Distance learning
Online Examination guide.

Summary

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Authors

engr.Fares Younis Sh,

IT manager

engr.Rehab alshareef

Head of Study and exams office at the medicine faculty

Prof. Adel I.Ahmaida Al-tawaty

University Vice President for Science Affairs

Preface

- ● Definition:

  The aim of this guide is to provide a practical technical methodology to achieve safe and well secured online examination following simple techniques combined all together to resolve global and domestic challenges related to the technical aspects in the processes of online examination at the libyan International medical university university.

  The proposed solution have been tested in several faculties at the university to ensure its practicality. The solution consists of several systems integrated.

- ● Components:

  the the solution is based over 3 main elements

  - ○ Moodle Examination Module:

    is an activity module for Moodle. It allows the teacher to build quizzes with multiple choice questions based on the Quiz module. Main purpose of the Exam module is to improve the performance of quizzes and to reduce database overhead, so that a large number of users can attempt quizzes simultaneously. Ref: https://moodle.org/plugins/mod_exam

  - ○ Safe Exam Browser:

    is a web browser environment to carry out e-assessments safely. The software turns any computer temporarily into a secure workstation. It controls access to resources like system functions, other websites and applications and prevents unauthorized resources being used during an exam.
    Ref: https://safeexambrowser.org/about_overview_en.html

  - ○ Google meet: Real-time meetings and a video communication service developed by Google, a meeting session held by the examiner or the exam supervisor.

Mechanisme:

- ● Overview

  The examination is made by moodle exam modules with all preferences and configuration that are required, using Safe Exam Browser software to generate special key file for each exam the Safe Exam Browser runs on a local computer and it is connected via the internet to moodle, the main objective of Safe Exam Browser is to limit the usage of partcpent's computer so that only the exam window is allowed to be used and all other windows will be hidden, and disable all other functions. The monitoring and supervision of the participant while attempting the examination is made by using google meet application.

- ● Supervision
  - ○ Explore the surrounding environment of the student: ask the student to slowly recycle around the location inorder to examine what is surrounding. Keep in mind to navigate horizontally and vertically the floor and the roof both have to be examined too.
  - ○ In case the student lost connection for any reason, the student will be able to return to the question that was navigating it, therefore it's highly recommended to arrange the exam via distributing the questions layout one question per page.
  - ○ Examination **time period** should not exceed 45 minutes to reduce the probability of technical obstacles.
  - ○ **Students** who are **wearing** anything that might be covering the head of the student like or their ears.
  - ○ Students should place the laptop or computer on a **table** that doesn't contain any drawers.
  - ○ The lighting should be bright enough for the supervisor to monitor even the eyeballs of the participant.
- ●

Requirements:

- Student:
  - Smart mobile phone to be used to monitor the student. Students install google meet application from google play or play store depending on the device brand to login using an institutional email address which is provided by the IT department.
  - Good **internet connection**, 4G connection using mobile phone is highly recommended as the phone remains running to provide internet connection on battery unlike the other sources that rely on electricity source which might not be stable or students might intensely switch it off.
  - Laptop computer or desktop with following minimum specification to guarantee the smoothness of the examination process:
    - 2-GHz processor or above.
    - 4 GB of RAM or above
    - 100 GB of hard disk space
    - 10" display or above
    - 800×600 pixels display resolution.
- Supervisor
  - Good **internet connection**, 4G connection using mobile phone is highly recommended as the phone remains running to provide internet connection on battery unlike the other sources that rely on electricity sources.
  - **Laptop** computer or desktop with following minimum specification to guarantee the smoothness of the examination supervision process:
    - 2-GHz processor or above.
    - 4 GB of RAM or above
    - 100 GB of hard disk space
    - 20" display or above
    - 800×600 pixels display resolution

Exam setup

The following instruction descrip how to set up an examination using the methodology proposed.
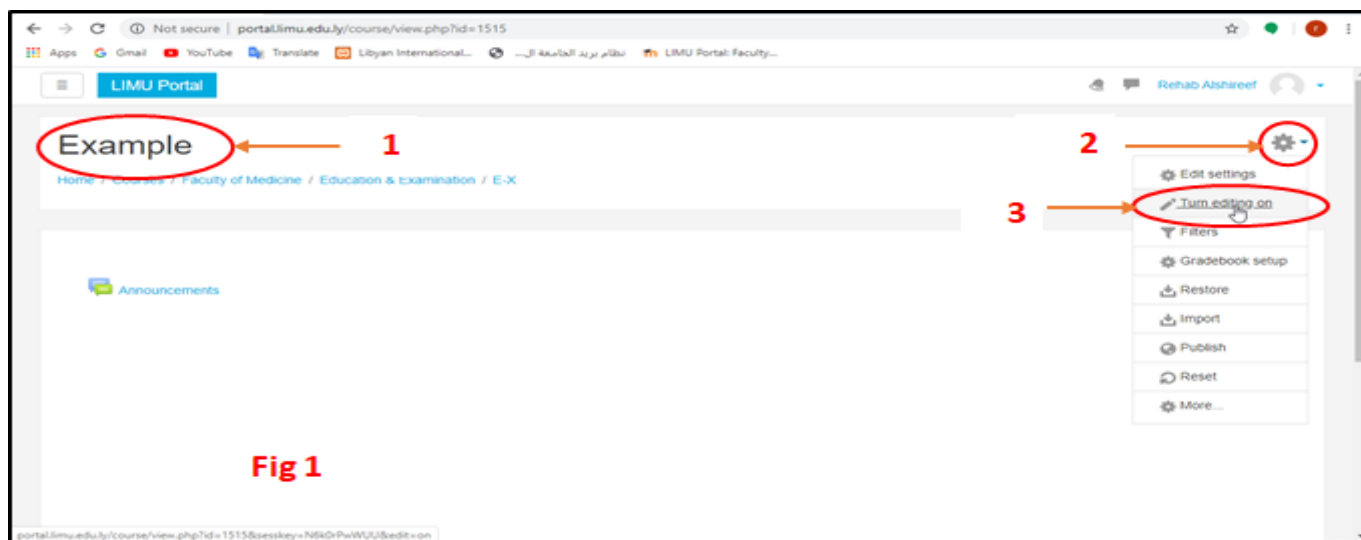
Examinar Guide

