



Sri Lanka Institute of Information Technology

B.Sc. Degree
in
Information Technology

Mid Examination
Year 1, Semester 1 (2015)
June Intake

Fundamentals of Information Technology (N100)

Duration: 1 Hour

Instruction to Candidates:

- ◆ This is a closed book examination.
- ◆ This paper contains 3 questions on 7 pages without the cover page.
- ◆ Answer all questions on the space provided.
- ◆ Read all questions before answering.
- ◆ The total marks obtainable for this examination is 30.
- ◆ Use of Calculators are **NOT** permitted.

Question 1

(12 marks)

a) What are the components of a Computer System?


(1marks)

b) Explain **four** characteristics of a computer system.

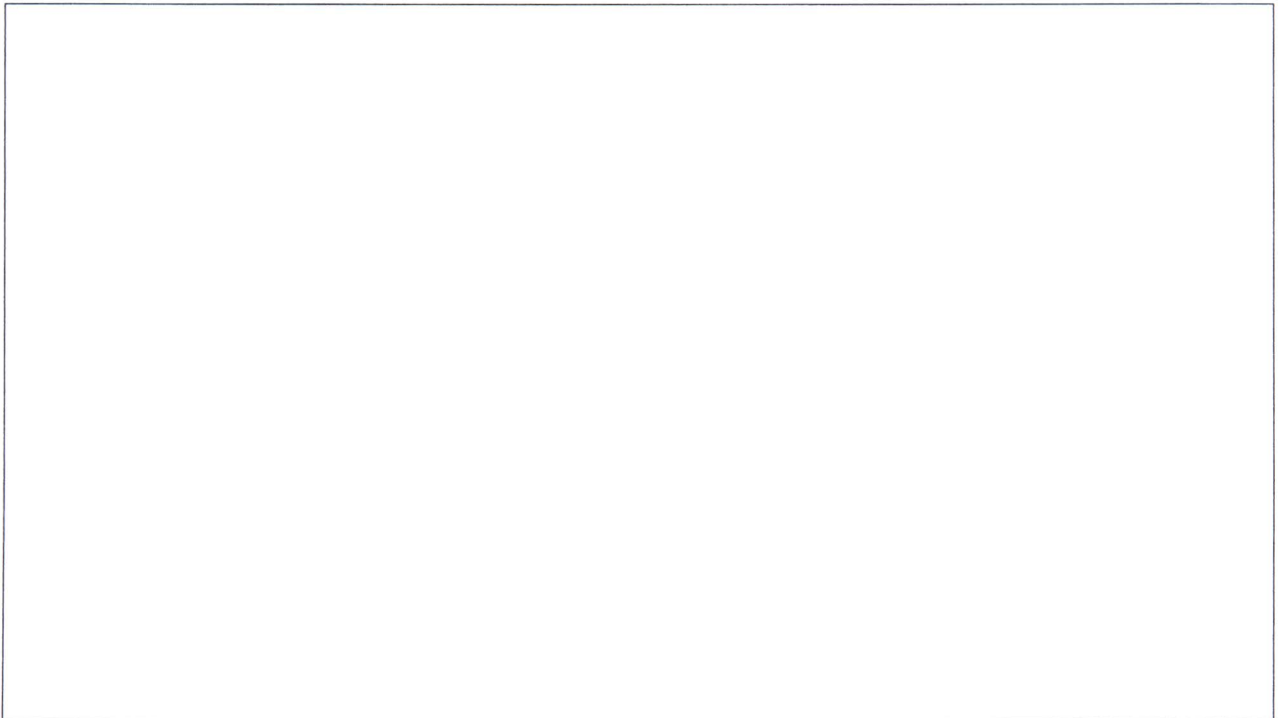
(4marks)

c) Explain *Von Neumann Bottleneck*. Name **two** solutions to for Von Neumann Bottleneck.

