

## catalogue

Part I Introduction.....	one
Part II Input and Calculation.....	2
Step 1: Enter the standard answer.....	2
Step 2: Enter the students' answers.....	four
Step 3: Enter the total score.....	seven
Step 4: Click the "Calculate" button.....	eight
Part III Results and Command Buttons.....	nine
Show results.....	nine
command button.....	10

## Part I Introduction

### Visual interface: GUI

For the convenience of users, we use Python's Tkinter library to build a graphical user interface called "GUI". "GUI" has the function of importing standard answers, student answers and total scores. In addition, it can calculate the scores of students' answers and analyze the difficulty of each question through the input files, and save the results to the corresponding excel. The visual interface is shown in Figure 1.

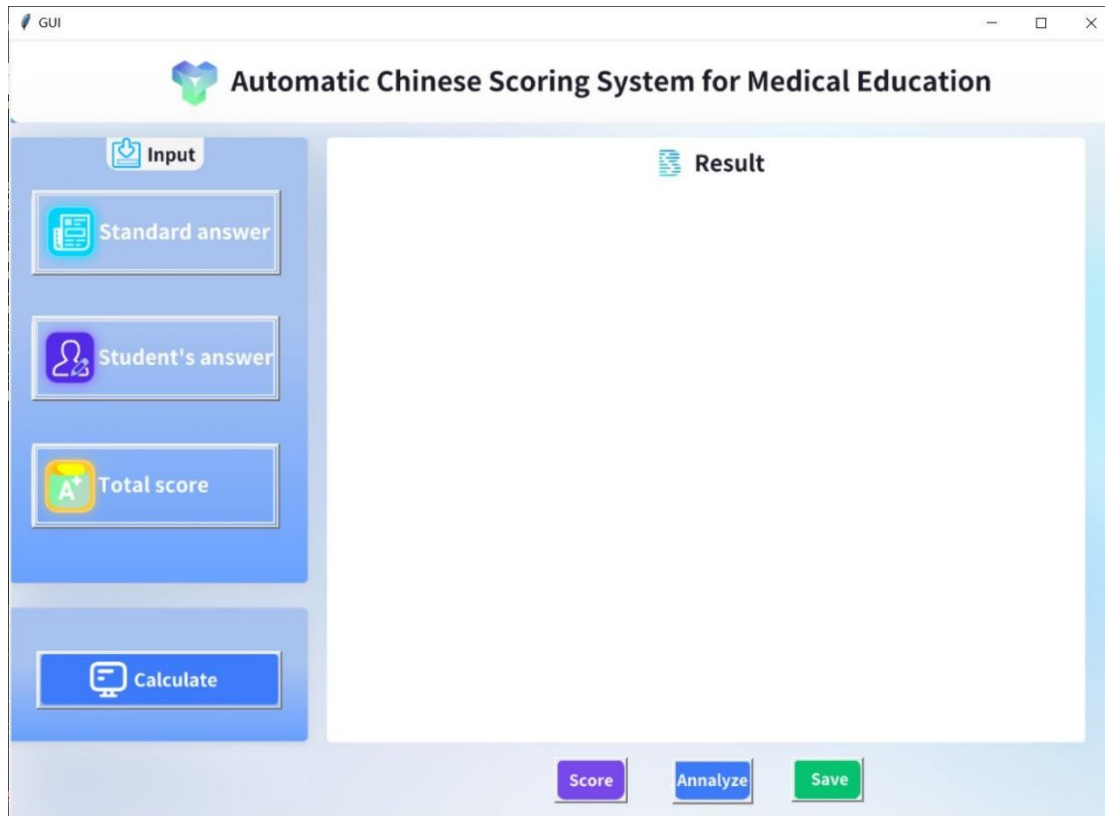


Figure 1: Visual interface "GUI"

The interface consists of several parts: (1) Data import (top left) includes standard answers, student answers and total scores. (2) The Calculate button (bottom left) is used to grade the students' answers. (3) Result display (upper right): When the program calculation is completed, a table will appear at this position to display the results. (4) Command buttons (bottom right) include "Score", "Analyze" and "Save". The function of "score" is to show the scores of students' answers. The function of "Analysis" is to display the analysis of each problem. The function of "Save" is to save the results to an excel file. The interface is shown in Figure 2.