First Create Quiz with Moodle

1- Enter to the course which you want to do quiz inside it, after that press on this icon
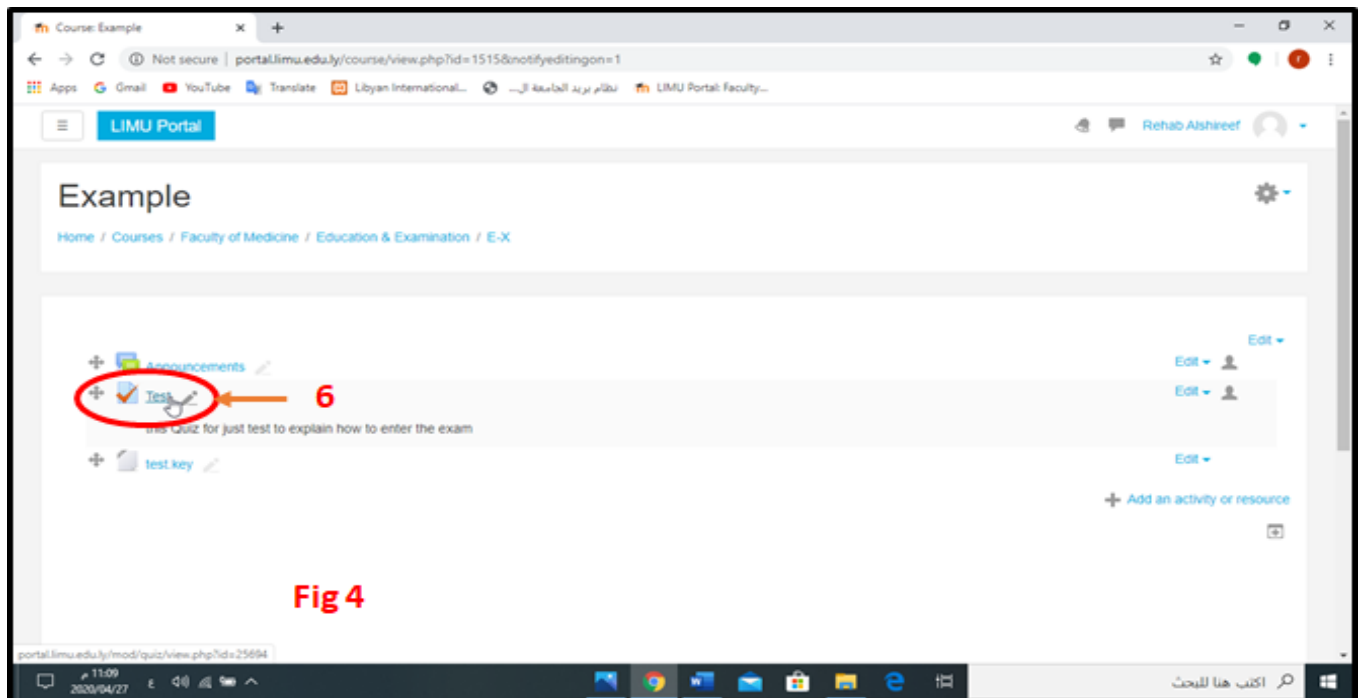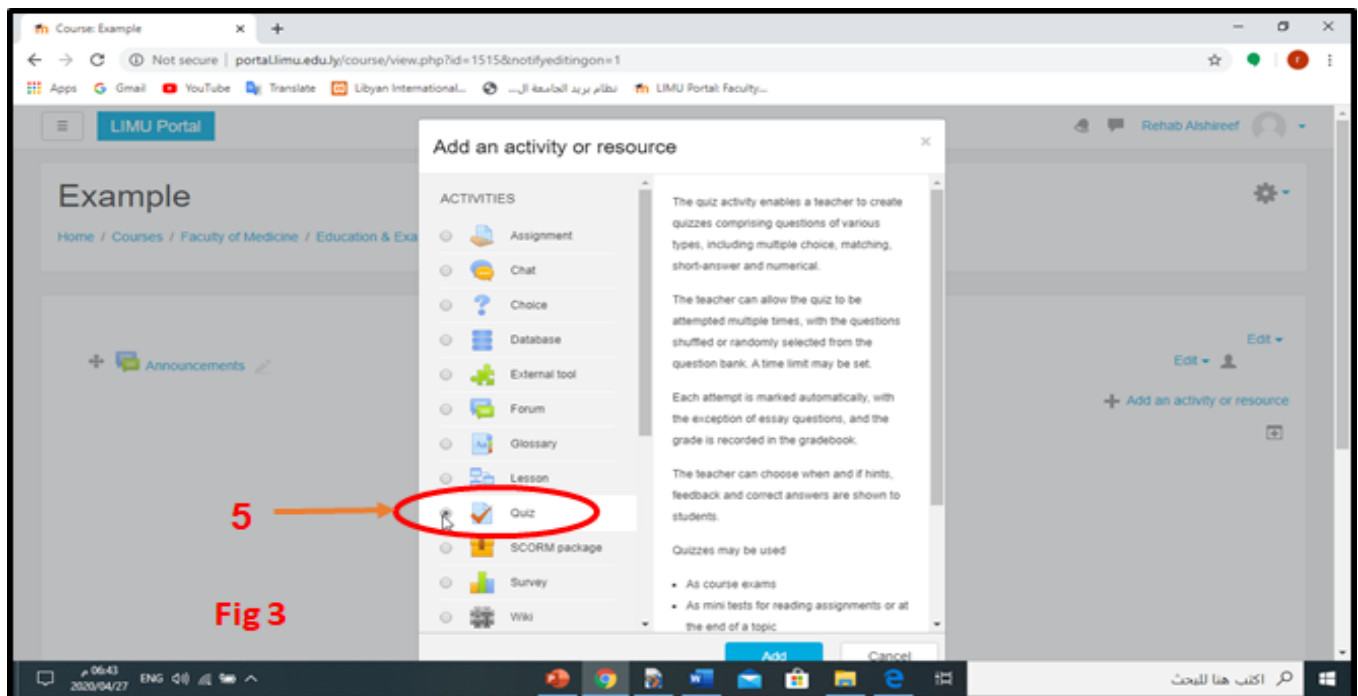
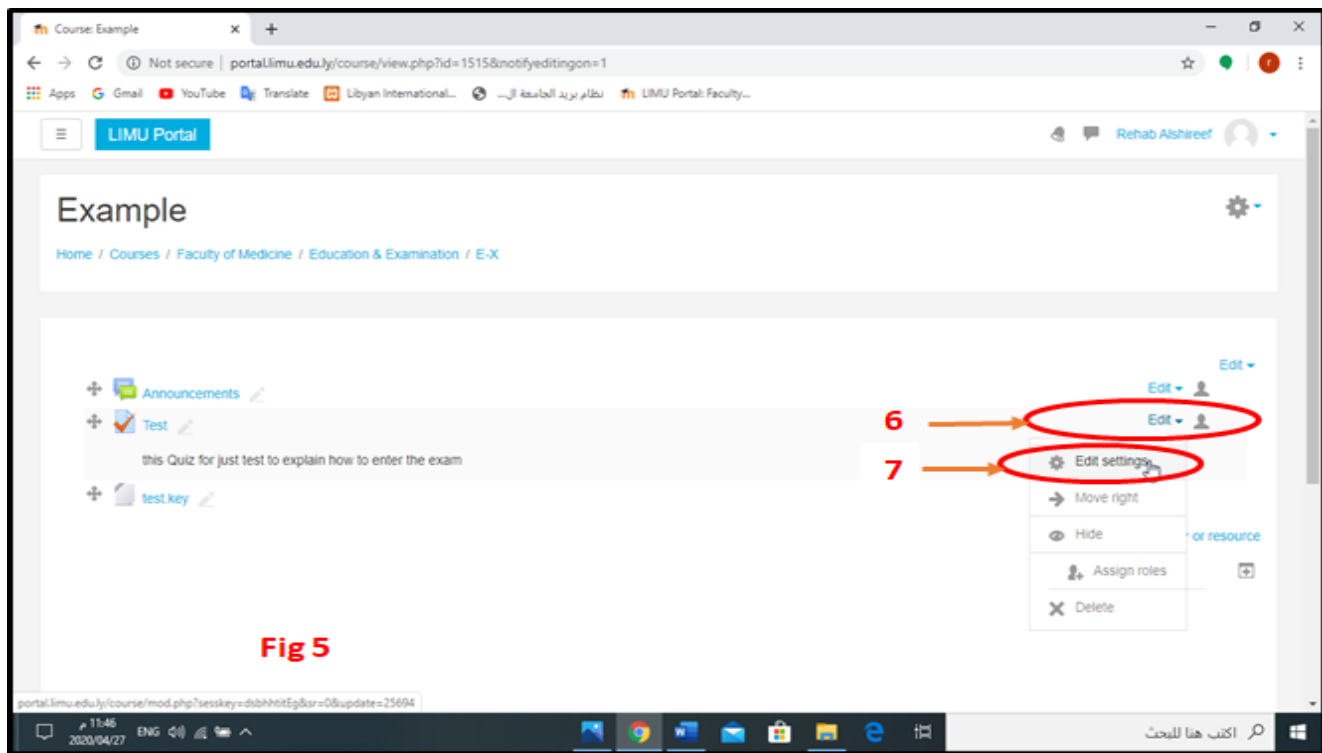Then choose from the list Turn editing on, after choose add an activity or resources
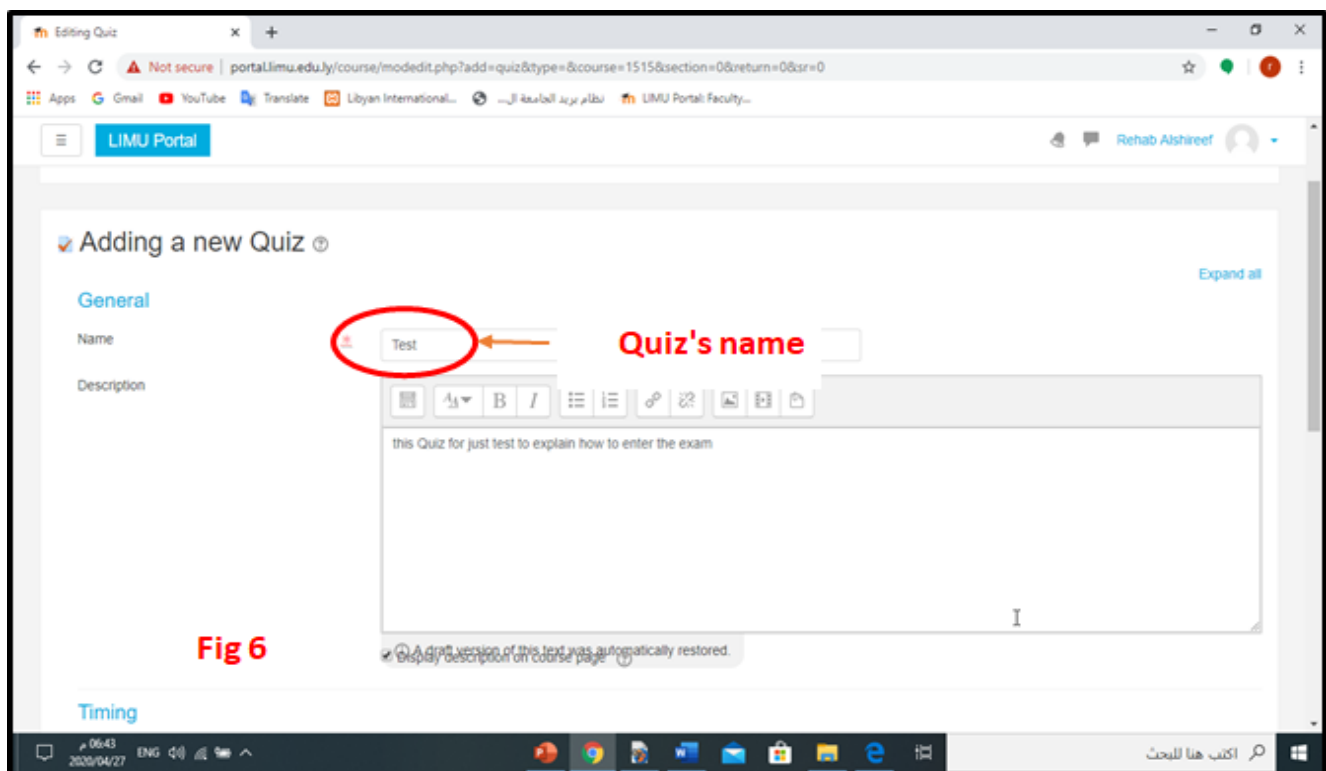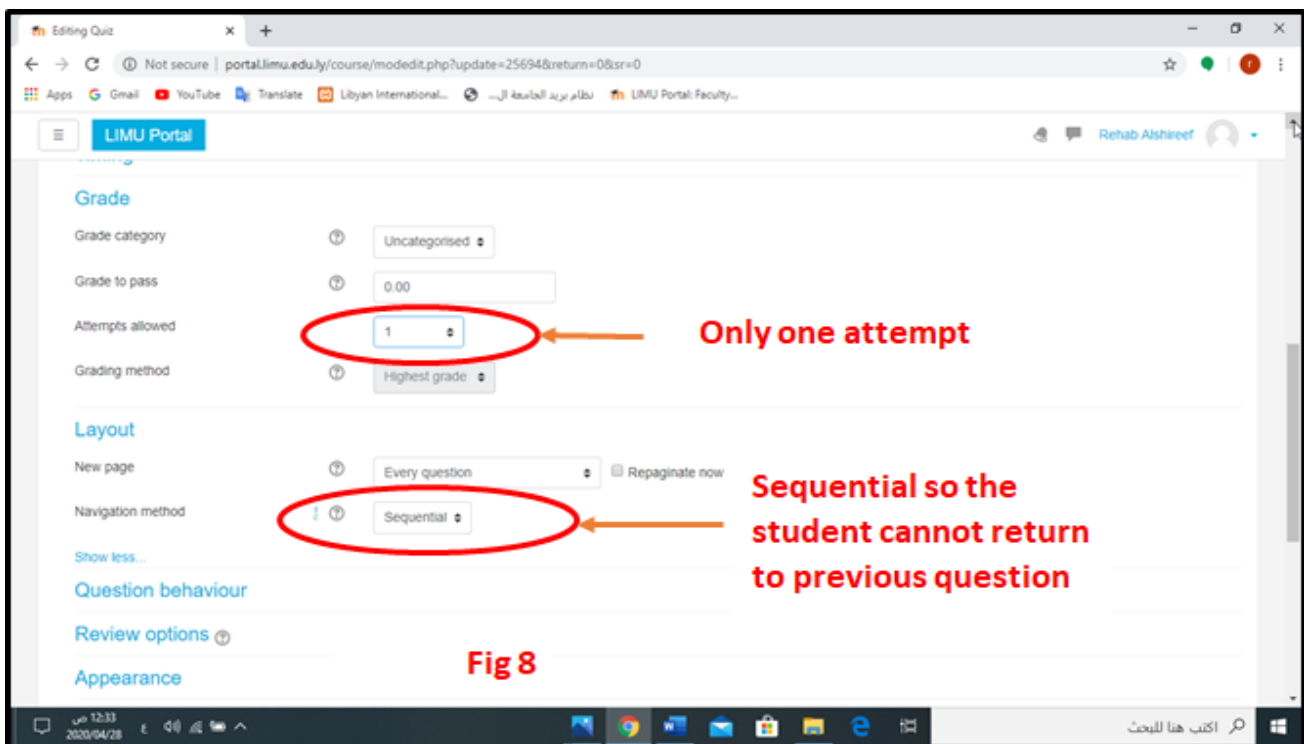
Then choose Quiz (fig 1, fig 2, fig 3, fig 4).

