢ delete from employee where salary >20000 ;
To count all the records of all employees who lives in KK NAGAR, SAROGINI NAGAR, GOTA NAGAR	➢ SELECT COUNT(*) FROM EMPLOYEE WHERE ADDRESS IN (KK NAGAR,SAROGINI NAGAR,GOTA NAGAR) ;
To increase the salary by bonus of 2000 of all employee	➢ UPDATE employee set salary =salary + 2000 ;
to increase the salary of manager by 50 %	➢ UPDATE employee set Salary = salary + 0.5 * salary where designation ="Manager" ;
To display unique or distinct designation	➢ select distinct(designation) from employee ;

To count unique designation from table	➢ select count(distinct(designation)) from employee ;
To display name of employee whose salary staring with '10'	➢ Select ename from employee where salary like "10%" ;
To display all records having 4 characters name.	➢ select * from employee where ename like "_ _ _ _ " ;
To display the name and age having 4 character name starting with 'R' .	➢ select ename,eage from employee where ename like 'R_ _ _' ;
To arrange all records of female in descending order of salary	➢ select * from employee where sex='F' and order by salary desc ;
To count all records who is either manager or clerk	➢ select count(*) from employee where designation='Manager' or designation='Clerk' ;
To display annual salary of all employee.	➢ select salary=salary*12 from employee ;
To display name having salary in between 20000 and 30000	➢ select ename from employee where salary BETWEEN 10000 AND 20000 ;
To display the sum of salary designation wise	➢ select designation,sum(salary) from employee group by designation

SOLVED QUESTIONS ON SINGLE TABLE

Q) Sai Babu a teacher by profession created a table named ASSIGNMENT to keep record of the assignment given to his student :
Write commands in SQL for i) to iv) and output for v) to viii)
ASSIGNMENT

AsnNo	Date	Topic	SubDate	Grade	Marks	TotalQues
12	2014-10-23	Greenhouse Gas	2014-10-27	5	15	3
13	2014-10-28	Methane	2014-11-05	10	15	5
14	2014-11-07	Chlorophyl	2014-11-10	5	10	2
15	2014-11-12	Respiration	2014-11-18	10	12	3
16	2014-11-20	Sexual Reproduction	2014-11-23	5	15	5
17	2014-12-28	Electricity	NULL	5	15	3

20	2015-01-15	Chemical Bonding	2015-01-20	5	10	2
21	2015-01-17	Carbon	NULL	10	10	2

i) to display the list of all the assignment which are graded as 5

ii) to display list of recent topics to old topics of assignments

iii) to list all assignment where topic has the letters 'Re' in it

iv) to list all Assignments which is not having any Submission Date.

v) select AsnNo, Date , Topic from Assignment where Topic like 'C%' and Grade <=5

vi) select Marks/TotalQues as Weight from Assignment where Date > '2014-11-20';

vii) select concat(mid(Topic , 1,4),'-',Year(SubDate)) from Assignment
     where TotalQues < 3;

viii) select Topic from Assignment where DateDiff(SubDate , Date) <= 4

ANS : -

i)   SELECT * FROM ASSIGNMENT WHERE GRADE = 5;

ii)   SELECT Topic FROM ASSIGNMENT ORDER BY Date desc;

iii)   SELECT * FROM ASSIGNMENT WHERE Topic like '%Re%;

iv)   SELECT * FROM ASSIGNMENT WHERE SubDate IS NULL;

(1 mark for each correct query)

OUTPUT

V)   AsnNo   Date   Topic

14	2014-11-07	Chlorophyl
20	2015-01-15	Chemical Bonding

vi) Weight

5

5

5

vii) concat(mid(Topic,1,4),'-', Year(SubDate)

Chlo-2014

Chem-2015

NULL

viii) Topic

Greenhouse Gas

Chlorophyl

Sexual Reproduction

Q) Consider the table **Flight** given below, write command in SQL for (1) to (4) and output for (5) to (8).

Table : **FLIGHT**

Flight_No	Origin	Destination	Seats	FlightDate	Rate
1005	Varanasi	Nepal	275	12-Dec-07	3000
2785	Delhi	Kerala	290	17-Jan-08	5500
6587	Mumbai	Varanasi	435	19-Feb-08	5000
1265	Varanasi	Nepal	200	02-Jan-08	5400
4457	Delhi	Lucknow	150	22-Feb-08	4500
6856	Varanasi	Mumbai	180	03-Mar-08	6000

(1) To display Flight flying between Varanasi and Nepal.

