(परीक्षार्थी द्वारा भरा जाए)

(**To be filled by the Candidate**)

First Periodical Test, January-April/May, 2022

परीक्षा का नाम (Name of Examination) - **BTech 6th Semester**

अनुक्रमांक अंकों में (In figures) - **1913541**

अनुक्रमांक(शब्दों में)(Roll No. in Words) - **Nineteen lakhs thirteen thousand five hundred and forty one**

नामांकन संख्या (Enrollment No.) - **2019/1291**

ई-मेलआई.डी. (E-mail ID.) - **btbti19113_aashita@banasthali.in**

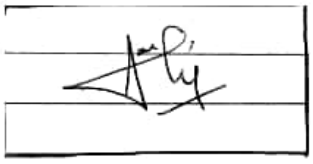
विषय (Subject) - **BTech (IT)**

प्रश्न पत्र कोड सहित (Paper with Code) – **Internet and Web Technology (IT302)**

परीक्षा दिवस और दिनांक (Day and Date of Examination) – **10 February 2021**

Total Number of Pages excluding this page - _____12_____

Question	1	2	3	4	5	6	7	8	9
Write NA for questions not attempted			NA		NA				



Signature of the Student

Q1 a) Assume ---------- www.common.com

i) Write HTTP ---------- gif format

Ans server with domain name → www.common.com

The request of the client will be -

* Use the GET method to get the document from the server

* The file type is Image

* Image should be either in jpeg or gif format.

* The request from the client-side will be,

Request

GET http://www.common.com/Image HTTP/1.1

Host : www.common.com
Accept : Image/gif
Accept : Image/jpeg

ii) Write HTTP ---------- current date.

Ans

The response from the server will be -

* The HTTP version is taken as 1.1

* Using code 200 to show success of request.

* Show the status as modified to specify that the condition has been met.

* Specify the size, server name and current date.

* The response from the server side will be -

Response

HTTP/1.1 200 OK Modified
Date : Thu, Feb 10 14:00:00 IST
Size : 1024
server : common.com (Apache)

(b) In actual - - - - - - - - - - - - Education.

Internet is basically a bunch of interconnected networks which may be mobile, laptops, computers, etc.. The Internet Service providers or the ISPs provide us the connections, from our devices to their ISP. Huge number of devices ~~are~~ from a particular region are connected to the nearest ISP and form a network. These ISPs are connected to those of other countries or regions and eventually, these connections of different Networks cause the Internet to exist. The world wide Web started as an Open Standard App that runs on the Internet. There is not

a single person or organization who owns the world wide web. Therefore, the device we own become part of the enormous inter-networked system. The Internet consists of lots of different bits and pieces, each of which has an owner.

Role of Internet in Education

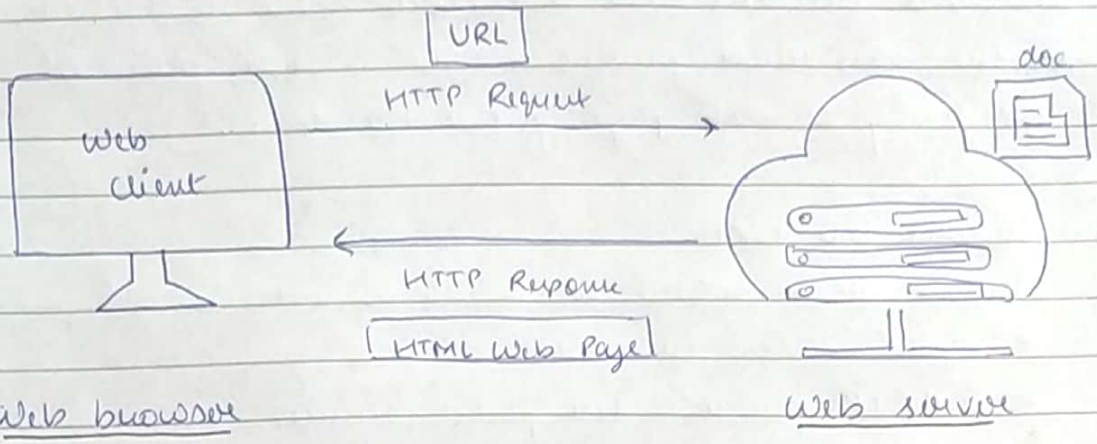
The Internet has introduced improvement in technology, communication and online entertainment, along with education. Internet in education has been incredibly useful as it facilitates both information and communication. The Internet has increased the accessibility of education at all levels and has turned out to be a giant repository of knowledge. Students can access free video lectures online and refer to encyclopedias and study material in multimedia formats; teachers can make their lessons interesting by incorporating online-based projects in their study plans; and educational institutions can reach out to a wider audience by offering quality online courses. Some areas of education where Internet plays an irreplaceable role is:

- Study and Research
- Student-Teacher and Peer Interaction
- Flexibility of Online learning
- Easy accessibility of Quality education
- Cost-effective and affordable education
- Allows faster update of Information
- Interactive Digital Media
- News streaming - educational

Ali

Q2 When a web - - - - - - - - - - - - - World Wide Web.

Ans



Each machine on the Internet must have an IP address, which is in the form of xxx.xxx.xxx.xxx where xxx must be a number from 0-255. The transmission of information is broken into packets and sent along the TCP/IP protocol stack, which has many layers from the hardware layer to the application layer.

Steps that take place in an interaction between a web browser and a web server are-

→ The web browser first needs to figure out IP address of site from URL using DNS. This is typically called as domain name resolution

→ TCP connection is established mostly at port 80

→ Once the TCP connection is established, the browser sends an HTTP request using GET method.

→ Web server responds with HTTP response, i.e the page requested.

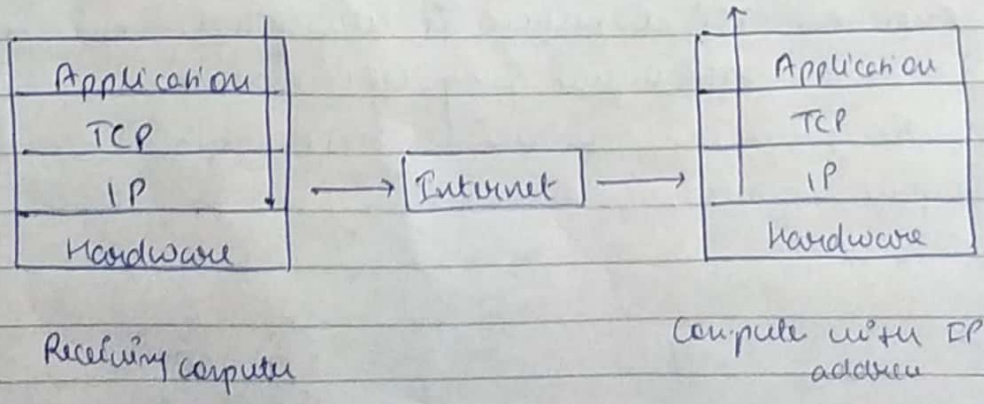
(PTO)

Ans

Thus, the HTTP or Hypertext transfer protocol standard describes how a browser makes a request to the web server program. It is the protocol for getting a web page from the server.

- Browser has URL
- Browser sends request to server named in url
  - request includes the path
  - TCP/IP provide the packet-service
- Server gets request
  - look up that path in it's resource
  - sends back response HTML
- Server has IP address
- Server stores data
- Server sends the data, which is then rendered by the browser into a window.

The server request message must be translated from alphabetic text into electronic signals, transmitted over the Internet, then translated back into alphabetic text. This protocol stack used on the Internet is referred to as TCP/IP protocol stack. This is required by the computer to communicate and is built on the computer's operating system.



Ali

The TCP/IP stack looks like this -

Protocol layer	Comments
• Application Protocols Layer	Protocol specific to applications such as www, e-mail, FTP, etc.
• Transmission control Protocol Layer	TCP directs packets to a specific application on a computer using a port number.
• Internet Protocol Layer	IP directs packets to a specific ~~application on a computer~~ computer using an ~~port number~~ IP address
• Hardware Layer	Converts binary packet data to network signals and back.