Fig 1
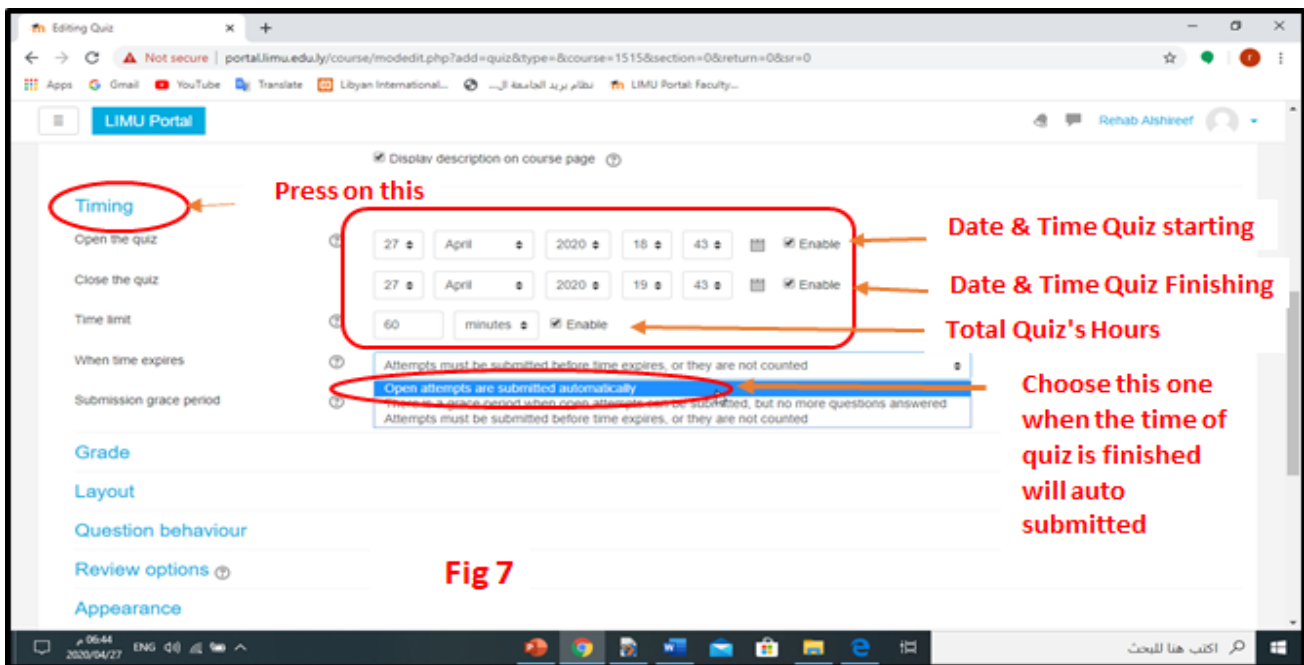

Fig 2

Fig 3

Fig 4
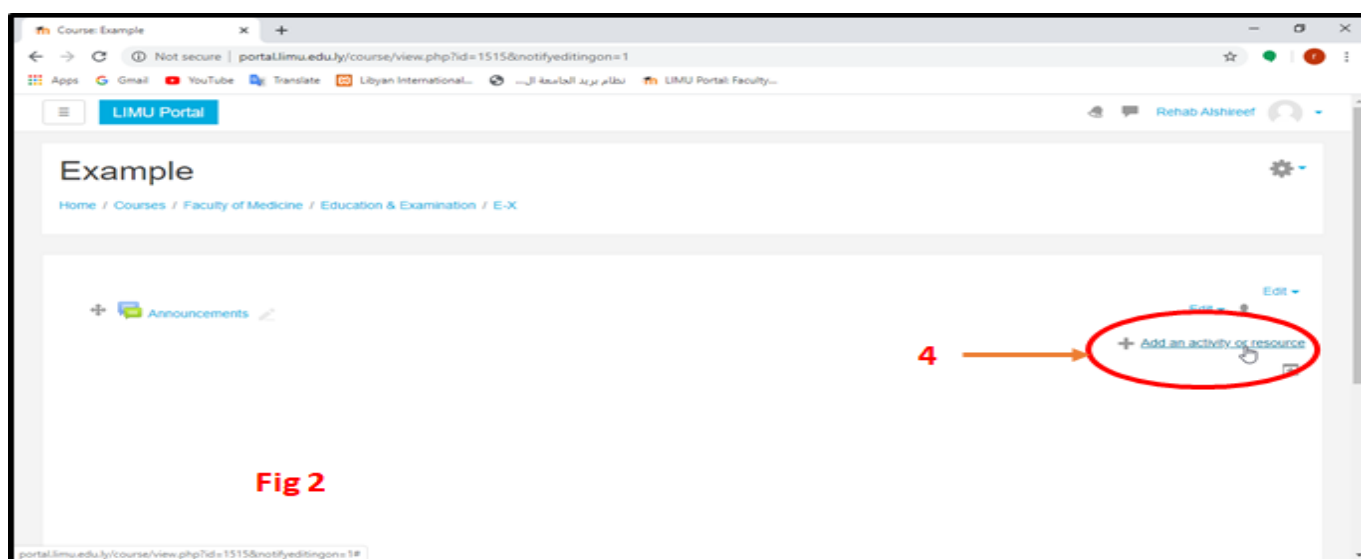
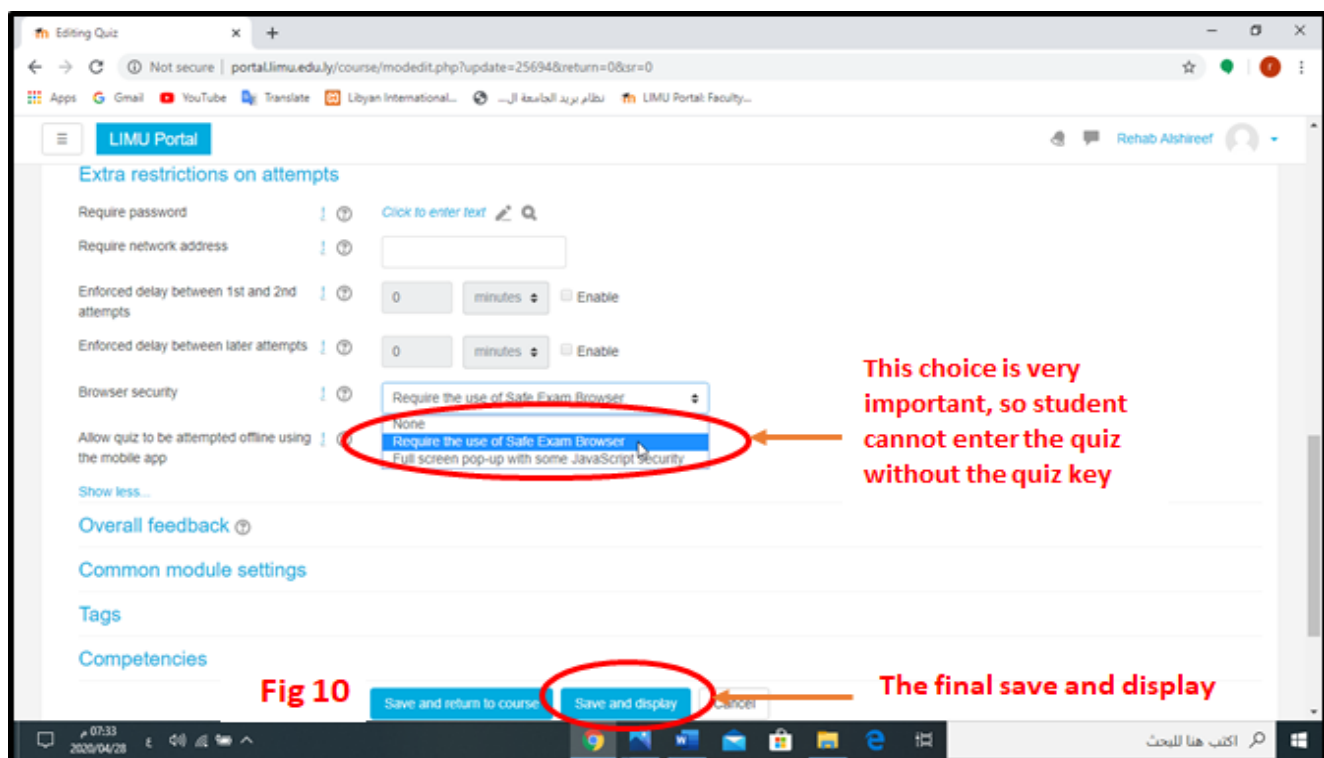Now the exam will be prepared and set up, this step is very important.
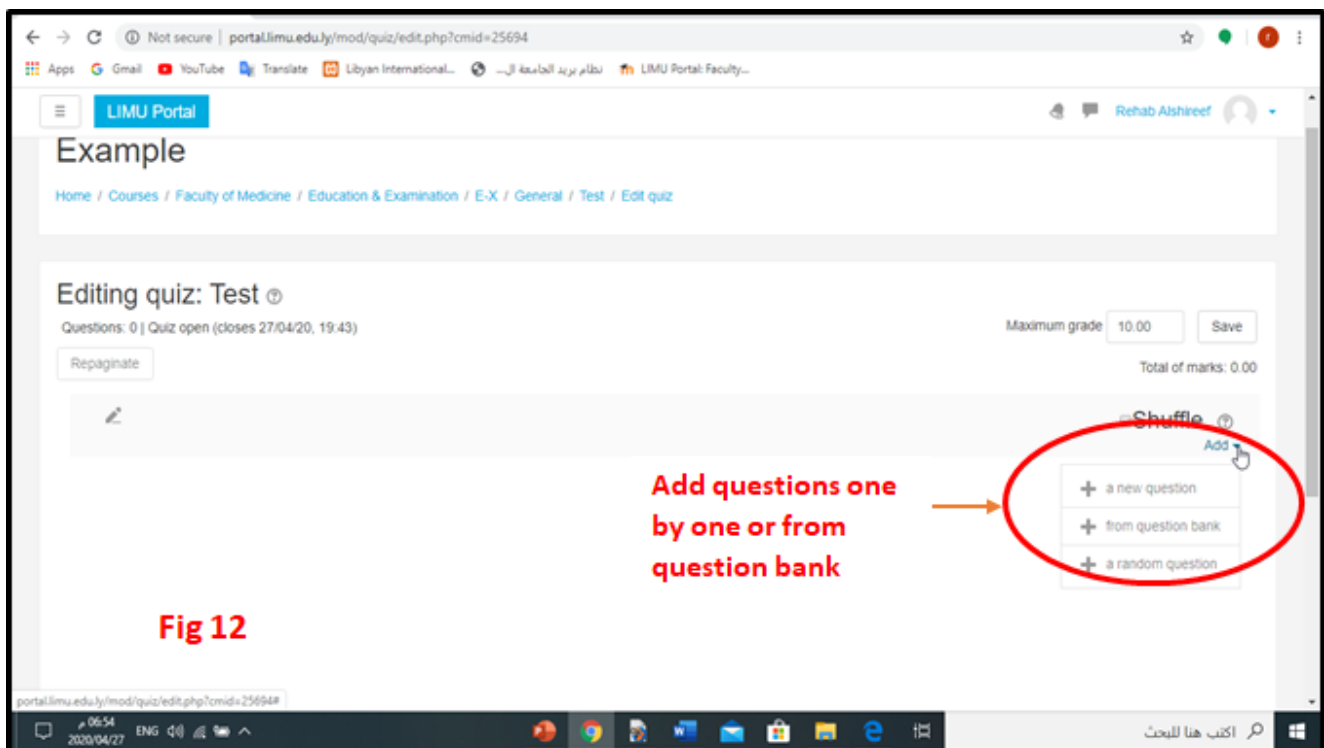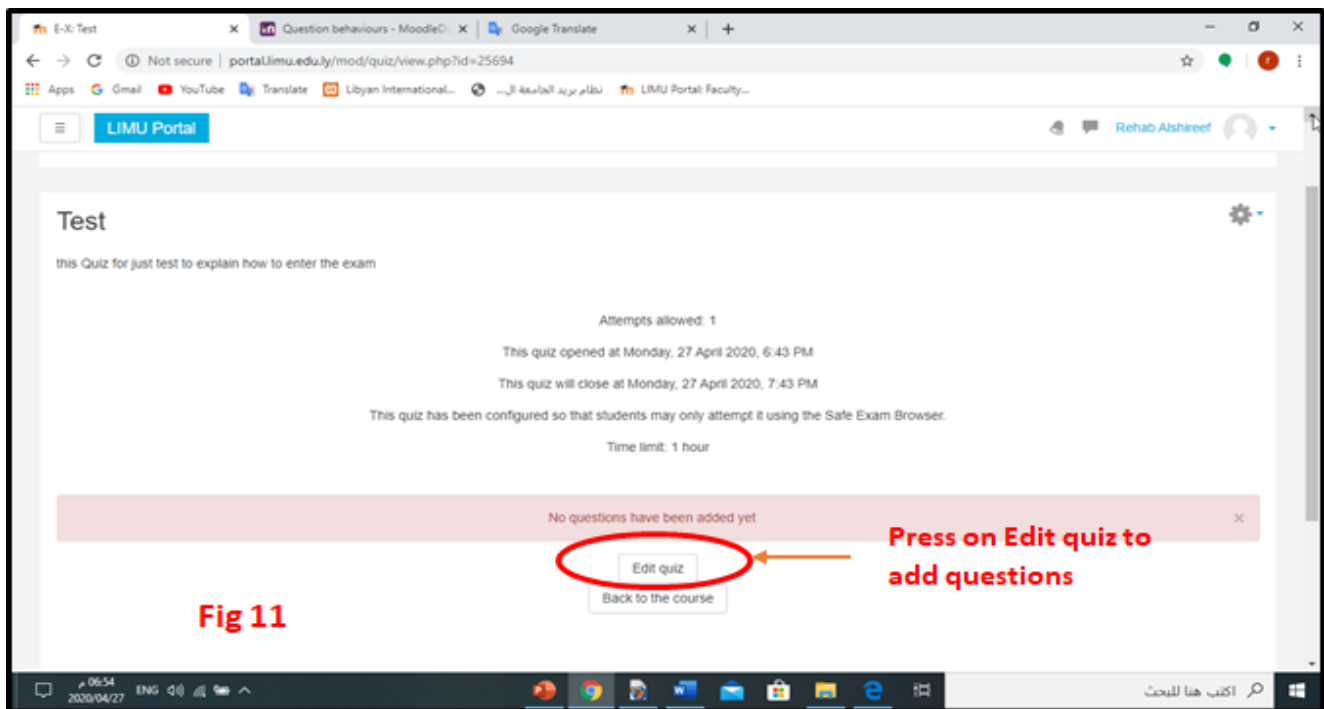
The explanation will be in figures