(2) To display the different Origin of Flights.

(3) To display list of flights in descending order of Rate.

(4) To display flight details of the flight whose flightdate is after Jan 2008.

(5) SELECT Flight_No, Destination FROM Flight WHERE Destination LIKE '_u%';

(6) SELECT Origin, COUNT(*) FROM Flight GROUP BY Origin;

(7) SELECT Origin, Destination FROM Flight WHERE seats>400;

(8) SELECT SUM(Rate),MAX(Seats) FROM Flight;
ANS :

1) SELECT * FROM FLIGHT WHERE ORIGIN = 'VARANASI' AND DESTINATION='NEPAL'

2) SELECT (DISTINCT ORIGIN) FROM FLIGHT;

3) SELECT * FROM FLIGHT ORDER BY RATE;

4) SELECT * FROM FLIGHT WHERE FLIGHTDATE>'31-01-2008';   [1*4]

5) 6587 VARANASI

6) VARANASI 3   DELHI 2 MUMBAI 1

7) MUMBAI   VARANASI

8) 29400   435

Q) Write SQL commands for the queries given below on a table LIBRARY showing the details of Books :

Table: LIBRARY

SNo.	Title	Author	Subject	Publisher	Quantity	Price
1	Data Structure	Lipschute	DS	McGraw	4	217.00
2	DOS Guide	NORTRON	OS	PHI	3	175.00
3	Turbo C++	RobortLafore	Prog	Galgotia	5	270.00
4	Dbase Dummies	Palmer	DBMS	PustakM	7	130.00
5	Mastering Windows	Cowart	OS	BPB	1	225.00
6	Computer Studies	French	FND	Galgotia	2	75.00
7	COBOL	Stern	Prog	John W	4	1000.00
8	Guide Network	Freed	NET	Zpress	3	200.00
9	Basic for Beginners	Norton	Prog	BPB	3	40.00
10	Advanced Pascal	Schildt	Prog	McGraw	4	350.00

i.   Display the title of all books with Price in the range 100 to 300.

ii.   Display the Author of all the books whose title starts with "D " .   (1)

iii.   Arrange all the books of library in increasing order of their quantity.   (1).

iv.   Display the detail of book written by " RobortLafore" .   (1)

v.   Change the price of all books by applying 10% discount reduction.

       (1)

       ANS :

       I)   > SELECT TITLE, PRICE FROM LIBRARY WHERE PRICE BETWEEN 100 AND 300 ;

       II)   > SELECT AUTHOR FROM LIBRARY WHERE TITLE LIKE "D%";

       III)   > SELECT * FROM LIBRARY ORDER BY QUANTITY ASC;

       IV)   > SELECT * FROM LIBRARY WHERE AUTHOR = " RobortLafore" ;

                   V)   > UPDATE LIBRARY SET PRICE=PRICE - (10/100) * PRICE   ;

TWO TABLE QUESTIONS ON DATABASE

Q) Consider the tables Doctors and Patient given below:

Table : Doctors

DocID	DocName	Department	OPD_days
101	K.K.Mathur	ENT	TTS
102	Ashish Sharma	Paed	MWF
201	Vivek Khurana	Ortho	MWF

Table : Patients

PatNo	PatName	Department	DocID
1	Akash	ENT	101
2	Sameer	Ortho	201
3	Rahul	ENT	101
4	Neha	Paed	102
5	Manoj	Ortho	201

With reference to these two tables, write a SQL query for (i) and (ii) and output for (iii).