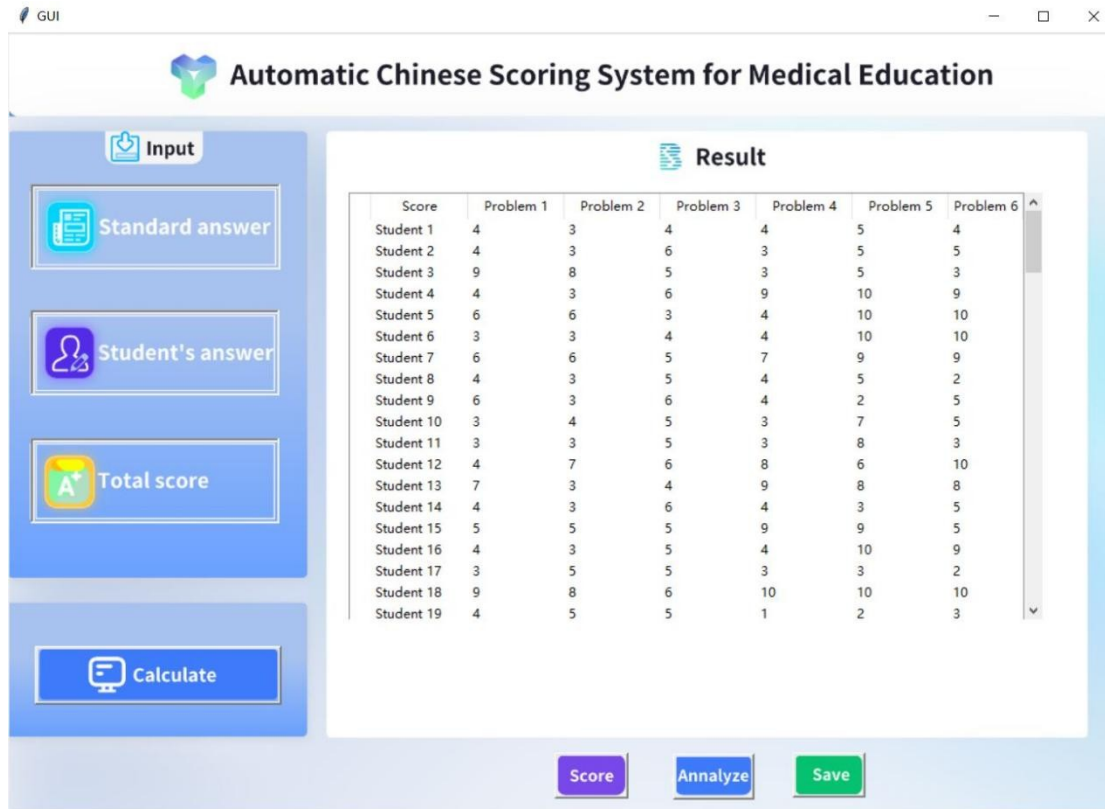


Figure 2: Results interface

## Part II Input and Calculation

Step 1: Enter the standard answer.

Click the interface button "Standard Answer" and enter the corresponding file. It is worth noting that the suffix format of each input file "standard answer" is ".xls", the first column is the label of each question, and the second column is the standard answer of each question. The process of inputting standard answers is shown in Figures 3 and 4. The file format is shown in Table 1.