Fig 5

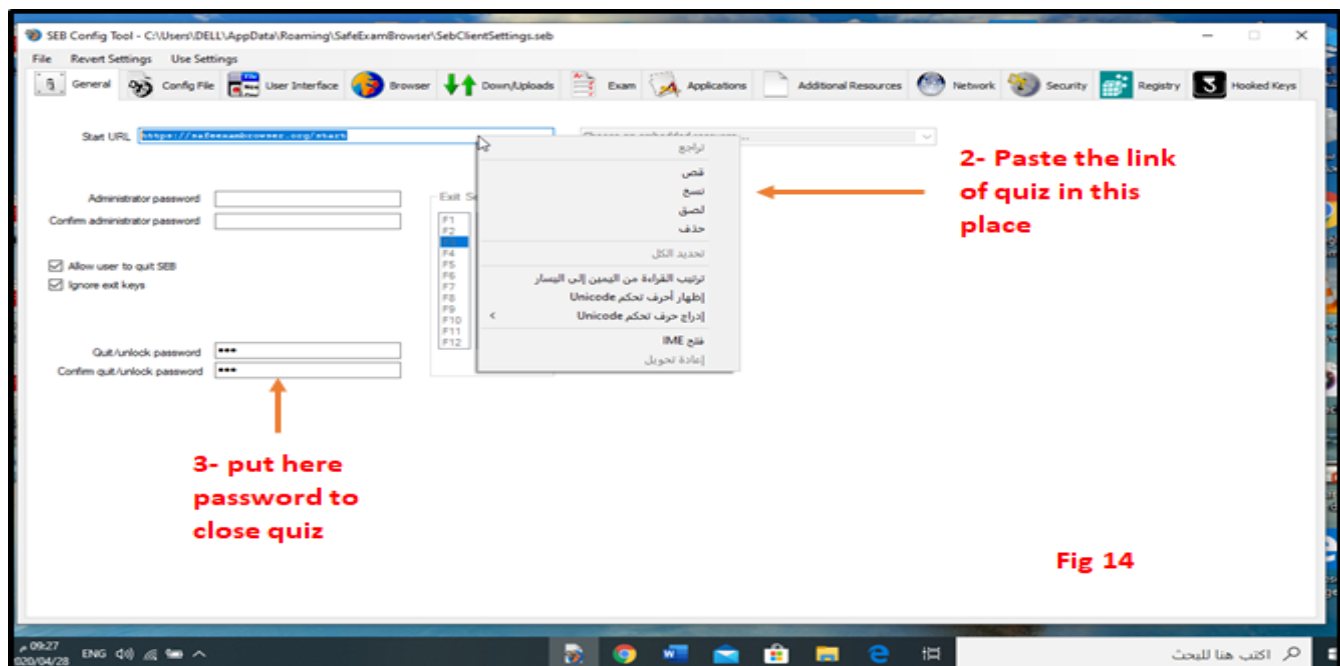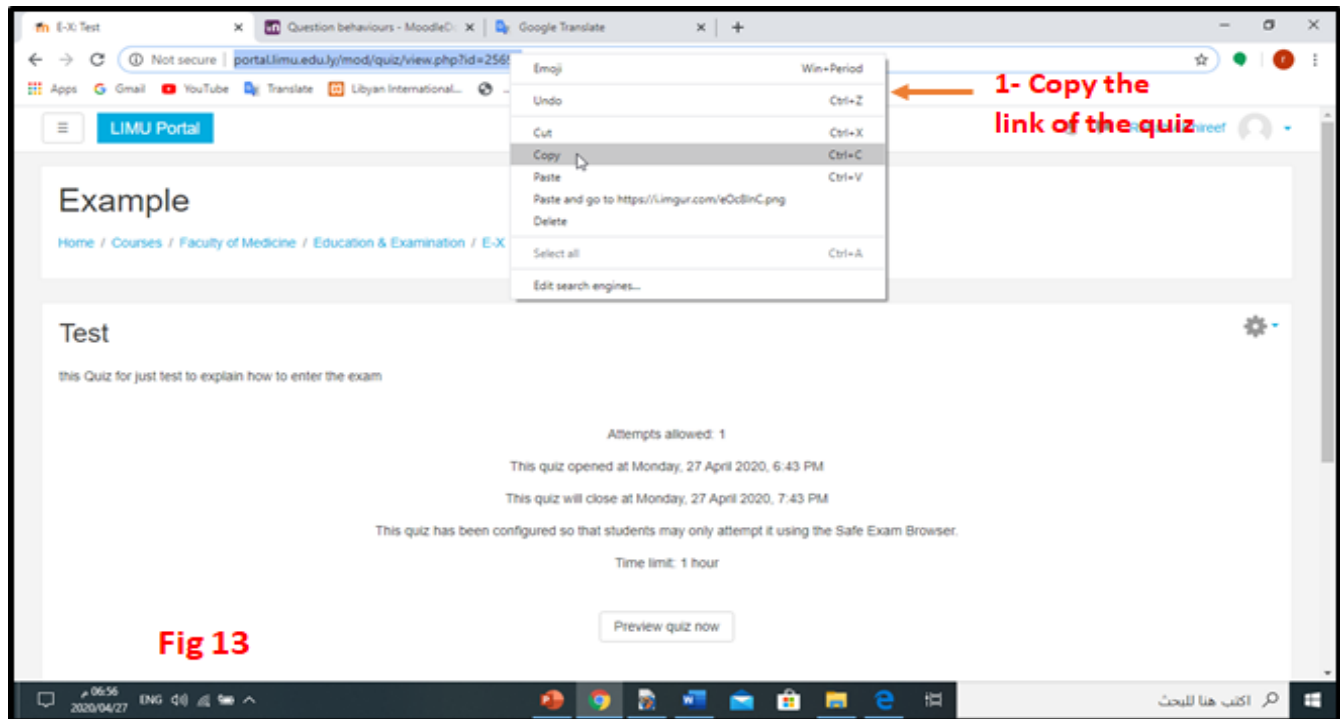Explanation of exam settings from Figure 6 to Figure 12

