9th Class		
Computer Science	Model Paper 6	Paper: I
Time: 1.45 Hours	(Subjective Type)	Marks: 40

(Part-I)

2. Write short answers to any FOUR (4) questions: (8)

(i) What is the meaning of 5Ws in the problem solving?

Ans We can analyse the problem by identifying 5Ws in the problem statement as given below:

1. What
2. Who
3. Why
4. When
5. Where

(ii) What is meant by processing in the making of flowchart?

Ans A flowchart also contains processing steps. The processing steps are used for performing calculations and storing the results of calculations. These may include increasing/decreasing a value, adding/dividing two values, etc.

(iii) What is the use of 'if else' in the formulation of an algorithm?

Ans It is used to check the condition. For example, the condition like *if* (a<b). A condition is evaluated as true or false. In case the condition is true, then the statements related with *if* part are executed otherwise the statements of *else* part are executed. Usage: Suppose a=5 and b=7, *if* (a<5) Set c to 10 else Set c to 20. Writing else part is optional.

(iv) Write disadvantages of an algorithm.

Ans Following are the disadvantages of an algorithm:

1. Modifying an existing algorithm is not very easy every time.
2. Showing the flow from one step to the other is not very easy.
3. Usage of goto makes it difficult to identify errors.

(v) What are the flowcharts actually?

Ans Flowcharts consist of symbols used for graphical presentation of an algorithm.

(vi) Digital computers store data in binary form. What is the meaning of this statement?

Ans Digital computers store data in binary form. It means that whether it is a text, picture, movie or some application, it is stored in computer's memory in the form of 0s and 1s.

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3. Write short answers to any FOUR (4) questions: (8)

(i) Draw truth table for OR operator.

Ans

P	Q	P AND Q
T	T	T
T	F	T
F	T	T
F	F	F

(ii) What is temporary storage device?

Ans A device which holds the data as long as it has power supply connected to it and loses the memory when there is no power supply connected to it is called Volatile Memory or temporary memory.

(iii) Define star topology.

Ans A star topology connects all devices using point-to-point connections via cables to a central point. The central point is known as a Hub or Switch. The central device controls all the

traffic. Therefore, devices can transfer data to each other only through the central point.

(iv) What is data communication?

Ans Data communication refers to exchange of messages between sending and receiving devices through some communication medium. These messages are actually the information which can be presented in many forms like text, numbers, images, audio and video.

(v) Describe about transmission medium.

Ans Medium is the physical path that connects a sender and a receiver. It is used to transmit data. The medium can be a copper wire, a fibre optic cable, microwaves, etc. It is also called a communication channel.

(vi) What does SMTP do?

Ans Simple Mail Transfer Protocol is a standard protocol to transmit emails.

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4. Write short answers to any FOUR (4) questions: (8)

(i) Define phishing.

Ans Sometimes, some malicious user disguises himself as our friend and tries to get some confidential information. This is called phishing.

(ii) What is sabotage in computer system?

Ans Sabotage is a serious attack on a computer system. Some malicious user can attack the system while sitting remotely. One can send virus with some free software. A virus is a computer program written with negative intentions. It can change/destroy an information or sabotage a precious data.

(iii) Define hacking.

Ans Another cyber crime is the practice of hacking, illegally accessing someone else's computer.

(iv) **Define HTML.**

Ans HTML is Hypertext Markup Language and its purpose is to create a webpage.

(v) **What is text formatting?**

Ans Text formatting refers to the attributes of text other than the actual text itself.

(vi) **What do we use to move from one part of the same page to the other page?**

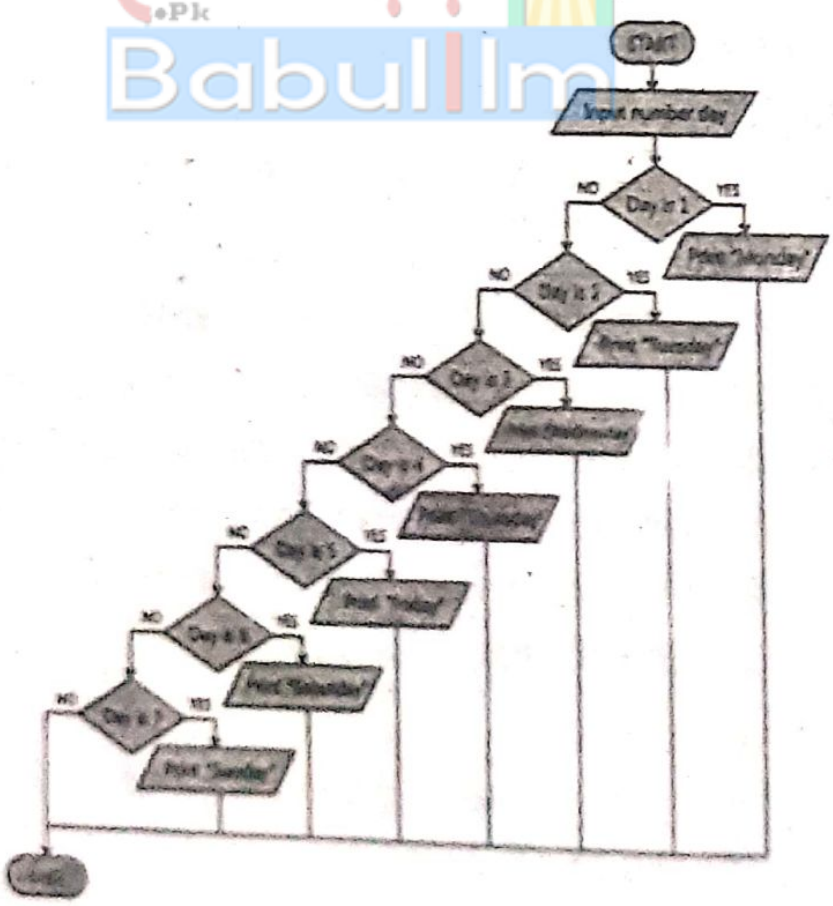
Ans To move from one part of the same page to the other page, we use anchor.