(3marks)



d) Compare *Primary storage* and *Secondary storage*. Provide **one** example for each (4marks)



IT No:

Question 2

(8 marks)

a) Briefly explain the use of *System Software* in a computer system.

(2marks)

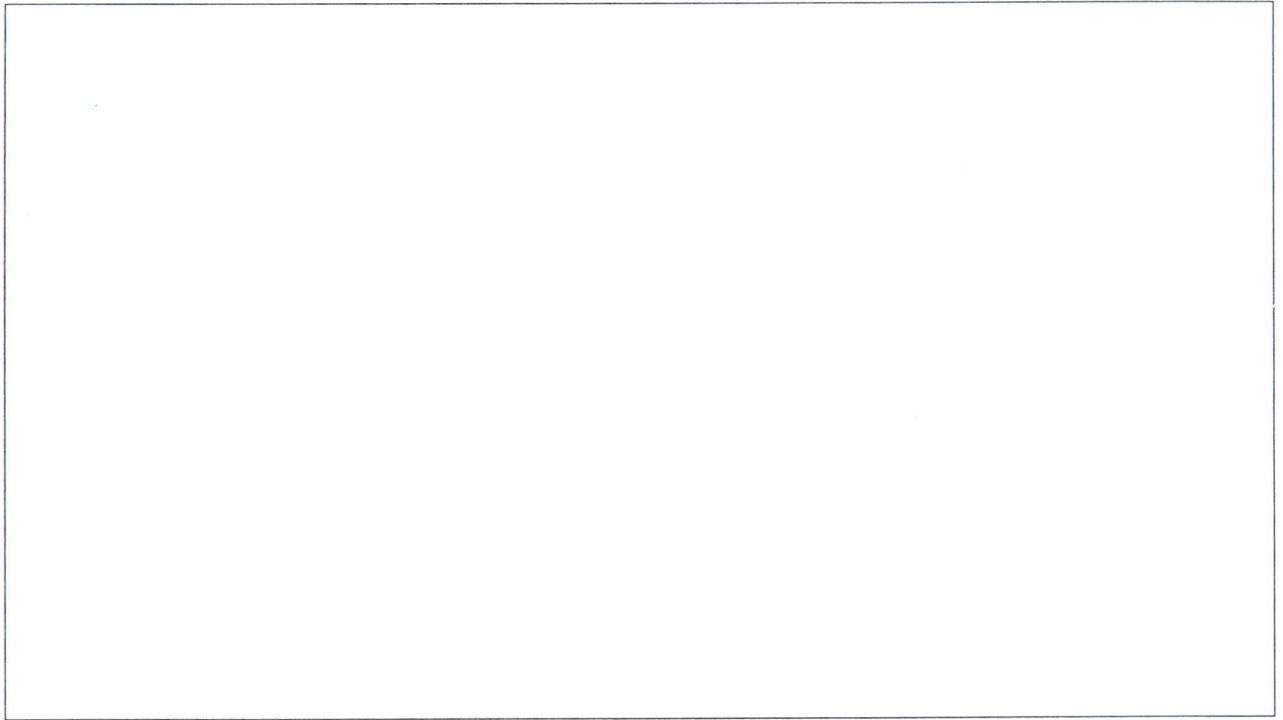
b) Briefly explain the following.

- Dump
- UNICODE
- Central Processing Unit

(3marks)

c) Compare and contrast *Off-the-shelf packages* and *In-house packages*.

(3marks)

A large, empty rectangular box with a thin black border, intended for the student to write their comparison and contrast of off-the-shelf and in-house packages. It occupies the majority of the page below the question.

