NAME: TRYPHONE RASHID KASSIM
REG NO: NIT/BIT/ 2020/ 1481

National Institute of Transport
Department of Computing and Communication Technology

Module Code: ITU 08101
Module Name: MULTIMEDIA SYSTEMS
TEST TWO

QUESTION ONE

(a) Text is one of the easiest of all multimedia elements to use. List the Factors affecting the legibility of text during developing multimedia project
[2 Marks]

    i)   Size and style
    ii)   background and foreground colours
    iii) Leading

(b) Give any four Types of Digital Audio File Formats for the multimedia projects
[2 Marks]

    i)   MP3
    ii)   MP4
    iii) MIDI
    iv)   AU

QUESTION TWO

(a) Most films start with titles and end with credits. The text is shown over either plain background or colored background. Typography looks different in different formats such as in film subtitles, on websites, posters, essays, etc. What does a designer have to keep in mind to include a text in a multimedia project?
[2 Marks]

A designer should understand the font style and size that can be used in order to make easy shown of the text either in the titles and others and also the designer should understand the colours

Module Code: ITU 08101
Module Name: MULTIMEDIA SYSTEMS
TEST TWO

that used should be easy shown.

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(b) Explain any two differences that exist between MIDI and Digital Audio

[2 Marks]

MIDI It needs much knowledge in understanding while Digital Audio It does not needs much knowledge.

Digital Audio needs small storage while MIDI needs large storage capacity.

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QUESTION THREE

Discuss the platforms in which Multimedia elements need to run

[2 Marks]

i) Youtube, Elements of multimedia such as video, sound, games and others run in the youtube to see differents video.

ii) Website, It can be used in the differents web pages that to show differents animation and others

iii) Instagram It ca be used on Instagram on differents issues

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FULL NAME: TRYPHONE RASHID KASSIM   MODULE NAME: SOFTWARE ENGINEERING

REG NO.: NIT|BIT|2020 | 1481   MODULE CODE: ITT 08102 TIME: ONE HR

Question One

a) Briefly describe the following terms   (@1 marks)

  i) System Requirements Specification

  Is the document that used to create an defect project, software with a specific steps.

  ii) Software engineering

  Is a scientific process of an collection of integrated systems that used to design, create a software in order to reduce the complexity of works and handling big projects.

  iii) Software crisis

  These are the problems or that happen after create a software such as Time delay and others which cause a low Performance of a software.

  iv) CASE tool

  Those are tools that used to create a different softwares.

b) Explain the difference between validation and verification   (@1mark)

  Validation Means something True not used at any where while

  Verification Means to make come up with the evidence. example fingerprint

c) What are the four professional responsibility of professional software engineer (@0.5mark)

  i) To create a software that satisfy the users or customers.
  ii) To create a software that have feasibility and scalability.
  iii) To reduce the complexity of works in the society.
  iv) To come up with the new ideas that reduce problems in the society.

Question two

CamScanner

a) Seats can be reserved by customers on the web site of the bus company. The customer has the option to directly pay for the seat through the website. In that case, the seat cannot be cancelled (neither by the customer nor by the bus company). If the customer has not paid for the seat, the bus company can cancel the seat if the customer does not show up one hour before the trip. When the reservation is cancelled, the seat will become free and can be sold to another customer. Both the customer and the company staff must authenticate themselves for performing operations with the system.

i) List and justify three non-functional requirements that could be important for the above system. (@0.5 marks)
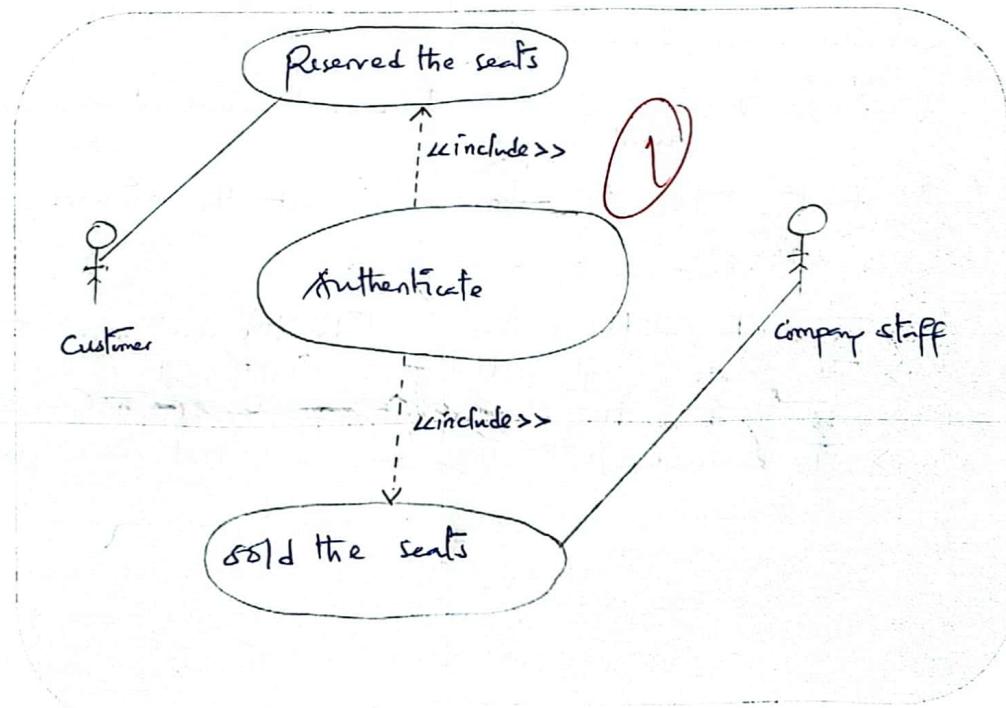
The bus company can cancel the seat if the customer does not show up one hour