The process will be -

1. The message would start on top of the protocol stack on our computer and work its way downward.
2. If the message to be sent is long, each stack layer that the message passes through may break the message up into smaller chunks of data. This is because data sent over the Internet are sent in manageable chunks. These chunk of data are known as packets.
3. The packets would go through the Application Layer and continue to the TCP layer. Each packet is

assigned a port number. Many programs may be using the TCP/IP stack and sending messages.

4. After going through the ~~Application layer and continue to the~~ TCP layer, the packets proceed to the IP layer. This is where each packet receives its destination address.

5. Now the message packets are ready to be sent over the Internet, with port number and an IP address.

6. The hardware layer takes care of turning the packets containing the alphabetic text of the message into electronic signals and transmitting them.

7. On the other end, ISP has a direct connection to the Internet. The ISP's router examines the destination address in each packet and determines where to send it.

8. The packets reach the computer and starting at the bottom of the destination computer's TCP/IP stack and work upwards.

9. As the packets go upwards through the stack, all routing data that the sending computer's stack added is stripped from the packets.

10. When the data reaches the top of the stack, the packets have been re-assembled into their original form.

Ahi 1913541 (8)

Q4 Banarthali ..... www.banarthali.org

```
<!DOCTYPE html>
<html>
  <head>
    <title> Aashita Goyal (1913541) Periodical 1 Que 4 </title>
  </head>

  <body bgColor = "pink" >

  <u>
  <font type = "arial">
  <h1> FEEDBACK FORM- Banarthali Vidyapith </h1>
  </font>
  </u>


  < table border = 0 >
    <form method = "post" action = "www.banarthali.org">
      <tr>
        <td> <label> First Name </label> </td>
        <td>
          <input type = "text"
                 name = fname
                 placeholder = "Enter first name"
          />
        </td>
      </tr>

      <tr>
        <td> <label> Last Name </label> </td>
```

Ahi

```
<td>
  <input type = "text"
         name = lname
         placeholder = "Enter last name"
  />
</td>
</tr>

<tr>
  <td><label> E-mail </label></td>
  <td>
    <input type = "text"
           name = mailId
           placeholder = "Enter e-mail" :
    />
  </td>
</tr>


<tr>
  <td>
    <label> What did you like most about the
            Ravatbhai Vidyapith campus ? </label>
  </td>
  </td>
    <input type = "checkbox"
           name = "like"
           value = "Campus" />
    <label> Campus </label>

    <input type = "checkbox"
           name = "like"
```

```
value = "students" />
<label> Students </label>

<input type = "checkbox"
       name = "like"
       value = "location" />
<label> Location </label>

<input type = "checkbox"
       name = "like"
       value = "atmosphere" />
<label> Atmosphere </label>

<input type = "checkbox"
       name = "like"
       value = "hostelRoom" />
<label> Hostel Room </label>

<input type = "checkbox"
       name = "~~sport~~ like"
       value = "sports" />
<label> Sports </label>
</td>
</tr>

<tr>
  <td>
    <label> How did you become interested
            in Banasthali Vidyapith ?
    </label>
  </td>
```

Ali

```
<td>
  <input type = "radio"
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         value = "friends" />
  <label> Friends </label>

  <input type = "radio"
         name = "Interest"
         value = "television" />
  <label> Television </label>

  <input type = "radio"
         name = "Interest"
         value = "Internet" />
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  <input type = "radio"
         name = "Interest"
         value = "others" />
  <label> others </label>
</td>
</tr>

<tr>
  <td> <label> Message </label> </td>

  <td>
    <textarea name = "msg"
              value = "message"
              placeholder = "Additional comments if any"
              rows = 55
              cols = 50 >
```

Ali

```
</textarea>
</td>
</tr>

<tr>
  <td>
    <input type = "submit"
           name = "submit"
           value = "Submit" />

    <input type = "reset"
           name = "reset"
           value = "reset" />

  </td>
</tr>
</form>
</table>
</body>
</html>
```

Ali