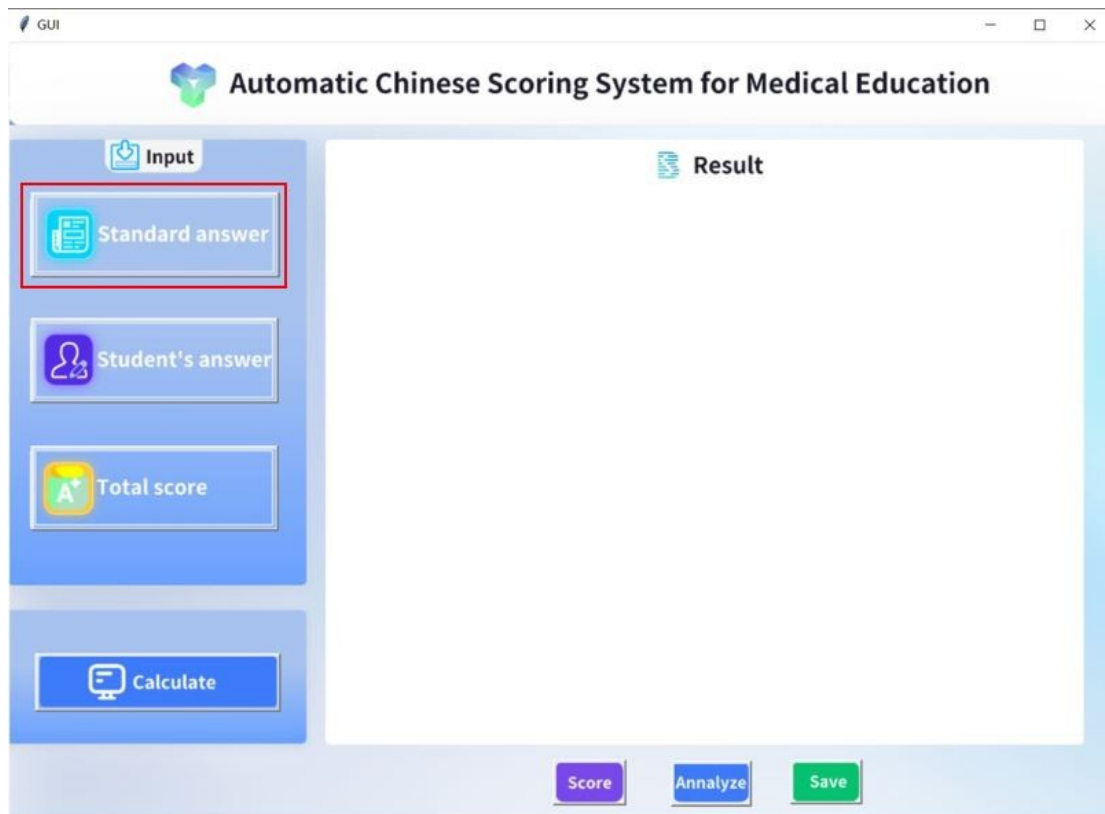


Figure 3: Click the interface button "Standard Answer"

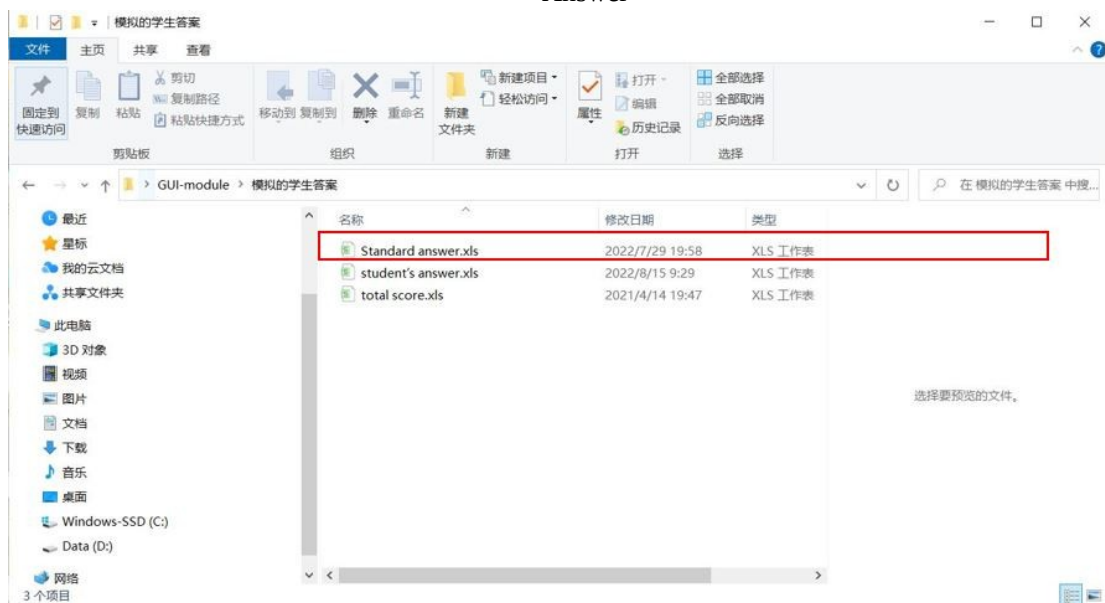


Figure 4: Input file "standard answer" Table 1: File "standard answer" format

question

model answer

Healthy behavior: refers to the number one that helps individuals to keep in good physical, psychological and social condition and prevent them.