i> Seats can be reserved by customers on the website of the bus company

ii> Customer has the option to directly pay for the seat through website.

iii> Seats can not be cancelled neither by the customer nor by the bus company.

ii) Mention stakeholders who are not an actor in this use case diagram (@0.5 marks)

1) Seats

ii) Bus company

iii) Draw a use case diagram for describing the functional requirements of the above system (4 marks)

THE NATIONAL INSTITUTE OF TRANSPORT

Department of Computing and Communication Technology

Program: Higher Diploma (NTA Level 8) in Information Technology

Academic year 2022/2023 – Test One

MODULE CODE	: ITU 08106
MODULE NAME	: Distributed Systems
EXAMINATION DATE	: 19th December 2022
TIME ALLOWED	: 1.00 Hour

GENERAL INSTRUCTIONS:

1. Attempt ALL questions in both sections.
2. Possession of Mobile phones, Smart Watches and any other un-authorized materials in the examination room is strictly prohibited
3. You are reminded to adhere to ALL Institute's Examination Rules and Regulations

Qn. 1
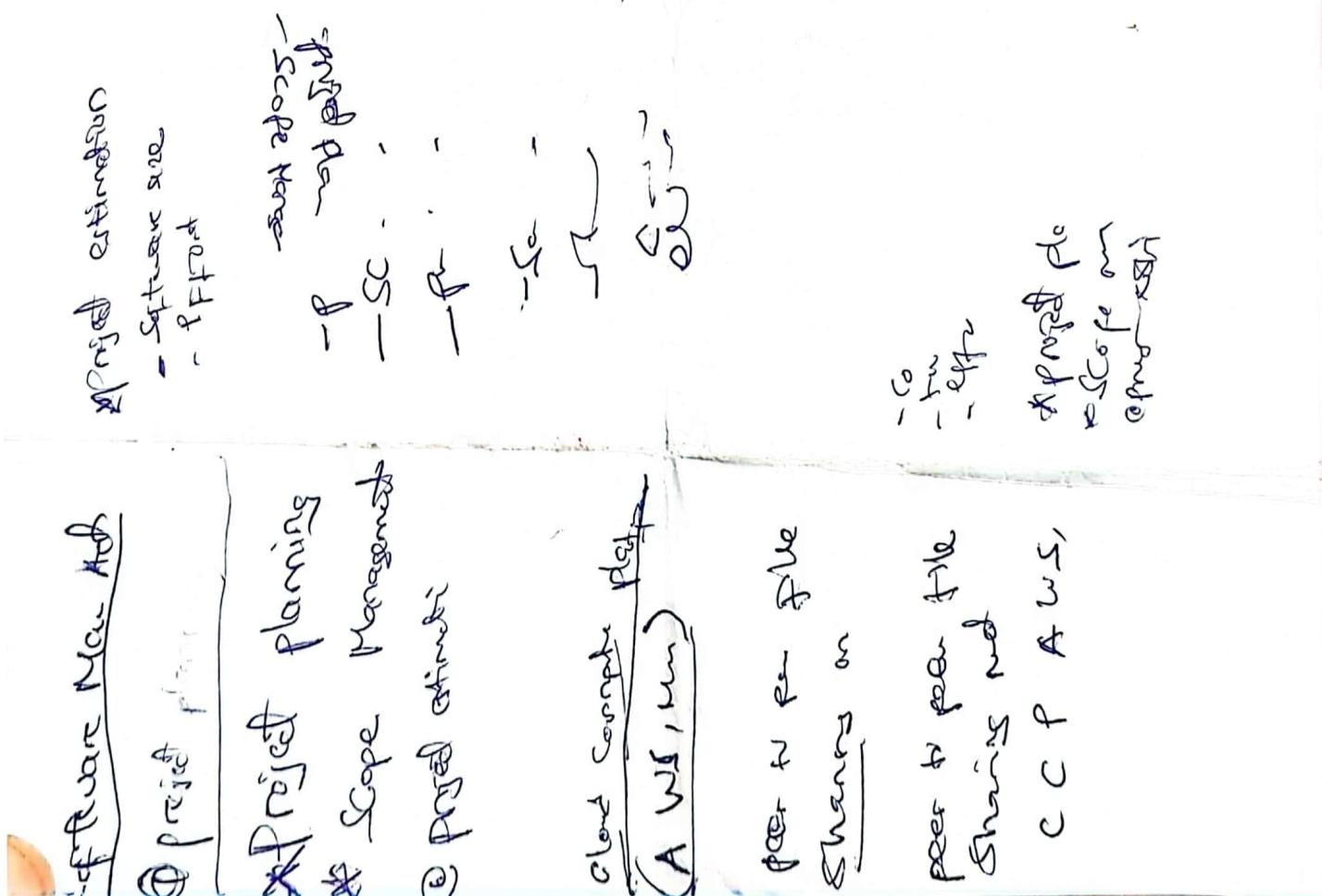
a) What is a Distributed System ? and mention one examples of a distributed systems in Information Technology(IT) systems **(3 Marks)**

