National University of Computer and Emerging Sciences, Lahore Campus

Course:	PF (Lab)	Course Code:	EE 2003
Program:	BS (Computer Science)	Semester:	Fall 2021
Duration:	2 Hours	Total Marks:	40
Paper Date:	17th Nov, 2021	Weight	20%
Section:	K	Page(s):	2
Exam:	Midterm Exam	Reg. No	

Important Instructions (Please read them before attempting the exam):

- Submit **ONLY code File** in this format (Make the File **named** with your **Roll Number** e.g., 21L-1234
- **Plagiarism** will result in **F grade** in lab.
- **Cell phones, USBs** or any other items is **not allowed.**
- Submission path will be announced soon.
- Submit your files on **Google Classroom.**

Question 1:

Working as an IT support professional at a Local Bank, you are asked to devise a program that helps granti Home Loans to customers based on the the following factors:

- Criminal Record
- Salary Range
- Employment Duration
- Age Limit

Here is the Bank's loan-policy:

1. No Loan will be granted to Customers with any criminal record.
2. Grant loans to Customers who have income over 100k.
3. For customers having income from 70k to 100k:
    - Grant loans to customers who have more than 1 year of employment.

1. For customers having income from 50k to 70k:

a. Grant loans only to customers who have more than 3 years of employment.

2. For customers having income from 20k to 50k:

a. Grant loans to customers who have more than 5 years of employment.

- The customer age must not exceed 30 years.

2. No loans for customers under 20k of income.

Note: solve this using switch.

Question 2:

Implement a program that displays calendar of a 30-day month:
For every calendar-entry, following information is required:

- Date of Year
- Week of Month
- Day of Week

Assume that the Week Starts from Sunday and Ends on Saturday.

For Example:

Starting of month is Monday, November 1:
[Day-2 | Week-1 | November-1]
Month ends on Tuesday, November 30:
[Day-3 | Week-5 | November-30]

Question 3:

Implement a function to display each of the following pattern:

```
* * * * *  *              *        *
* * * * *  * *            * *      * * *
* * * * *  * * *          * * *    * * * * *
* * * * *  * * * *        * * * *  * * * * * * *
* * * * *  * * * * *      * * * * *
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