(Part-II)

NOTE: Attempt any TWO (2) questions.

Q.5. Draw a flowchart to determine name of a week day from a given number where weekdays are assumed from Monday to Sunday and their respective numbers from 1 to 7. **(8)**

Ans



Q.6. Describe 'Routing' in details. (8)

Ans Routing:

Understand a Router:

A router is a networking device that forwards data packets from one network to another. As the Internet is called network of networks, so a router also directs the traffic on the Internet. A router analyses the destination IP address of an incoming data packet, determines the best route to forward the packet, and then sends it accordingly. A router is usually placed at the meeting point of two or more networks.

Ro g in the Internet:

We get the Internet service from some Internet Service Provider (ISP). When we send a request from a device, it reaches an ISP where router is installed.

Fig. Usage of router.

The router forwards our request according to header of our message. For communication over the Internet, there may be hundreds of networks between the source and the destination. Hundreds of routers might forward a single packet as it moves from one network to the next on the way to its final destination. Figure shows the usage of a router in the Internet.

Routing Process:

Routing is a process of taking data from one device and sending it to another device on a different network. Every data packet has two addresses; destination address and source address. Destination address is used to deliver the data packet

at destination. Source address is used to identify the sender device.

Consider the following example of IP routing:

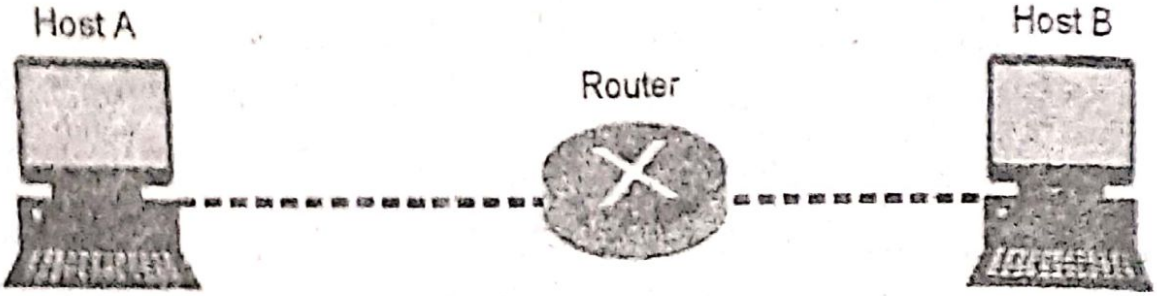


Fig. Message Routing between Source and Destination.

Host A wants to communicate with host B, but host B is on another network. Host A is configured to send all packets destined for remote networks to the router. The router receives the packets, checks the routing table to see if it has an entry for the destination address. A routing table is used by routers to determine the path to the destination network. If the entry exists for the destination address, the router forwards the packet out of the appropriate interface port. If the router doesn't find the entry, it discards the packet.

Q.7. Describe in detail text formatting in HTML. (8)

Ans **Text Formatting:**

Content Formatting in HTML:

HTML defines special elements for defining text with a special meaning. Here is the description about performing various content formatting tasks in HTML.

Creating a Paragraph:

The tag marks starting of a paragraph, and tag marks closing of the paragraph. The text inside   tags is actual contents of the paragraph.

Insert line breaks:

The
 element inserts a line break without starting a new paragraph. For example, This is
 a paragraph displays text in two lines, as following.

This is

a paragraph

Insert spaces:

If you insert multiple spaces in a text, HTML only considers one space and ignores the others. For example, I study in 9th class. generates the following output:

I study in 9th class.

You can see that HTML has ignored the multiple spaces inside the text. In order to insert spaces, you need to write " " where the space is needed. For example, I study   in 9th class. generates the following output:

I study in 9th class.

In order to add two spaces, you can use " ".

Add headings/sub-headings:

Headings are defined with the <h1> to <h6> tags. <h1> defines the most important heading. <h6> defines the least important heading. For example, <h1>Heading 1</h1> <h2> Heading 2 </h2> <h3> Heading 3 </h3> <h4> Heading 4 </h4> <h5> Heading 5 </h5> <h6> Heading 6 </h6> produces the output.