(1) Display Patient Name,Patient No and corresponding doctor name for each patient.   (2)

(2) Display the list of all patients whose OPD_days are 'TTS'.   (2)

(3) SELECT OPD_days,count(*)   (2)

     FROM Doctors,Patients

     WHERE Doctors.Department = Patients.Department

     GROUP BY OPD_days;

ANS:

(1) SELECT PatName,PatNo,DocName FROM DOCTORS, PATIENTS WHERE
         DOCTOR.DOCID=PATIENT.DOCID;   **(2 mark)**
(2) SELECT * FROM DOCTORS, PATIENTS WHERE DOCTOR.DOCID=PATIENT.DOCID
      AND OPD_Days='TTS';   **(2 mark)**
(3) Output :   OPD_days   Count(*)
                    TTS   2
                    MWF   3

Q) Consider the tables CUSTOMER AND PRODUCT_ENQUIRY in relation :   **(6)**
                CUSTOMER

Cust_Id	Cust_Name	Address	Phone	PinCode
111	CHMS Kumar	KOLKATA	2309749989	750020
222	TS RAO	VIZAG	9867272673	700056
333	UN JHA	DELHI	8798279389	207688
444	RAM SINGH	VARANASI	8568299898	309023
555	DILIP YADAV	BARODA	8725637377	828378

PRODUCT_ENQUIRY

Enq_Num	Product	Cust_Id	RateQuoted	Order_Days
1678	GANESH JUICER	111	900.00	7
1222	JAIPAN GRINDER	333	1200.00	5
1289	SHAURYA HEATER	222	1000.00	8
3478	JAIPAN GRINDER	444	1500.00	4
3567	TERRA BLENDER	222	345.00	8
3888	SISKA MICRO-OVEN	555	3500.00	5
2876	JAIPAN GRINDER	222	1300.00	4

With reference to these tables , write the commands in SQL for i) and ii) and ouput for iii) below
       i) to display customer names , phone and product enquired , for whom expected
          order days is less than 6.
       ii) to display total product enquired and sum of rate quoted for all customers

iii) SELECT Product , Sum(RateQuoted) , AVG(Order_Days)
   From PRODUCT_ENQUIRY GROUP BY Product
   HAVING AVG(Order_Days) <=5;

ANS:

i)   SELECT Cust_Name , Phone , Product
      FROM CUSTOMER , PRODUCT_ENQUIRY
      WHERE CUSTOMER.Cust_Id = PRODUCT_ENQUIRY.Cust_Id
      AND Order_Days < 6;

ii)   SELECT count(Product) as Total , sum(RateQuoted)
      FROM CUSTOMER , PRODUCT_ENQUIRY
      WHERE CUSTOMER.Cust_Id = PRODUCT_ENQUIRY.Cust_Id
      GROUP BY CUSTOMER.Cust_Id;

      (1 mark for correct use of select and from)
      1mark for correct use of where and group by clause)

iii) Product   Sum(RateQuoted)   AVG(Order_days)

      JAIPAN GRINDER   4000   4.3
      SISKA MICRO_OVEN   3500   5

(c) Study the following table TEACHER and SALARY and write the SQL commands for the
    questions (i) and (ii) and give outputs for SQL queries (iii) and (iv)

Table : TEACHER

SID	NAME	DEPT	SEX	EXPERIENCE
101	Siddharth	Computer	M	12
104	Raghav	Physics	M	5
107	Naman	Chemistry	M	10
114	Nupur	Computer	F	3
109	Janvi	Physics	F	9
105	Rama	Accounts	M	10
117	James	Computer	F	3
111	Binoy	Accounts	F	12
130	Samuel	Computer	M	15

Table : SALARY

SID	BASIC	ALLOWANCE	DA
101	12000	1000	300
104	23000	2300	500
107	32000	4000	500
114	12000	5200	1000
109	42000	1700	200
105	18900	1690	300
130	21700	2600	300

   i.   Display NAME and DA of all staff who are in Accounts department and having
more than 10 years of experience and DA is more than 300.   [2]

   ii.   Display the NAME and salary of all staff working in physics department and salary more than average
salary. (SALARY=BASIC +ALLOWANCE+ DA)   [2]

   iii.   Select NAME, DA, BASIC from TEACHER, SALARY
Where BASIC>20000 and TEACHER.SID=SALARY.SID;   [1]

   iv.   Select NAME, DEPT, SEX, BASIC, DA from TEACHER, SALARY
Where DEPT LIKE '%o%' and DA >=500 and TEACHER.SID=SALARY.SID;

ANS:

i.   select name, da from teacher, salary where teacher.sid = salary.sid
and dept = "accounts" and da > 300 and experience > 10;   2 m

   ii. selectname, salary from teacher, salary where teacher.sid = salary.sid

anddept = "physics and basic+allowance+da> (select

avg(basic+allowance+da) from salary)   2 m

   iii.   raghav 500   23000

        naman   500 32000

        janai   200 42000   1 m

   iv. nupur   computer f 12000 1000   1m

Q) Consider the tables given below.

