

MID TERM EXAMINATION
Spring 2020

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| Course No: | CSE 101 (Sec: 4) |
| Course Title: | Introduction to Computer Studies |

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| Date of examination: | 23.03.2020 |
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| Obtained | 12 |
| Total | 25 |



**Signature of the
Examiner**

QUESTION 1

Perform the following binary operations:

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

Answer: 1

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

Answer: 100 R: 011

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

Answer: $(010011100)_2$

QUESTION 2

Write Short notes on the following topics. Also provide at least one example for each of them:

a) Egocentric and Exocentric environments:

Egocentric Environment: The world we view with our own eyes is an egocentric environment. That is whatever we see with our own two eyes is an egocentric environment. For example: You go out and look at a dog; that is your egocentric view.

Exocentric Environment: Looking in at one from the outside is an exocentric environment. For example: When we look at ourselves in the mirror. We are looking at an exocentric environment

b) Quick Response (QR) Code: A machine-readable code consisting of black and white squares mostly used for storing URLs or other information. Which is readable by camera of a smartphone.

c) Ergonomics: Ergonomics is the practice of setting up the computer and the workspace to fit the user and their work needs to minimize physical stress.

QUESTION 3

Identify and categorized various entities of the following Computer Based Systems (CBS) into software, hardware & user.

a) Facebook

b) Retail Software

QUESTION 4

Write the impacts and applications of computers in education and healthcare.

Computers play an important role in every field. Consequently, computers are used in education as well as healthcare. In this situation of the world, computers are helping us in education through online classes. Computers have given us enough resources for learning and made education more flexible and easier for us. Students can now gain knowledge not only from books but from online resources as well. Teachers use computers to keep track of attendance, record grades or calculate averages. Students often store class lectures or notes in their computers for backup safety. Computers are helpful in healthcare as well. Hospitals use computers to keep records of patient information to create an accurate diagnosis. They keep their X-ray and ultrasonography reports stored in their computers which make it easier for them to retrieve later. Computers are less time consuming and provide accuracy everytime which reduces the risk of errors in patient data.