

Short Questions:

(2 marks each)

Q1. What is Cyber Crime?

Cybercrime, or computer-oriented crime, is a crime that involves a computer and a network. The computer may have been used in the commission of a crime, or it may be the target.

Q2. What is difference between 3-D and 2-D?

2D Graphics means showing graphics in two axis (An axis is an imaginary line that passes through the origin point of a geometric coordinate system). Most of the graphics you see are 2D Graphics. 3D Graphics means showing Graphics in 3 axis.

Q3. Tell me about interface?

Interface is the point of interaction or communication between a computer and any other entity, such as a printer or human operator.

Q4. What is heuristic?

Heuristic is a procedure that usually, but not always, works or that gives nearly the right answer.

Q5. How can we include images in a web page using HTML and JavaScript? Image in HTML

`` Image in JavaScript Images in JavaScript can be manipulated in many ways using the built-in object Image. Additional properties to HTML are hspace, vspace & lowsrc. Example: It can be used by many handlers like, onAbort, onLoad & onError.

Q6. What are Trojan Horses?

Trojan Horses are unlike viruses, they are stand-alone programs. They look like what they are not. They appear to be something interesting and harmless (e.g. a game) but when their execution result in destruction

Q7. What is an intelligent system?

Intelligent system is a SW programs or SW/HW systems designed to perform complex tasks employing strategies that mimic some aspect of human thought.

Q8. In programming, what is a loop?

A loop is a programming language statement which allows code to be repeatedly executed.

Q9. What is the function of Network Interface Card?

NIC is an I/O device that plugs into the computer and it enables it to communicate over a network

Q10. What BIOS stands for?

BIOS stand for Basic input/output system.

Short Questions:

(3 marks each)

Q1. Why Multiple processors are used in Super Computers?

One very powerful processor is a lot more expensive than thousands of small processors. Multiple processors running in parallel can perform tasks as efficiently as the single most powerful chip available, but at a lot less cost. Hence it is very economical to use multiple smaller processors working in parallel than a single powerful processor in supercomputers.

Q2. Classify the different types of memory.

1. Main memory (usually **RAM**: Random Access Memory)
2. **ROM** (Read Only Memory used to hold BIOS (Basic Input Output System))
3. **Cache Memory** (on both board & processor)
4. **Virtual memory** (RAM on disk) (Note: Keep the difference between memory and storage in mind.)

Q3. What is URL?

A Uniform Resource Locator, colloquially termed a web address, is a reference to a web resource that specifies its location on a computer network and a mechanism for retrieving it. A URL is a specific type of Uniform Resource Identifier, although many people use the two terms interchangeably.

Q4. What is the different between HYPERLINK and HYPER MEDIA?

Essentially, hypermedia is the modern extension of hypertext, the hyperlinked, text-based documents of the original Internet. Hypermedia attempts to offer a working and learning environment that parallels human thinking—that is, one in which the user can make associations between topics, rather than move sequentially from one to the next, as in an alphabetic list. An image or portion of text on a Web page that is linked to another Web page, either on the same site or in another Web site is called Hyperlink. via email means through email.

Q5. What is the difference between "Compiler" and "Interpreter"?

A compiler is a special program that processes statements written in a particular programming language (source code) and turns them into machine language or "code" that a computer's processor uses. Compiler converts the source code into object code only once. It doesn't need every time this conversion while execution. Interpreter does the same thing but it converts the code line by line each time while executing the program.

Q6. Differentiate uni-Processor OS from Multi-Processor OS. ?

Uni-processor OS'es is designed to schedule tasks on a single uP only whereas Multiprocessor OS'es can control computers having multiple uPs, at times 1000's of them.

Q7. What is output of the following JavaScript code ?

```
Str="Virtual University of Pakistan";  
document.write(str.substring(5,str.length)) ;
```

Q8. Differentiate Local and Global Variables

Local variables are the variables have limited scope while global have bigger scope Local variables are not accessed by others while global is accessible to every one Local variable used by single user while global variable can be used by different users at time from all around.