Table : STOCK

Itcode	Itname	Dcode	Qty	unitpr	Stkdate
444	Drawing Copy	101	10	22	31-June-2009
445	Sharpener Camlin	102	25	13	21-Apr-2010
450	Eraser Natraj	101	40	6	11-Dec-2010
452	Gel Pen Montex	103	80	10	03-Jan-2010
457	Geometry Box	101	65	65	15-Nov-2009
467	Parker Premium	102	40	109	27-Oct-2009
469	Office File	103	27	34	13-Sep-2010

Table : DEALERS

Dcode	Dname	Location
101	Vikash Stationers	Lanka Varanasi
102	Bharat Drawing Emporium	Luxa Varanasi
103	Banaras Books Corporation	Bansphatak Varanasi

With reference to these tables, write commands in SQL for (i) and (ii) and output for (iii) below-

(i)   To display the amount that has been spent to purchase Office file & Sharpener camlin.

(ii)   To display all the items of Vikash Stationers.

(III)   SELECT DCODE,COUNT(QTY),AVG(UNITPR) FROM STOCK GROUP BY DCODE;

ANS :

1) SELECT QTY*UNITPR AS AMOUNT FROM STOCK WHERE ITNAME='OFFICE FILE' AND ITNAME='SHRAPENER CAMLIN';

2) SELECT * FROM STOCK , DELAER WHERE STOCK.DNAME="VIKASH STATIONERS";

3) 101 3   31

  102 2   61

  103 2   22

MYSQL FUNCTIONS – 2 MKS

Q) What is in built function in MySQL?

Ans In built function has capabilities to perform a routine tasks

such as to find maximum or minimum from given set a values or to convert string type values   in lower and upper case etc.

Q) What are types of functions in MySQL?

Ans : I) Single Row functions – String functions, Numeric functions, Date/Time functions

II) Multiple Row functions / Aggregate function – Min( ) , Max( ), sum( ) , count( ), avg( )

Q) What is aggregate functions ? Name different aggregate functions ?

Ans : The function which performs on the set of values and returns a single value is called as aggregate function or multiple row function.

For e.g Min( ) , Max( ), sum( ) , count( ), avg( )

Q) What are different string functions ?

STRING FUNCTIONS :

1. LENGTH() : Returns the length of a string in

bytes/no. of characters in string.

- Example: LENGTH('INFORMATICS'); Result:11

2. CHAR() : Returns the corresponding ASCII

character for each integer passed.

- Example : CHAR(65) ;   Result : A

3. CONCAT(): Returns concatenated string i.e. it adds strings.

- Example : CONCAT('Informatics',' ','Practices'); Result : ''Informatics Practices'

4. INSTR(): Returns the index of the first occurrence of substring.

- Example : INSTR('Informatics',' mat'); Result : 6(since 'm' of 'mat' is at 6th place)

5. LOWER()/ LCASE(): Returns the argument after converting it in lowercase.

- Example: LOWER('INFORMATICS'); Result : informatics

6. UPPER()/ UCASE(): Returns the argument after converting it in uppercase.

- Example: UCASE('informatics'); Result : INFORMATICS

7. LEFT() : Returns the given number of characters by extracting them from the left side of the given string

- Example : LEFT('INFORMATICS PRACTICES', 3); Result : INF

8. RIGHT(): Returns the given number of characters by extracting them from the right side of the given string

- Example : RIGHT('INFORMATICS PRACTICES',3); Result : CES

9. MID(): Returns a substring starting from the specified position in a given string.

- Example: MID('INFORMATICS PRACTICES',3,4); Result : FORM

10. SUBSTR() : Returns a substring from a given string.

- Example: SUBSTR('INFORMATICS' , 3 , 4) ; Result : FORM

11. LTRIM() : Removes leading spaces.

- Example : LTRIM('   INFORMATICS'); Result: 'INFORMATICS'
12. RTRIM(): Removes trailing spaces.