b) State three (3) differences between a centralized system and a distributed system **(3 Mark)**

Qn. 2

a) Write down some short notes on the common characteristics below ,which are used to assess distributed systems:

    i.   Heterogeneity **(2 Marks)**

    ii.   Openness **(2 Marks)**

    iii.   Security **(2 Marks)**

    iv.   Scalability **(2 Marks)**

    v.   Failure Handling **(2 Marks)**

Qn. 3

a) With the help of a clear diagram, explain how the operation of a Local Area Network(LAN) can be refereed as a distributed system **(4 Marks)**

NATIONAL INSTITUTE OF TRANSPORT

COMPUTING AND COMMUNICATION TECHNOLOGY DEPARTMENT (CCT)

BACHELOR DEGREE IN INFORMATION TECHNOLOGY (BIT) AND BACHELOR

DEGREE IN COMPUTER SCIENCE (BCS)

(NTA LEVEL 8)

TEST ONE FIRST SEMESTER – 2022/2023

MODULE NAME: MOBILE APPLICATION DEVELOPMENT **Total Marks:** 10.00%
MODULE CODE: ITU 08104 **TIME:** 1.00 HOURS

INSTRUCTIONS:

1) Answer all questions.

QUESTION ONE

What the difference between Stateless Widget and Stateful Widget ? **[2 marks]**
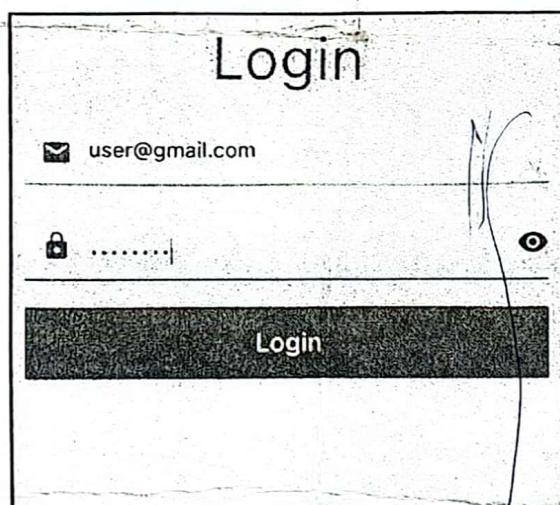
QUESTION TWO
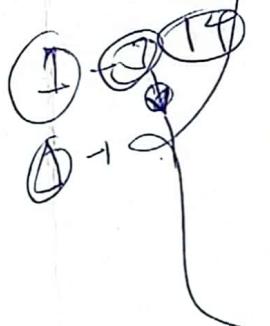
Write a program to create a login interface as shown in the figure below which you can write email address and password for login process, also you can be able to show or hide a password.

[8 marks]

NATIONAL INSTITUTE OF TRANSPORT

Module Name: Network Administration and Security   **Module Code:** ITU 08103

Duration: 1 Hour   **Total Marks:** 33 marks

Instructions:

Attempt All the Questions

1. Give a brief description on the following   **(@ 2marks)**
   a. Layer 3 switch
   b. End-User Device Security
   c. LAN

2. Switch is an intelligent device which makes use of MAC Table in order to know where to forward the frames from one PC to another within a LAN. Briefly describe three information found in the table.   **(9 marks)**

3. A proper design of LAN for an enterprise makes use of VLAN in order to isolate users based on the nature of their activities. With an example on each point, explain any three advantages obtained from such a design.   **(9 marks)**

4. In LAN design, devices are put in layers which are access, distribution and core layer in order to provide efficiency and scalability. In details, explain any three features for a switch found in Access Layer.   **(9 marks)**

All the Best

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(NTA LEVEL 8)
TEST TWO FIRST SEMESTER – 2022/2023

MODULE NAME: MOBILE APPLICATION DEVELOPMENT **Total Marks:** 10.00%
MODULE CODE: ITU 08104 **TIME:** 1.00 HOURS

INSTRUCTIONS:
1) Answer all questions.

QUESTION ONE

What *padding* property does in mobile application development? *[2 marks]*

QUESTION TWO

Write a program to add a drawer which is populated with items in mobile application interface by using the following steps

1. Create a Scaffold.
2. Add a drawer.
3. Populate the drawer with items.
4. Close the drawer programmatically. *[8 marks]*