IT No:

Question 3

(10 marks)

Convert the following numbers into given number bases

a) Conversion from **Decimal to Binary**

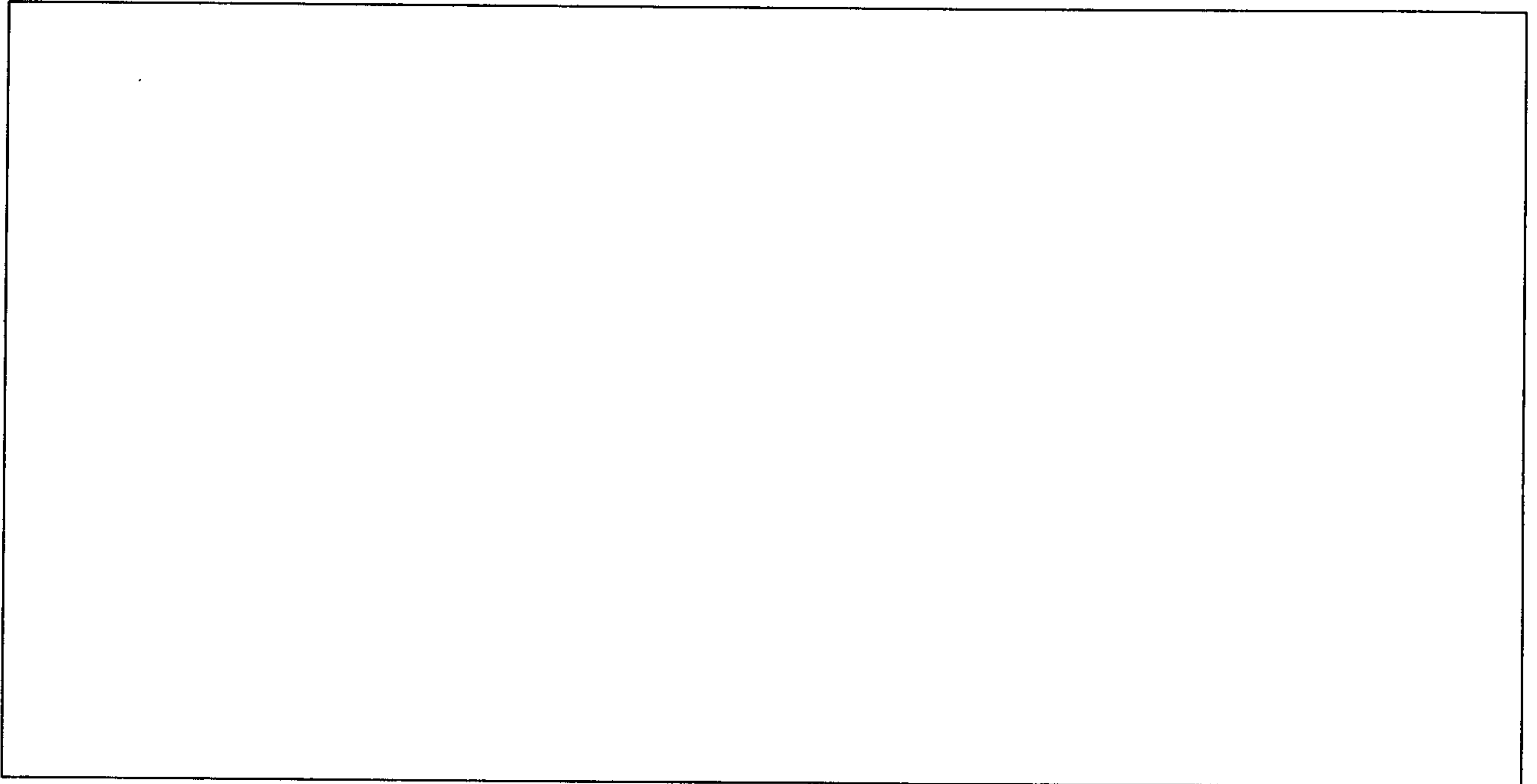
- 1689_{10}

(2marks)