- Example : RTRIM('INFORMATICS   '); Result: 'INFORMATICS'

13. TRIM() : Removes leading and trailing spaces.

- Example: TRIM('   INFORMATICS   '); Result: 'INFORMATICS'

Q) What are different NUMERIC FUNCTIONS?

1. POWER() : Returns the argument raised to the specified power. POW () works the same way.

- Example: i) POW(2,4)   Result:16
              ii) POW(2,-2)   Result:0.25

              iii)POW(-2,3)   Result: -8

2. ROUND() : ROUND(X) Rounds the argument to the zero decimal place, Where as ROUND(X,d) rounds the argument to d decimal places.

- Example   i) ROUND(1.28)   Result: 1
             ii) ROUND(3.798, 1)   Result: 3.8

iii) ROUND(23.298, -1) Result: 20

iv) ROUND(25.298,-1) Result: 30

3.TRUNCATE() : Truncates the argument to specified number of decimal places.

- Example: (i) TRUNCATE (7.29,1)   Result: 7.2
        (ii) TRUNCATE(27.29,-1) Result: 20

4. SIGN() : Returns sign of a given number.

- Example : (i) SIGN (15)   Result : 1
        (ii) SIGN (-15)   Result : -1

        (iii) SIGN (0)   Result : 0.

5. SQRT : Returns the square root of given number.

- Example : (i) SQRT (25)   Result : 5

Q) WHAT ARE DIFFERENT DATE AND TIME FUNCTIONS?

1. CURDATE() : Returns the current date

- Example: CURDATE();   Result: '2015-06-04'

2. NOW() : Returns the current date and time

- Example: NOW();   Result : '2015-06-04 13:58:11'

3. SYSDATE() : Return the time at which the function executes.

- Example: SYSDATE(); Result: '2015-06-04 13:59:23'

4.DATE() : Extracts the date part of a date or date time expression

- Example: DATE('2003-12-31 01:02:03'); Result:: '2003-12-31'

5. MONTH() Returns the month from the date passed

- Example: MONTH('2010-07-21'); Result : 7

6. YEAR() : Returns the year.

- Example: YEAR('2010-07-21'); Result : 2010

MYSQL FUNCTION QUESTIONS	OUTPUT ANSWER
➢ SELECT ROUND(1023.432 ,1);	➢ 1023.4
➢ SELECT LENGTH("ABP PVT. LTD.");	➢ 13
➢ SELECT UCASE("kvnfr");	➢ KVNFR
➢ SELECT POW(2,3);	➢ 8
➢ SELECT POW(5,0);	➢ 1
➢ SELECT CEIL(120.0) ;	➢ 120
➢ SELECT CEIL(324.3);	➢ 324
➢ SELECT CEIL(199.9);	➢ 200
➢ SELECT MOD(36,3);	➢ 0
➢ SELECT MOD(27,4);	➢ 3
➢ SELECT SQRT(144);	➢ 12
➢ SEELCT MOD(14*9 , 90/9);	➢ 6
➢ SELECT MOD(9*5 , 9) + CEIL(199.9) ;	➢ 200
➢ SELECT SUBSTRING("DPS CONVENT",3);	➢ S CONVENT
➢ SELECT MID("INFORMATICS",3);	➢ FORMATICS
➢ SELECT SUBSTRING("INDIA",3,3);	➢ DIA
➢ SELECT LCASE("TEHALAKA.COM");	➢ tehlaka.com
➢ SELECT LTRIM(" KVNFR");	➢ KVNFR
➢ SELECT RTRIM(" MALIGAON ");	➢ MALIGAON
➢ SELECT TRIM(" INDIA ");	➢ INDIA
➢ SELECT CONCAT("HEERA","PANNA");	➢ HEERAPANNA
➢ SELECT TRUNCATE(543.2134, 2);	➢ 543.21
➢ SELECT MONTH("2013-07-23");	➢ 07
➢ SELECT YEAR("1988-09-07");	➢ 1988
➢ SELECT TRUNCATE(1254,-2)	➢ 1200
➢ SELECT TRUNCATE(78, -1) ;	➢ 70

