

Ans 1

$$a) (1100000)_2 - (1011111)_2$$

$$\begin{array}{r} 1100000 \\ (-) 1011111 \\ \hline 100000 \\ 0000001 \end{array}$$

Ans 0000001 = 1

$$b) (10111)_2 \div (101)$$

$$\begin{array}{r} 101 \overline{) 1011111} \\ \underline{101} \\ 001000 \\ \underline{101} \\ 011 \end{array}$$

Ans 100

Remainder : 011

$$c) (1100)_2 \times (1101)_2$$

$$\begin{array}{r} 1100 \\ \times 1101 \\ \hline 1100 \\ 0000 \\ 1100 \\ 1100 \\ \hline 01001100 \end{array}$$

Ans 01001101

8.2

a) Pull technology refers to clients that make ~~some~~ requests to server. One example is requesting information, and downloading web pages via a web browser.

Push technology refers to servers that initiate information updates to clients. ~~For this example, getting mail is also an~~

Example, some online auction websites which push updates bid price information in real time.

b) Cloud Computing is the use of hardware and software to deliver a service over a network. With cloud computing users can access files and use applications from any device that can access the Internet. An example of a cloud computing provider is Google's Gmail.

c) Impact printers involves the image produced with the help of electromechanical impact device. The printing is done by ~~hammer~~ hammering a set of metal pin on character set. Example, ~~Dot jet~~ Dot matrix or line printers.

Non-impact printers involves no electromechanical device where it prints by depositing ink in any form. And, it works silently. Example, inkjet or laser printers.

The diagram illustrates the flow of data through various computer components. On the right, a document icon labeled 'Text Content (english passage)' has an arrow pointing to a box labeled 'HDD/SSD'. From the 'HDD/SSD' box, an arrow points to a box labeled 'RAM'. From 'RAM', an arrow points to a box labeled 'Cache'. From 'Cache', an arrow points to a box labeled 'Register'. From 'Register', an arrow points to a box labeled 'CPU'. From the 'CPU', an arrow points back to the 'Register'. Additionally, there is a direct arrow from the 'HDD/SSD' box to the 'CPU'. Finally, an arrow points from the 'RAM' box to a box labeled 'Processed Data (Bangla Passage)' at the bottom right.

Ans: 4

The purpose of health IT is to provide better care for patients and help achieve health equity. Health IT supports recording of patient data to improve healthcare delivery and allow for analysis of this information for both healthcare practitioners and ministry of health/government agencies. Health IT improves the quality of healthcare delivery, increase patient safety, decrease medical errors, and strengthens the interaction between patients and healthcare providers. Computers are playing an important role in the information age. They deeply impact in the area of education to improve the quality of learning as well as teaching. Various resources and technologies have been used to improve the quality of the education system.