



OBJECT ORIENTED PROGRAMMING WITH JAVA

Assignment10

TYPE OF QUESTION: MCQ

Number of questions: 15

Total mark: $15 \times 1 = 15$

QUESTION 1:

Which of these package contains classes and interfaces for networking?

- a. java.io
- b. java.util
- c. java.net
- d. javax.swing

Correct Answer: c

Detailed Solution:

The java.net packages includes many classes and interfaces for network programming in Java.

QUESTION 2:

Which of the following represents a computer uniquely?

- a. URL
- b. Port Number
- c. IP Address
- d. Mac Address

Correct Answer:c, d

Detailed Solution:

The IP address (a logical address) and Mac address (physical address) are to indicate a unique identification to a computer connected in a network. On the other hand, URL is used to indicate a specific location of a document/ program, for example, an HTML page. Next, a port number is used in TCP/IP and UDP networks, where a port is an endpoint to a logical connection and the way a client program specifies a specific server program on a computer in a network (that is to uniquely identify different applications). Also, a port number is used to identify what type of port it is.



QUESTION 3:

In the following URL, identify the protocol identifier?

`https://nptel.ac.in:8080/course.php`

- a. https
- b. nptel.ac.in
- c. //nptel.ac.in:80/course.php
- d. 8080

Correct Answer:a

Detailed Solution:

Here, https is the protocol for communication between two communication. The option (b) is the identity of the server, where course.php can be found. (c) is called resource name and 80 is the port number, that is, the address for a logical connection so that a client program can connect to the server program.

QUESTION 4:

Which of the following protocol follows connection less service?

- a. TCP
- b. TCP/IP
- c. UDP
- d. HTTP

Correct Answer:c

Detailed Solution:

TCP is connection-oriented, IP and UDP are connection-less, TCP/IP is thus connection-less protocol. HTTP is a stateless and not actually connection less. In other words, (a)-(c) are transport layer protocols, whereas HTTP is an application layer protocol.

QUESTION 5:

Which of the following statement is NOT true?

- a. TCP is a reliable but slow.
- b. UDP is not reliable but fast.



- c. File Transfer Protocol (FTP) is a standard Internet protocol for transmitting files between computers on the Internet over TCP/IP connections.
- d. In HTTP, all communication between two computers are encrypted.

Correct Answer: d

Detailed Solution:

HTTPS is the secure version of HTTP, where all communications between two computers are encrypted. The secure communication is not true in case with HTTP.

QUESTION 6:

Which of the following statement is TRUE?

- a. With stream sockets there is no need to establish any connection and data flows between the processes are as continuous streams.
- b. Stream sockets are said to provide a connection-less service and UDP protocol is used
- c. Datagram sockets are said to provide a connection-oriented service and TCP protocol is used
- d. With datagram sockets there is no need to establish any connection and data flows between the processes are as packets.

Correct Answer:d

Detailed Solution:

So far the stream sockets are concerned 1) a process establishes a connection to another process, 2) data flows between the processes are continuous streams, 3) provides a connection-oriented service and 4) TCP is used. On the other hand, with datagram sockets, with datagram sockets 1) individual packets of information are transmitted, 2) the transmission of packets follows a connection less service and 3) the UDP protocol is used.

QUESTION 7:

Which of the following method call is valid to obtain the server's hostname by invoking an applet?

- a. `getCodeBase().host()`
- b. `getCodeBase().getHost()`
- c. `getCodeBase().hostName()`
- d. `getCodeBase().getHostName()`



Correct Answer:b

Detailed Solution:

Option (b) is the correct syntax in this context.

QUESTION 8:

The server listens for a connection request from a client using which of the following statement?

- a. `Socket s = new Socket(ServerName, port);`
- b. `Socket s = serverSocket.accept();`
- c. `Socket s = serverSocket.getSocket();`
- d. `Socket s = new Socket(ServerName);`

Correct Answer:b

Detailed Solution:

Option (b) is the correct statement for listening to a client request.

QUESTION 9:

The client requests a connection to a server using which of the following statement?

- a. `Socket s = new Socket(ServerName, port);`
- b. `Socket s = serverSocket.accept();`
- c. `Socket s = serverSocket.getSocket();`
- d. `Socket s = new Socket(ServerName);`

Correct Answer: a

Detailed Solution:

Option (a) is the correct statement for connecting to a server.

QUESTION 10:

To connect to a server running on the same machine with the client, which of the following cannot be used for the hostname?

- a. "localhost"



- b. "127.0.0.1"
- c. InetAddress.getLocalHost(),
- d. "127.0.0.0".

Correct Answer:d

Detailed Solution:

Options (a)-(c) are the valid names of a server, when both client socket and server socket run in the same machine.

QUESTION 11:

In the socket programming, for an IP address, which can be used to find the host name and IP address of a client/ server?

- a. The ServerSocket class
- b. The Socket class
- c. The InetAddress class
- d. The Connection interface

Correct Answer: c

Detailed Solution:

An object of the InetAddress class is used to obtain the IP address and the host name of a client/ server computer connected in a network.

QUESTION 12:

To create an InputStream on a socket, say s, which of the following statement is necessary?

- a. InputStream in = new InputStream(s);
- b. InputStream in = s.getInputStream();
- c. InputStream in = s.obtainInputStream();
- d. InputStream in = s.getStream();

Correct Answer: b

Detailed Solution:

The getInputStream() for a socket is required to read from a socket.



QUESTION 13:

Which of the following protocols is/are for splitting and sending packets to an address across a network?

- a. TCP/IP
- b. FTP
- c. SMTP
- d. UDP

Correct Answer: a, d

Detailed Solution:

Here, TCP/IP and UDP use datagram streams.

QUESTION 14:

Consider the following piece of code.

```
import java.net.*;

class Networking{
    public static void main(String[] args) throws UnknownHostException{
        try{
            URL url=new URL("https://www.google.com");
            InetAddress obj1 =InetAddress.getByName("www.google.com");
            InetAddress obj2 =InetAddress.getByName(url.getHost());
            boolean x = obj1.equals(obj2);
            System.out.println(x);
        }
        catch(Exception e){}
    }
}
```

Which will be the output of the program?

- a. 0
- b. 1
- c. true
- d. false

Correct Answer: c

Detailed Solution:

Objects obj1 and obj2 contains the same host name and IP address, though they have been initialized by different methods.



QUESTION 15:

Consider the following piece of code.

```
import java.net.*;

class networking {
public static void main(String[] args) throws MalformedURLException {
try {
        URL obj = new URL("http://www.xyz.com/java");
System.out.print(obj.getPort());
        } catch (Exception e) { }
}
}
```

Which will be the output of the program?.

- a. 1
- b. 0
- c. -1
- d. garbage value

Correct Answer: c

Detailed Solution:

Since the URL does not have explicitly the port number, the default value, that is, -1 is printed.

*****END*****