MySQL ERROR BASED QUESTIONS – 02 Marks Question

	ANSWER THE FOLLOWING QUESTIONS	
1	Mr. Joseph is using table STUDENT with the following attributes : RNO,Name,Marks,Age Now he wants to display the information of students in the descending order of marks. For that he wrote the following command. But he did not get the desire output. select * from student order by marks ; Rewrite the above query to get the desire output.	
2	The following SELECT statement used in Emp table to display name and 10% increased salary is SELECT NAME , SALARY + 0.10 FROM EMP ; This statement is not getting the desired output. Write the correct statement to get the desired output	
3	Ranjan, a student of class XII, Created a table " report ". Grade is one of the column in the table. To find the details of students whose grade have not been entered. He wrote the following query, which flags some error. SELECT * FROM REPORT WHERE GRADE = "NULL" ; Help the ranjan to solve the error in the query and rewrite the correct query ?	
4	Pooja, a student of class XI, created a table "BOOK". Price is the column of this table. To find the details of books whose prices have not been entered she wrote the following query : SELECT * FROM CUSTOMER WHERE PRICE = NULL ; Help pooja to run the query by removing the errors from the query and rewrite it.	
5	Whether the following query is written correctely SELECT MAX(salary) from Emp ; Which type of MySQL function is used in this query.	
6	What is the following query doing ? ALTER TABLE PERSONS DROP PRIMARY KEY ;	
7	"NAME" is a column in the table " Student", The SQL Queries	

	SELECT COUNT(*) FROM STUDENT ; AND SELECT COUNT(NAME) FROM STUDENT ; Give the result 30 and 29 respectively. What may be possible reason for this discrepancy ? How many total records must be there in the table 30 or 29 ?	
8	Ma. Vivek needs to display name of the those students who have "A" as the second character in their name. She writes the following SQL QUERY. SELECT *FROM STUDENT WHERE NAME LIKE "*a%" ; BUT the query is not producing the result. Identify the problem.	
9	Meenal uses a student table with attributes name , courseID , courseNAME She needs to display names of students who have not been assigned any course or have been assigned " Pathology" course. Pathology courses names ends with "Pathology". She wrote the following query : SELECT * FROM STUDENT WHERE COURSENAME = NULL OR COURSENAME = "%PATHOLOGY" ; But the query is not producing the result. Identify the problem .	
10	Mr. Verma is using a table student. It has the following columns : admno, Name, marks, Stream He wants to display highest marks in each stream. He wrote the following statement : select stream, max(marks) from student ; But he did not get the desired result. Rewrite the above query with necessary changes to help him to get desired output.	

ANSWERS :

1	➢ SELECT * FROM STUDENT ORDER BY MARKS DESC ;
2	➢ SELECT NAME, SALARY+ (0.10*SALARY) FROM EMP ;
3	➢ SELECT * FROM REPORT WHERE GRADE IS NULL ;
4	➢ SELECT * FROM BOOK WHERE PRICE IS NULL ;

5	➢ YES . IT IS AGGREGATE FUNCTION.
6	➢ THIS QUERY IS USED TO REMOVE THE PRIMARY KEY IN THE TABLE.
7	➢ ONE RECORD MUST BE NULL. TOTAL RECORDS 30.
8	➢ SELECT * FROM STUDENT WHERE NAME LIKE "_A%" ;
9	➢ SELECT * FROM STUDENT WHERE COURSENAME IS NULL OR COURSENAME LIKE "%PATHOLOGY";
10	➢ SELECT STREAM , MAX(MARKS) FROM STUDENT GROUP BY STREAM;

GROUP BY CLAUSE

Table : Student

RollNo	Name	Class	Marks	Stream	GENDER
101	Abhay	X	85	commerce	M
102	Babu	XII	96	commerce	M
103	Chetan	XI	67	science	F
104	suresh	VIII	45	arts	M
105	Manoj	VI	86	science	F
106	abhishek	V	94	arts	F
107	Eshan	IV	69	science	M

Q) WRITE A COMMAND TO DISPLAY GENDER , MIN(MARKS) GENDER WISE.

> SELECT GENDER , MIN(MARKS) FROM STUDENT GROUP BY GENDER;

GENDER   MIN(MARKS)

M   45

F   67

Q) Write a command to display total marks in each streram ?

➢ SELECT STREAM , sum(MARKS) FROM STUDENT
  GROUP BY STREAM ;

Q) Write a command to display maximum marks in each streram ?