Q9. What are the elements of website design? Any one

Elements of web design There are in 3 elements of web design and below are their names:

1. Navigation scheme
2. Overall look and feel
3. Layout of information:

Q10. How many types of errors can be found during a program development? List them.

1. Syntax errors
2. Semantic errors
3. Run-time errors

Long Questions:

(5 marks each)

Q1. Suppose we have a big project. Draw hierarchy of the people involved in the project?

- ❖ Executive Team
- ❖ CEO,
- ❖ COO,
- ❖ CMSO
- ❖ Quality Architecture Team
- ❖ Business Development Team
- ❖ Technology Transfer Team
- ❖ Process Team
- ❖ Quality Assurance Team
- ❖ Support Team
- ❖ Configuration Management Team
- ❖ Development Team D
- ❖ Development Team C
- ❖ Development Team B
- ❖ Development Team A

Q2. What is a packet in the network environment? What kind of information does it contain?

A packet is the smallest unit of data transmitted over a computer network. It's a message to be transferred over the network is broken up into small packets by the sending computer. Each packet contains the following info: –Sender's address –Destination address –Data – Error-recovery info.

Q3. What will be the output of this program? Write comments where you find “//” symbol in the following code.

```
<html>

<head>
<script language="JavaScript">
function doSomething() { // 1
setTimeout('doSomething()',10000); // 2 }
</script>
</head>
<body onLoad="doSomething()"> // 3
document.write("Virtual University of Pakistan");
</body>
</html>
// 3 document.write("Virtual University of Pakistan");
```

Q4. What are the advantages of multimedia presentations? Write any five.

Following are the advantages of multimedia presentations.

- ❖ Great tool for effectively communicating ideas to an audience
- ❖ All electronic
- ❖ Easy to make last minute changes
- ❖ The undo feature encourages experimentation
- ❖ More attractive; commanded more interest
- ❖ May include animations, sound, video
- ❖ Easy to catalog, store, and recall
- ❖ Great tool for making presenter-free interactive material (e.g. self-learning tutorials).

Q5. Write down HTML and JavaScript code for the following requirements

Declare an Array with the identifier SUBJECT having length 5.

Assign following values to the array elements:

- ❖ MIS,
- ❖ Java,
- ❖ Algorithms,
- ❖ Databases,
- ❖ C++ Show all values in reverse order

Long Questions:

(10 marks each)

Q1. How instant messaging works? Write the steps involved in this process.

The Instant Messaging services available allow us to maintain a list of people (contacts) that we interact with regularly. We can send instant messages to any of the contacts in our list as long as that contact is online.

Following steps are involved in IM working:

- ❖ User commences the IM client.
- ❖ IM client finds the IM server & logs in.
- ❖ It launches communication info (IP address, etc) to the IM server.
- ❖ IM server finds user's contacts & sends him/her the communication info.
- ❖ IM server also notifies the contacts that the user is online; sends his/her communication info to them.
- ❖ The user's & the contact's IM clients are ready to communicate directly (P2P).
- ❖ As new contact has come online, IM server informs them about the user being online & vice versa.
- ❖ Multiple, real-time chat are possible.
- ❖ When the user logs-off, his/her IM client informs the IM server.
- ❖ IM server wipes away the temporary file and informs the user's contacts about his/her 'offline' status.

Q2. Define the following terms.

Object:

Object is a named collection of properties (data, state) & methods (instructions, behavior).

Event Handler:

An event handler is a command which calls a function when an event happens, such as the user clicking a button.

Local Variable:

Declaring variables (using the var keyword) within a function makes them local. They are available only within the function and hold no meaning outside of it.

Scope of Variable:

Defining the space in which a variable is effective is known as defining the scope of a variable. A variable can be either local or global in scope.

Array:

Array is an indexed list of elements.

Q3. How virtual communities are formed? How these are different from other communities? Give examples

Virtual Communities are interest-based communities. Members with common interest share ideas, ask questions, post answers and make announcements through mailing-lists, news groups or message boards. This is how they are formed. These communities are definitely very different from traditional ones. There are generally no bars on membership based on gender, race or religion. However, they may lack the respect for the individual and civility that are the norm within conventional, geography-based communities.