b) Conversion from **Binary to Decimal**

- 1001110011_2

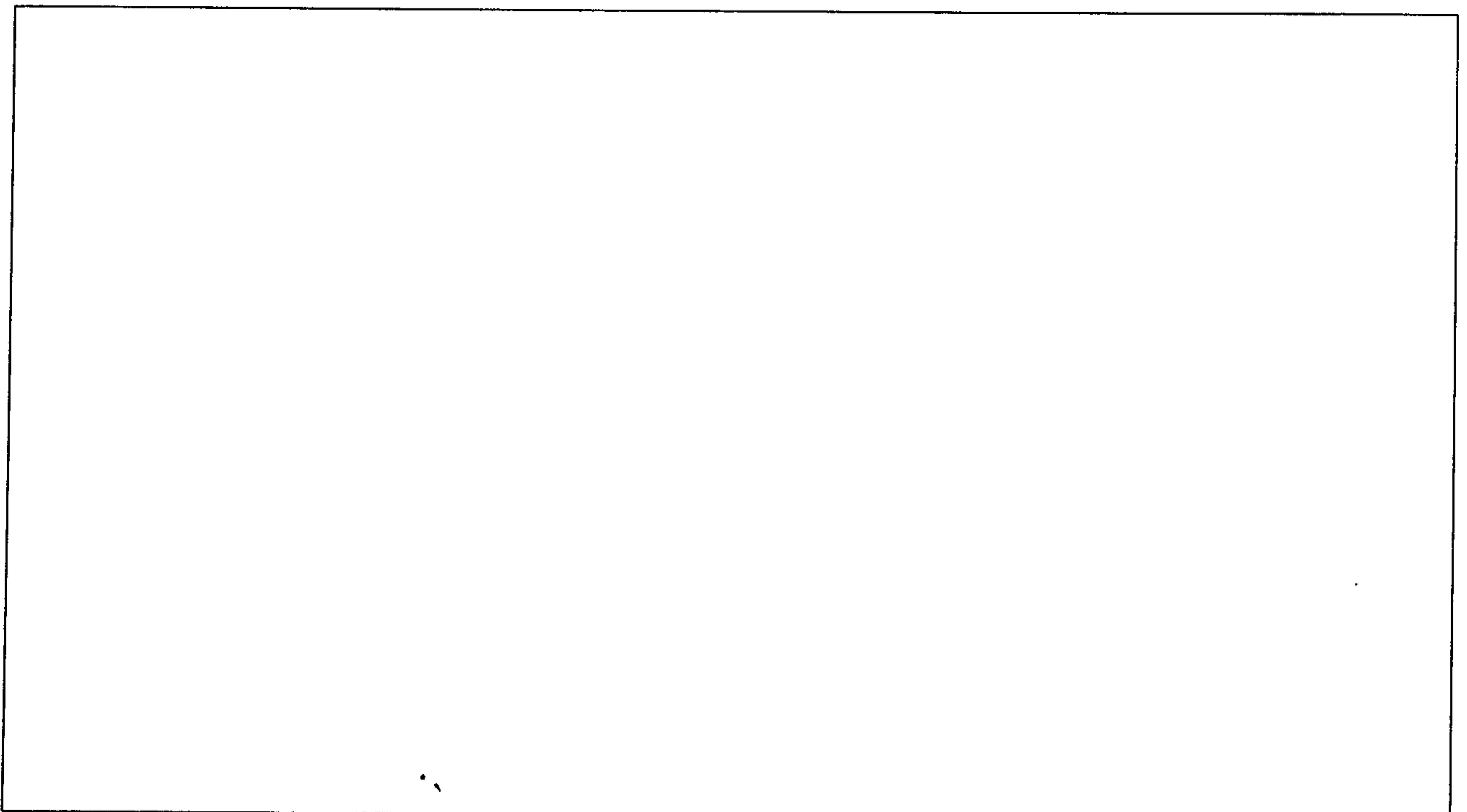
(2marks)



c) Conversion from **Decimal to Octal**

- 98245_{10}

(2marks)



IT No:

d) Conversion from **Decimal to Hexadecimal**

- 57868_{10}

(2marks)

e) Conversion from **Octal to Decimal**

- 7204_8

(2marks)

End of the Question Paper