Fig 6

Fig 7

Fig 8

Immediate feedback, this will let student to submit each question

If the quiz is final those are choices will be empty

Fig 9

This choice is very important, so student cannot enter the quiz without the quiz key

Fig 10

The final save and display

Press on Edit quiz to add questions

Fig 11

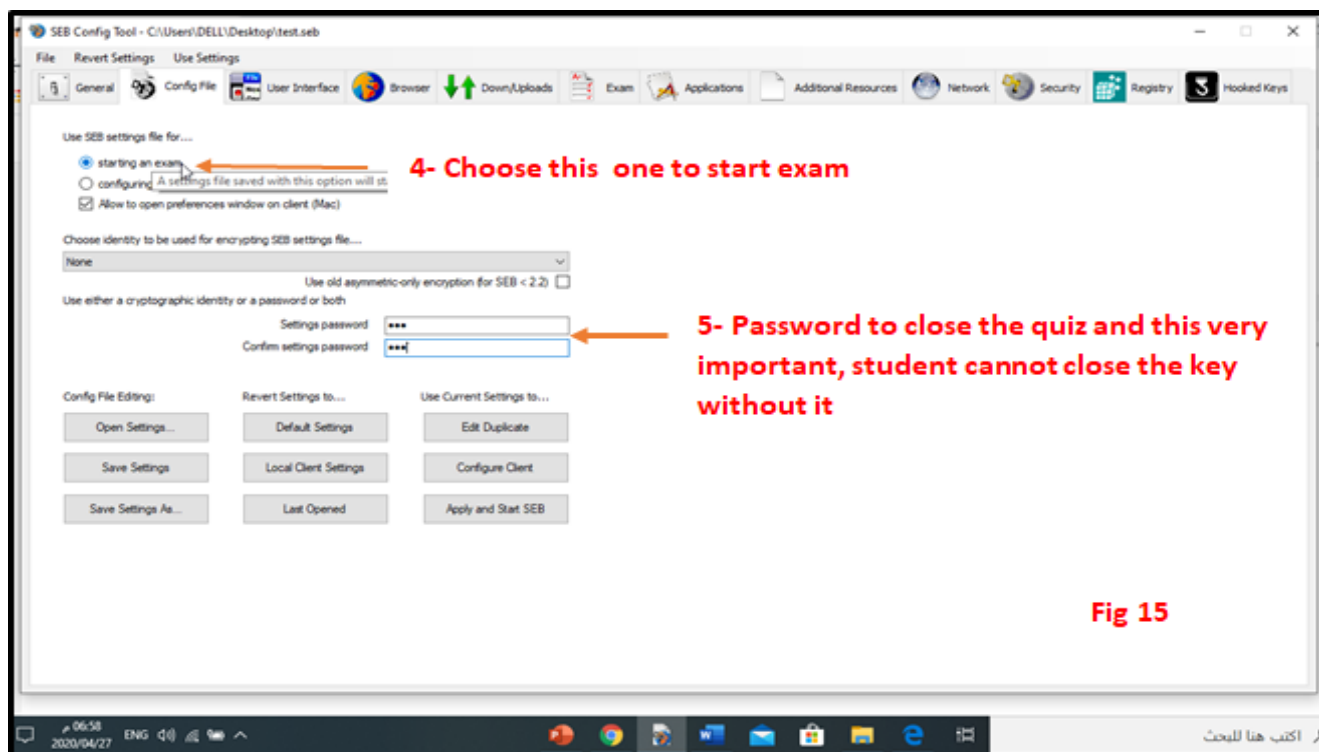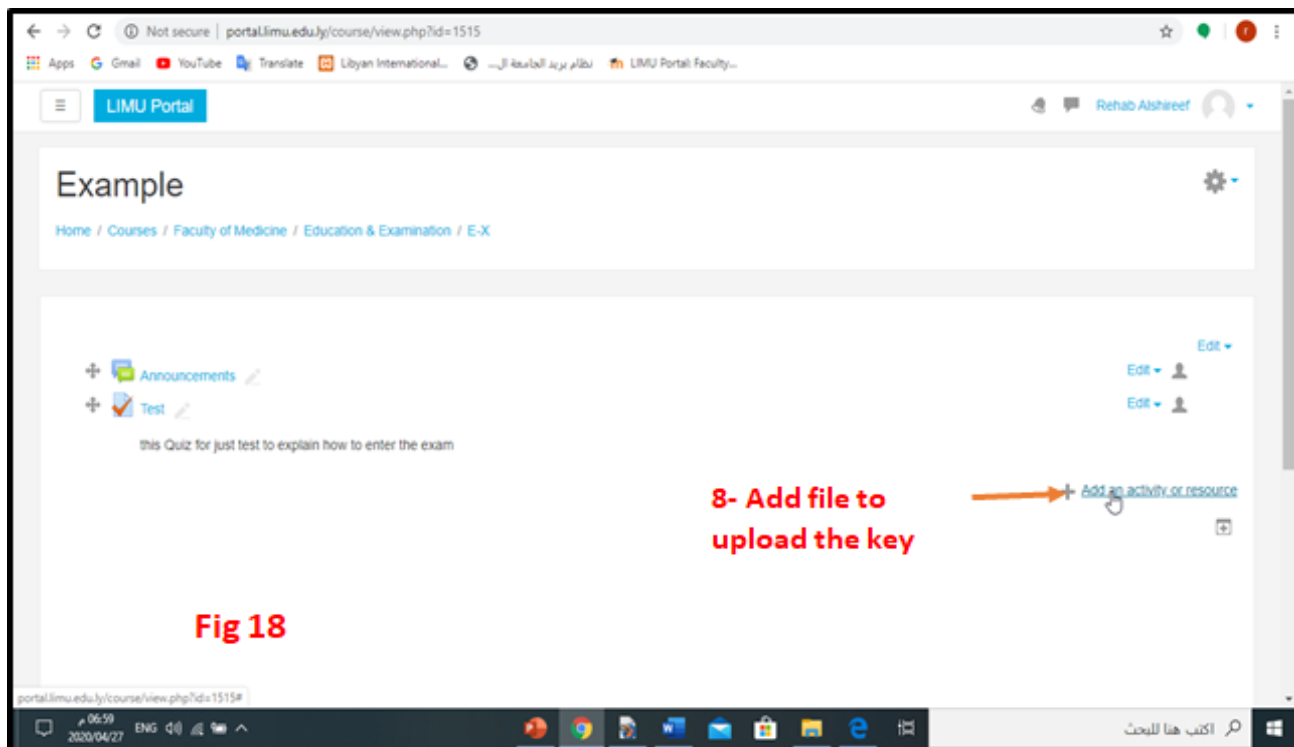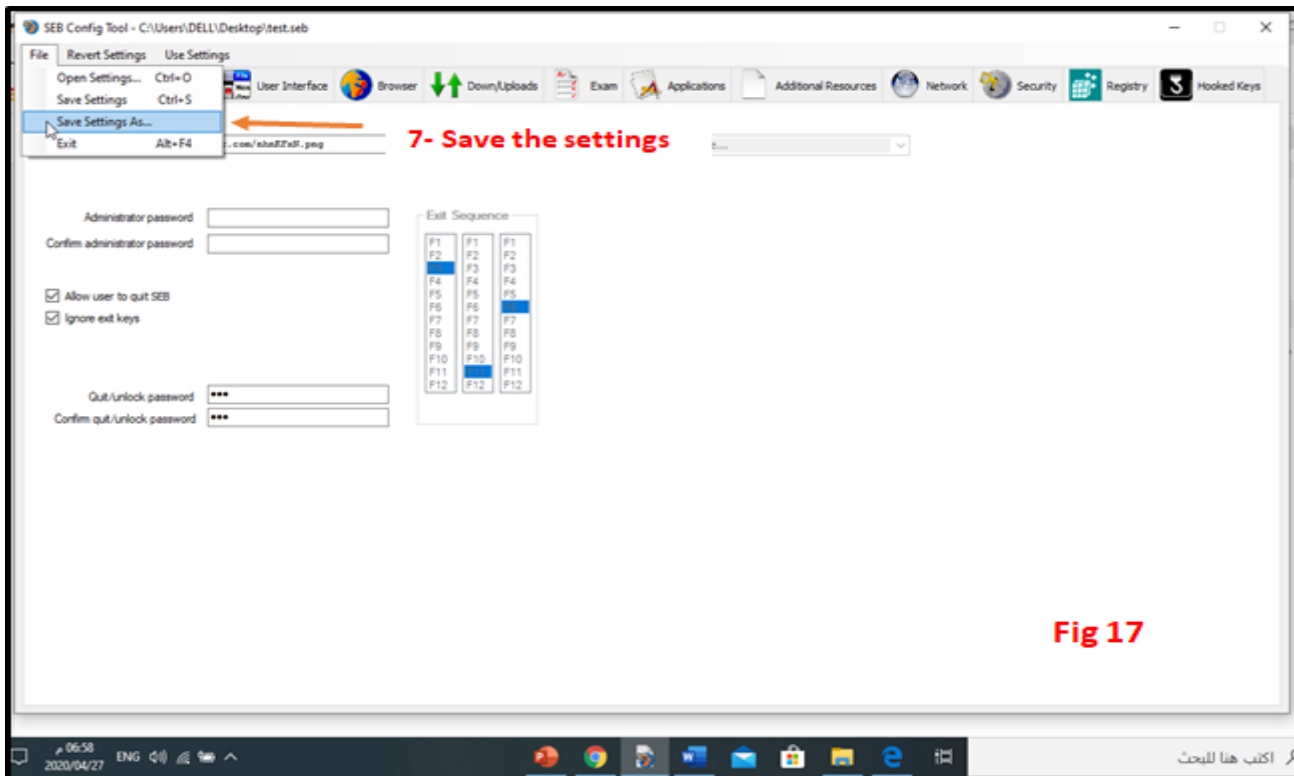**Add questions one by one or from question bank**