> select stream, max(marks) from student group by stream ;

STREAM   MAX(MARKS)

COMMERCE   96

ARTS   94

SCIENCE   86

UNIT - 4

IT APPLICATION (5 Marks)

1) What is front end application ?
   Ans : front end application interact with the user and collects inputs from the user and passing it over to backend.
   For e.g Java netbeans etc.

2) What is back end application ?
   Ans : A back end is a application that is not visible to the user but that processes the user requests received from front end.
   For eg MySQL, Oracle , MS Access etc

3) What is e Governance ?
   Ans : e Governance is use of internet technology by Govt to improve effectiveness of services.
   For e.g incometax , passport , defence , Indiancourt etc

4) Name the different portal or domain name or web site that provide e Governance ?
   Ans : Passport.gov.in , incometax.gov.in , drdo.nic.in , rti.gov.in , indiancourt.in etc

5) What are social impacts of eGovernance or Importance of eGovernance or Objective of eGovernance ?
   Ans: i) improve the efficiency of administration
   ii) reduce waiting time
   iii) reduce cost
   iv) keeps tab on corruption
   v) increase transparency
   vi) increase public participation

6) What are negative social impacts of eGovernance?
   Ans : i) people in remote areas cann't be benefitted
    ii) lack of awareness
   iii) People find inconvenience to make online payment

7) What is e Business ?
   Ans : eBusiness or electronic commerce is use of internet technology in process of buying, selling, transferring, exchanging services for e.g IRCTC, YATRA.COM, EBAY.COM

8) Name the different portals in e Business ?
   Ans : IRCTC, YATRA.COM, LIC , E BANKING, EBAY.IN etc.

9) What are social impacts of eBusiness or Importance of eBusiness or Objective of eBusiness ?

Ans : i) improve the speed of response

ii) improve the customer services

iii) increased efficiency

iv) access to international market

10) What are negative social impacts of eBusiness ?

Ans : i) connectivity problem

ii) not trustworthy

iii) very risky to make online payment

iv) risk of hacking password

11) What is eLearning ?

Ans : eLearning is use of information technology in teaching through CD, CDROM, LCD Project, DVD Multimedia, interactive Board etc. Some eLearning portals are cbseguide.com, cbsesample papers.com, ask.com, meritnation.com etc

12) Name the different portal in eLearning ?

Ans : cbseguide.com, cbsesample papers.com, ask.com , w3schools.com , onlinelearning.com ncert.com , meritnation etc

13) What are social impacts of eLearning or Importance of eLearning or Objective of eLearning ?

Ans : i) available the same course to millions

ii) on – off learning from home

iii) special learning package for slow learners

iv) easy learning – not to depend on chalk and talk teaching method

14) What are negative impact of eLearning ?

Ans : i) High cost resources   ii) facilities are available mainly in metro cities not in remote areas.

15) Mr. Anurag Das working as Manager in Vivian Enterprises wants to create a form in Netbeans to make various inputs from user. Choose appropriate controls from Label, Text Box, Radio Button, Check Box, List Box, Combo Box and Command Button and write them in the third column :

S.No.	Control used to	Control
1.	Enter Name, Address and Salary	
2.	Select Gender (Male/ Female)	
3.	Select Department from available list	
4.	Choose Hobbies of Employee (Singing / Dancing/Skating/ Swimming)	

Ans:

1.	Enter Name, Address and Salary	Text Field
2.	Select Gender (Male/ Female)	Radio Button/Combo Box
3.	Select Department from available list	Combo Box
4.	Choose Hobbies of Employee (Singing / Dancing/Skating/ Swimming)	Check Box/ List Box

16) Mr. Karan Malhotra works for the Customs Department. He wishes to create controls on the form for the following functions. Choose appropriate controls from Text box, Label, Option button, Check box, Combo box, Command button and write in the third column

S.no	Control used	Control
1.	To Enter last name	
2.	To Choose Gender (M/F)	
3.	To Choose the name of country That issued passport	
4.	Submit form	

Ans:

1.	To Enter last name	Textfield
2.	To Choose Gender (M/F)	Radiobutton
3.	To Choose the name of country That issued passport	List/Combobox
4.	Submit form	Button

Good Luck