Fig 12
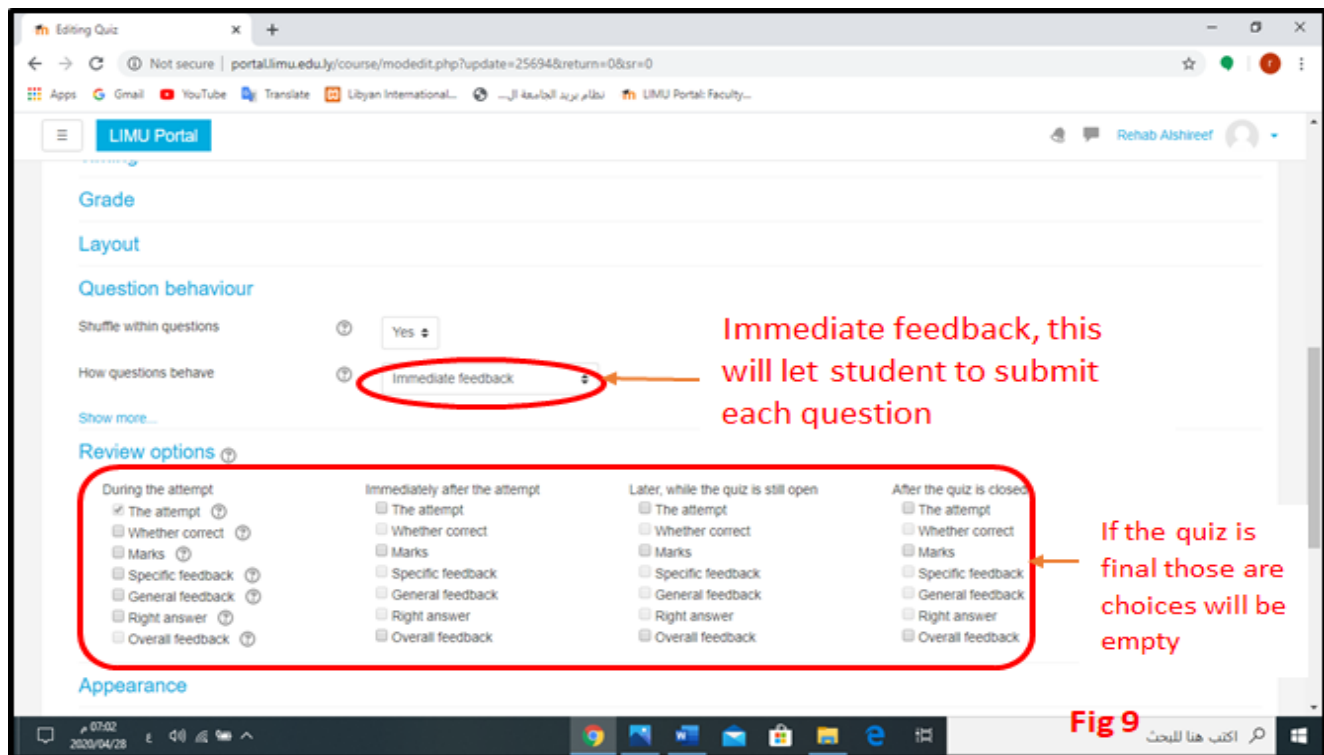
second step create the quiz's key by save exam browser
After download the save exam browser, open SEB config tool with this tool we will do quiz's key.

Fig 13

1- Copy the link of the quiz

2- Paste the link of quiz in this place

3- put here password to close quiz

Fig 14

4- Choose this one to start exam

5- Password to close the quiz and this very important, student cannot close the key without it

Fig 15

6- Press on middle one to use full screen mode

Fig 16
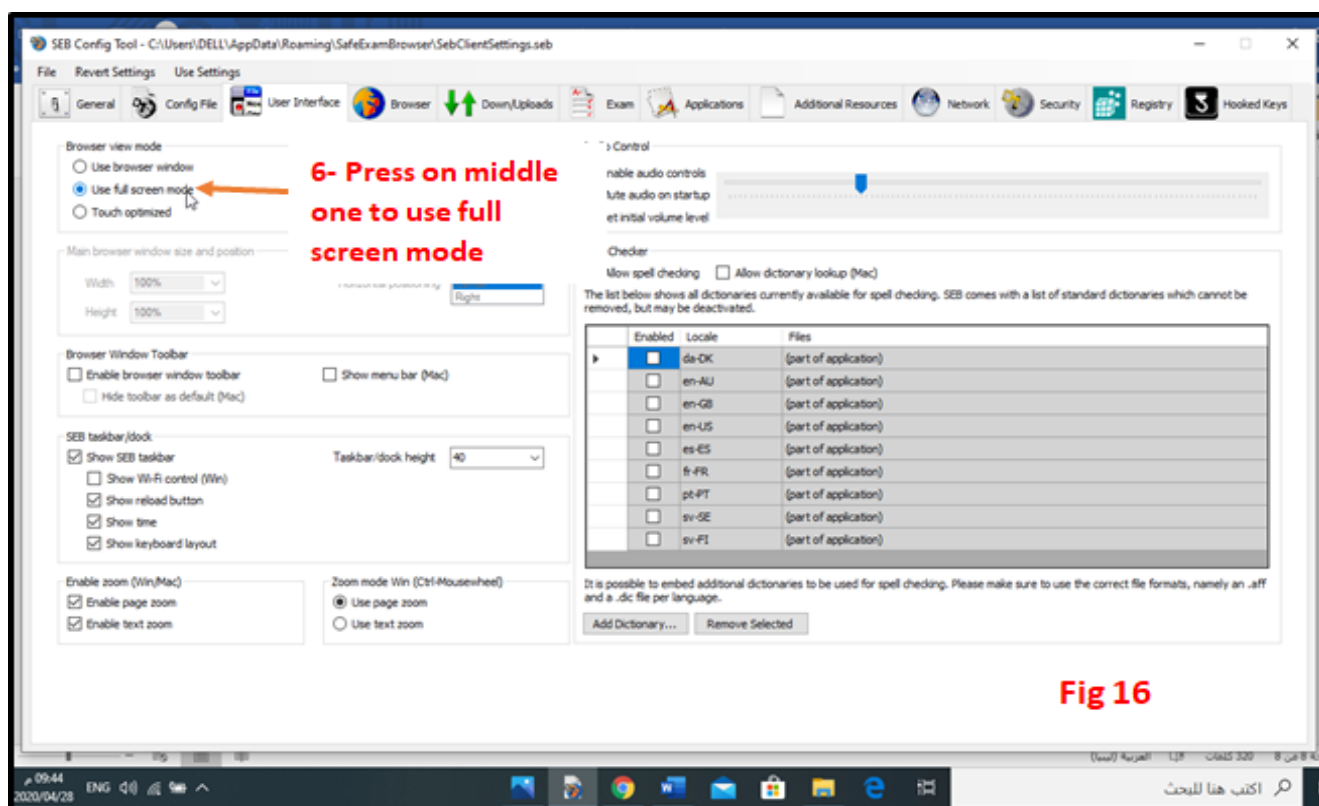
After we do all settings, will save

7- Save the settings

Fig 17

8- Add file to upload the key
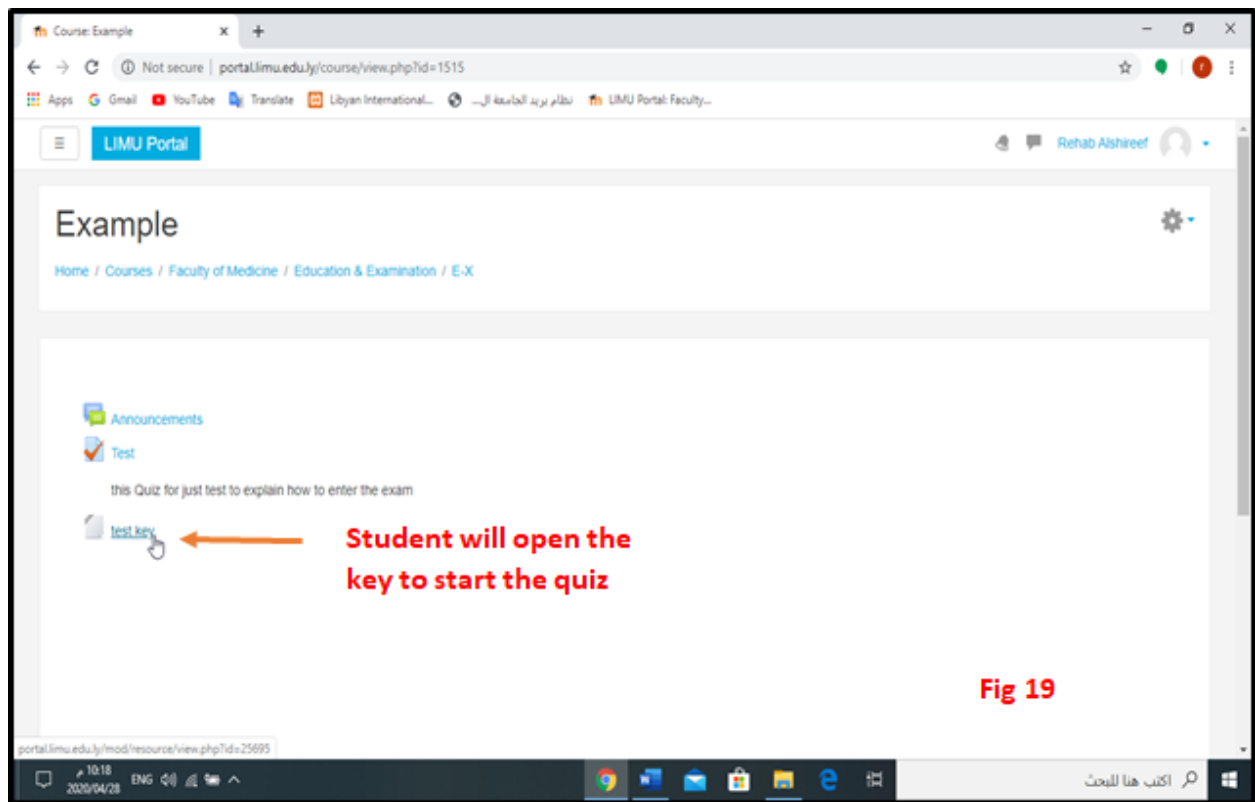
Fig 18

Student will open the key to start the quiz

Fig 19

Student Guide:

1- Download the save exam browser program on a computer from the link that was sent on the moodel The attached image of the program is pressed next until the appearance of finish The program does not open because this program opens the exam only It is necessary that it be loaded with the device to open the exam and thus we have finished Prepared from the Computer.
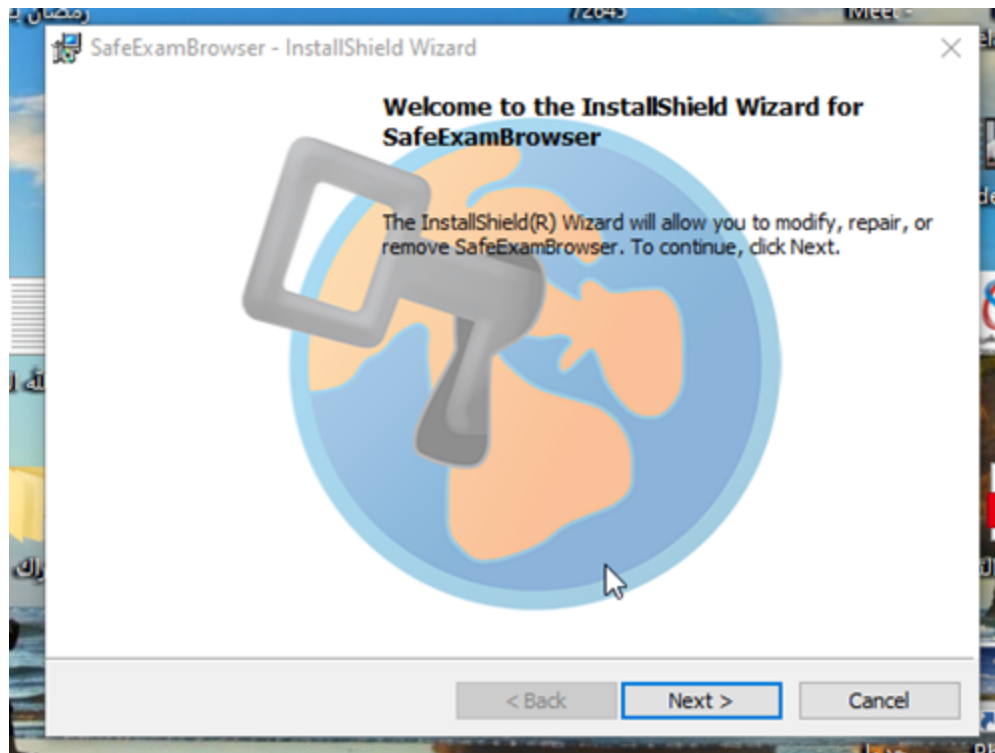
2- Download the university email on the mobile (open gmail) and the e-mail is added, as
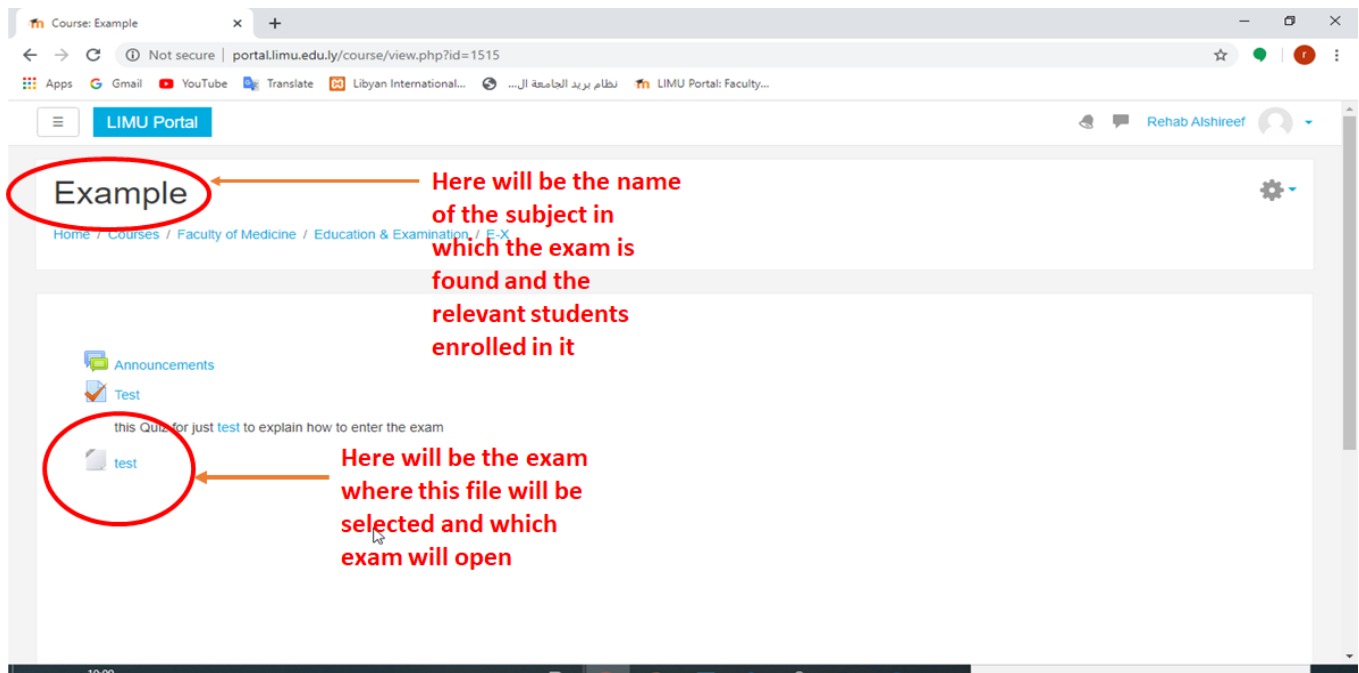Follows:

3- Download google meet on mobile and open the university email via this reference in the
Picture
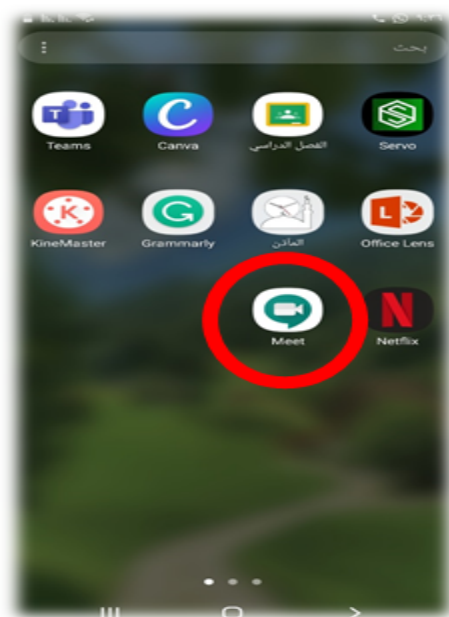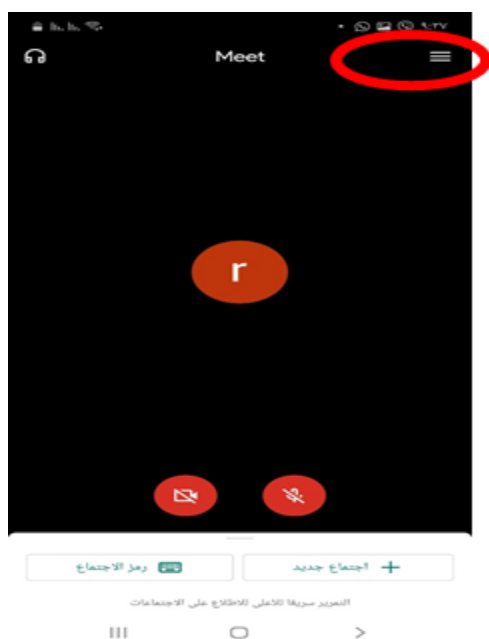
With this, we have finished downloading programs and settings.

4- The examination method is as follows:

● Opening the model and entering the course in which the exam is located, as in the figure:

● After clicking on the exam, it will be loaded into the device, after which it will be opened directly as in the following figure:
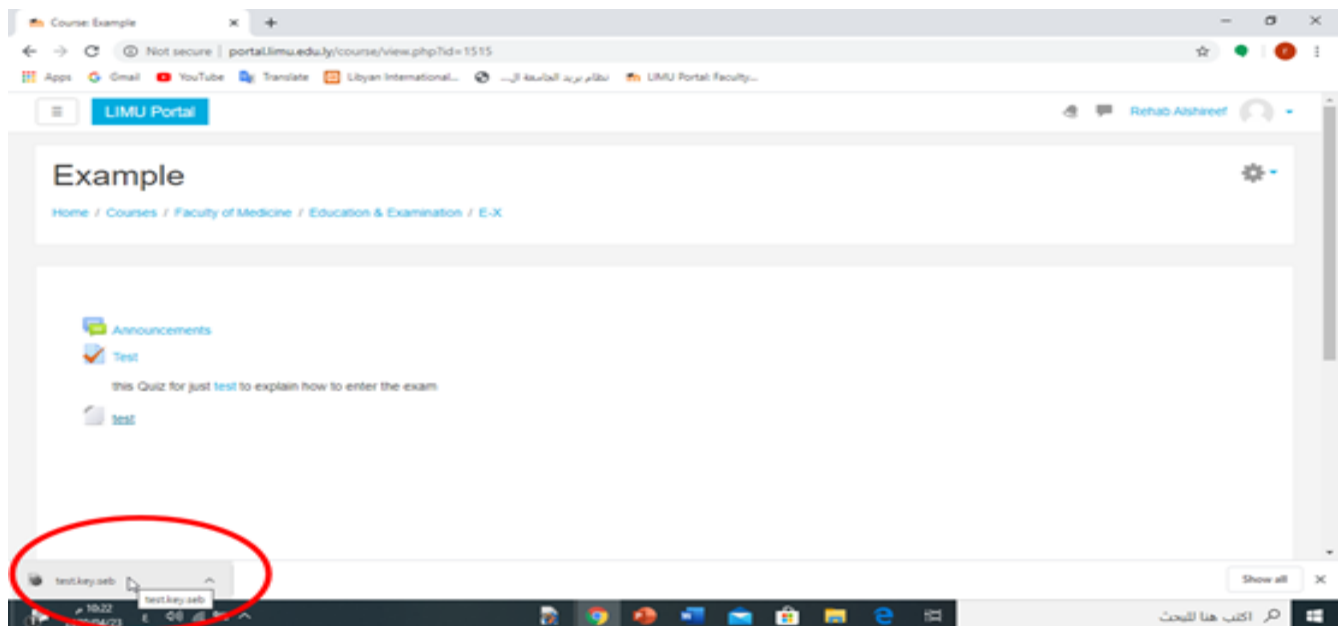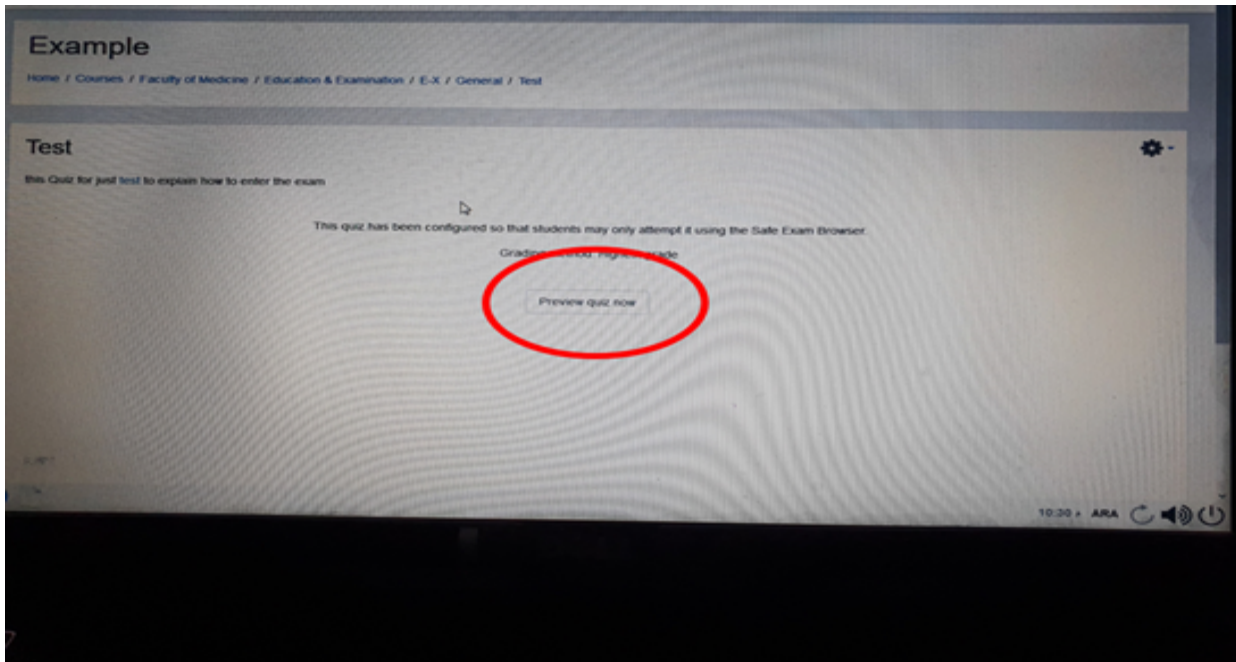
● After opening it, the following screen will appear, in which you will enter a password that will be attached on the day of the examination:
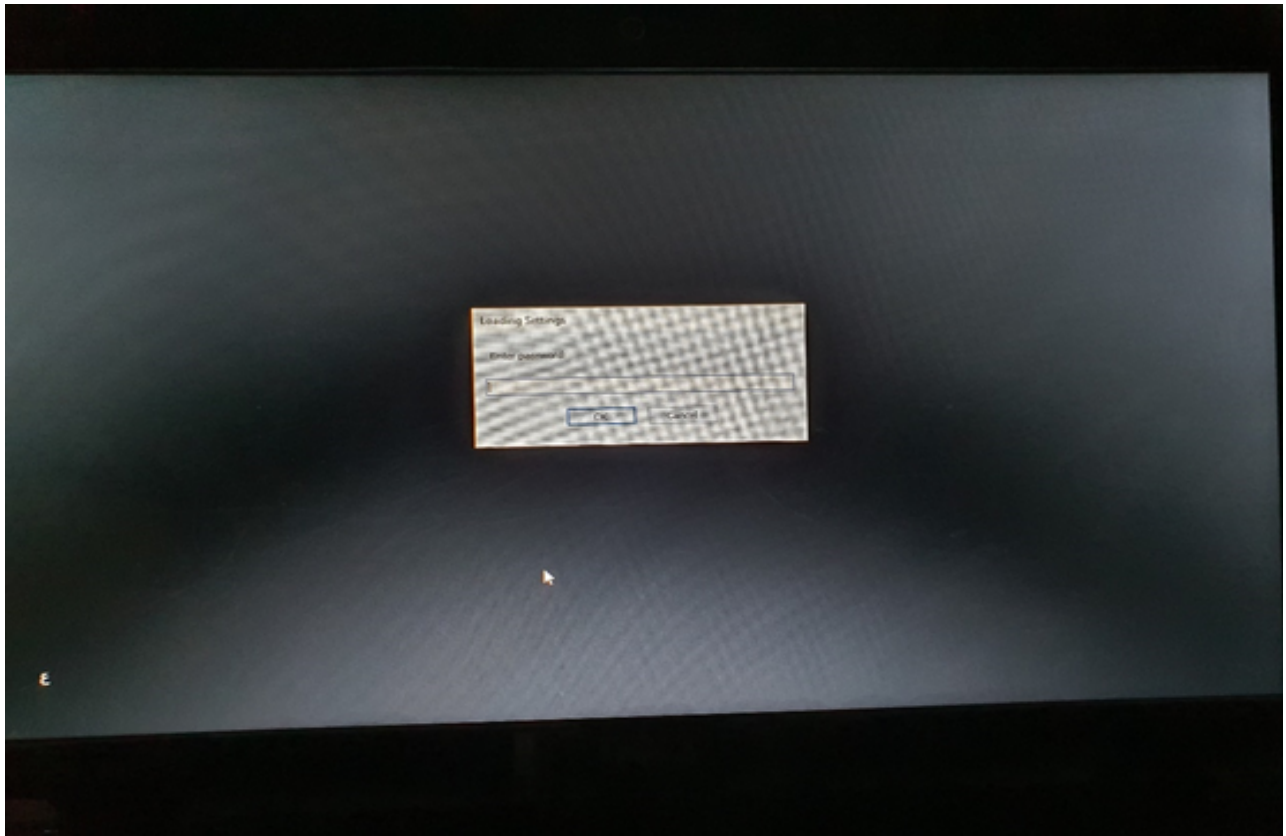
● After entering the password, the following screen will appear in which to enter the username and password for the moodle:
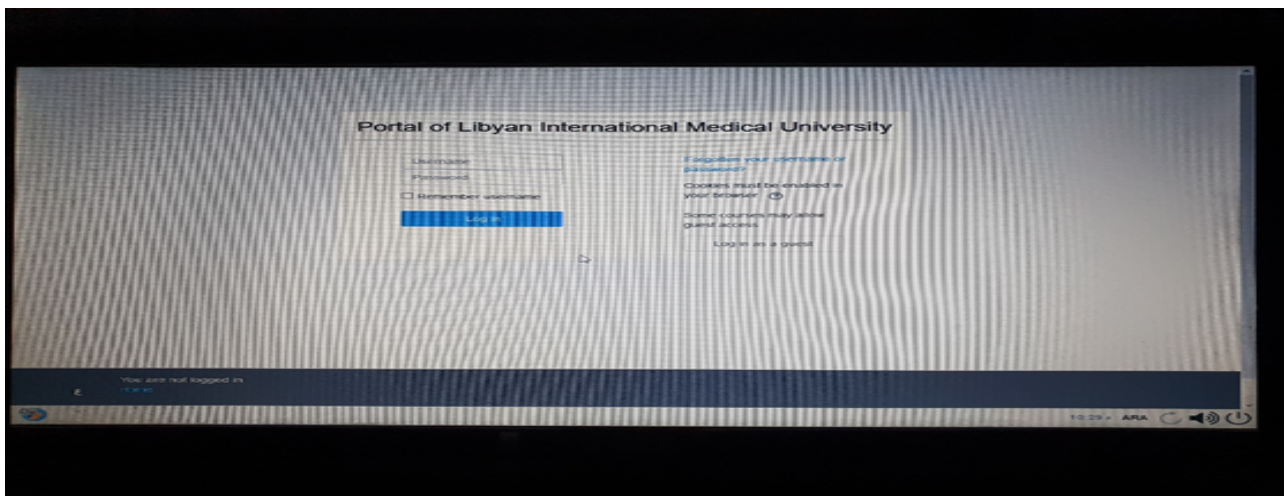
- After that, the exam will start by clicking on preview quiz now so that the questions will appear as follows:
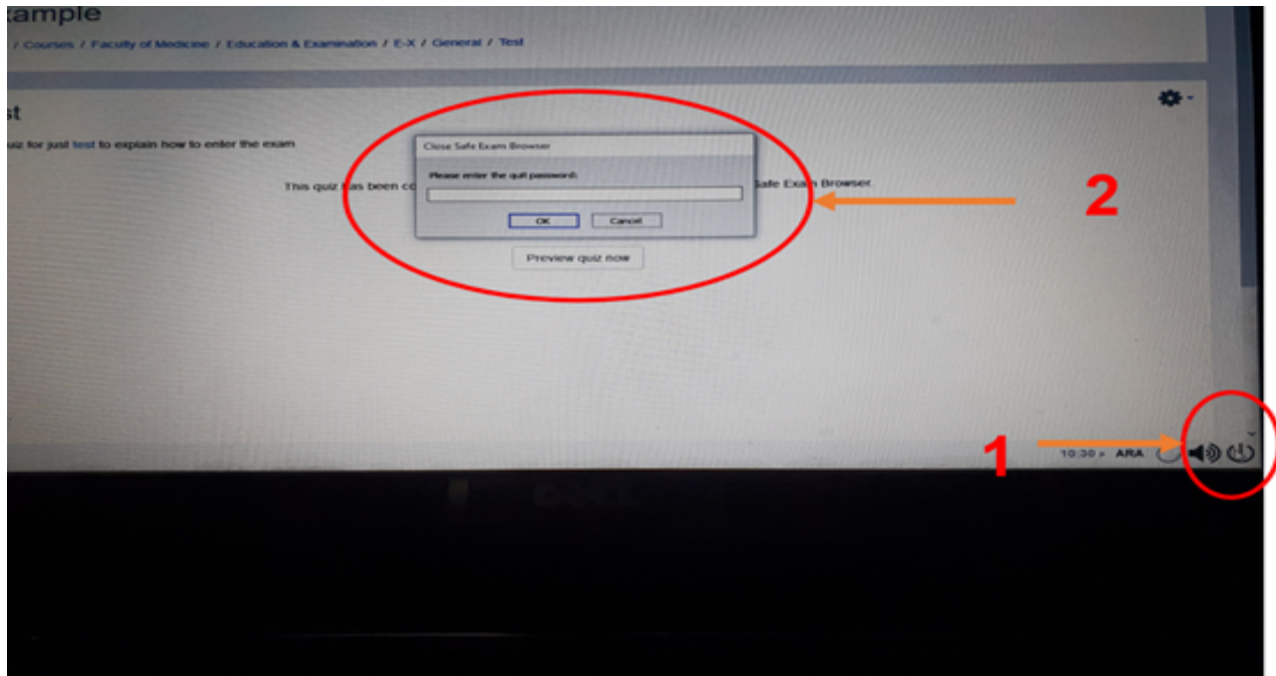

- Each page has one question and when choosing the answer click on the word (check) if there is, then move to the next question:

Important Note:

You cannot move between questions because the answer will be final

● Upon completing the exam, clicking on the program closure icon, which will be executed with a password, is given at the end of the exam, as in the following figure:

Notes:

1- Opening the google meet program on the mobile phone as mentioned previously by the university email, and the camera and microphone are opened.

2- Putting the mobile in an angle so that the entire room and the student are seen during the exam.

3- The meeting code for the google meet program will be sent to the moodel before the start of the exam.

4- The exam will only open when the safe exam browser program is loaded on laptop or desktop devices.

5- The timing of the exam will be announced at least one day before the exam.

6- When the exam is opened, the number of questions and the number of exam hours will appear on the screen.