( one )	<p>The behavior of disease. It is closely related to the belief of health, and it is an individual's effort to maintain, realize and rebuild health.</p> <p>And disease prevention activities.</p>
	<p>Drug injection self-efficacy: it is the individual's belief that he/she successfully performs a certain behavior and leads to the expected result, which belongs to the category of self-confidence. Self-efficacy plays an important role in regulating the intention stage of setting healthy life goals, the stage of specific behavior change and the process of preventing relapse. Self-efficacy comes from four aspects: successful experience, alternative experience, verbal persuasion and physiological state.</p>
3	<p>Drug addiction: refers to compulsive and uncontrolled drug use, which is the mental dependence and health of drugs.</p> <p>The result of mutual dependence. Addictive drugs can cause mental pleasure or relieve troubles, which is the trigger condition.</p>
4	<p>Alcoholism: also known as alcohol abuse or problem drinking, it causes physical or mental damage or bad society.</p> <p>The consequences of excessive drinking. It is characterized by uncontrollable drinking, preoccupation with alcohol and reckless drinking. Thinking disorder; Each symptom may be persistent or periodic.</p>
5	<p>Internet addiction: it refers to a chronic or periodic state of obsession with the Internet, and irresistible re-use.</p> <p>Desire and impulse, euphoria after surfing the Internet, withdrawal reaction after getting off the Internet, and physical or psychological dependence.</p>
six	<p>Obesity: refers to the excessive accumulation of fat in the body, which makes the weight exceed a certain range. When obesity affects health or</p> <p>It is called obesity when you live and work normally.</p>

Step 2: Enter the students' answers.

Click the interface button "Student Answer" and enter the corresponding file. It is worth noting that the suffix format of each file "Student Answer" is ".xls". The first column is the label of each question, and the beginning of the second column is the student's answer. The process of inputting students' answers is shown in Figures 5 and 6. The file format is shown in Table 2.

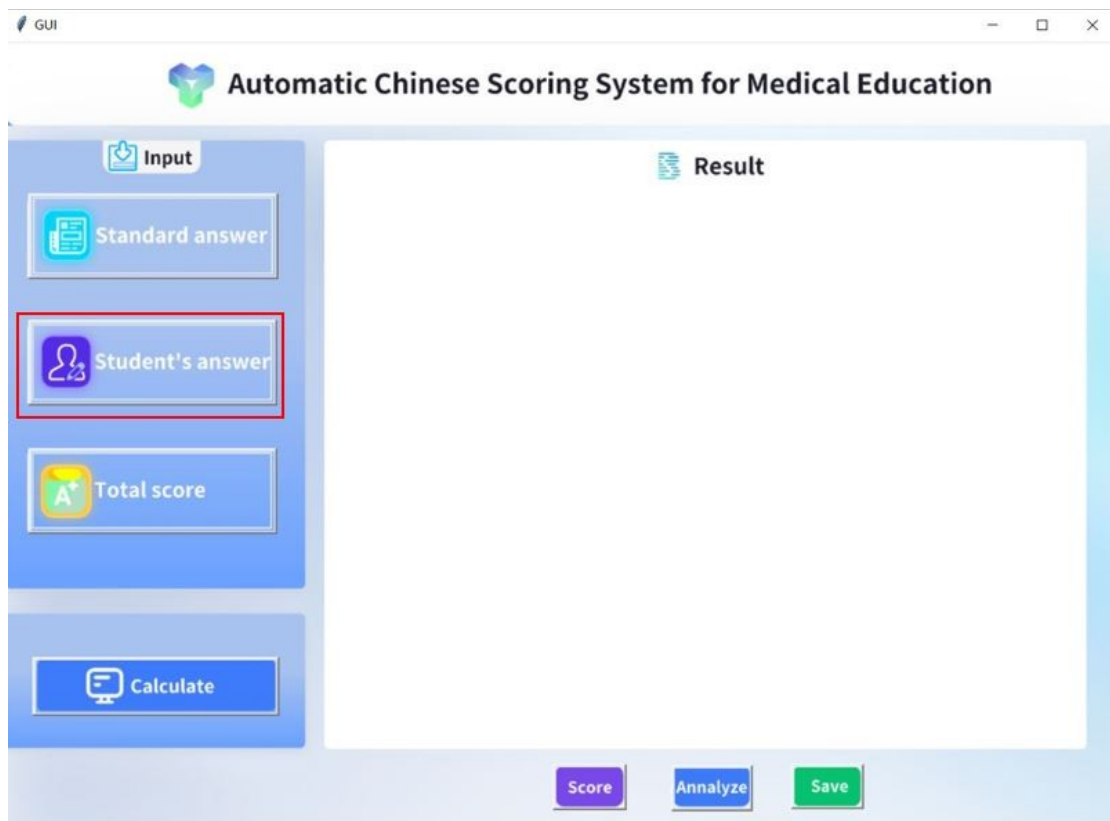


Figure 5: Click the interface button "Student's Answer"

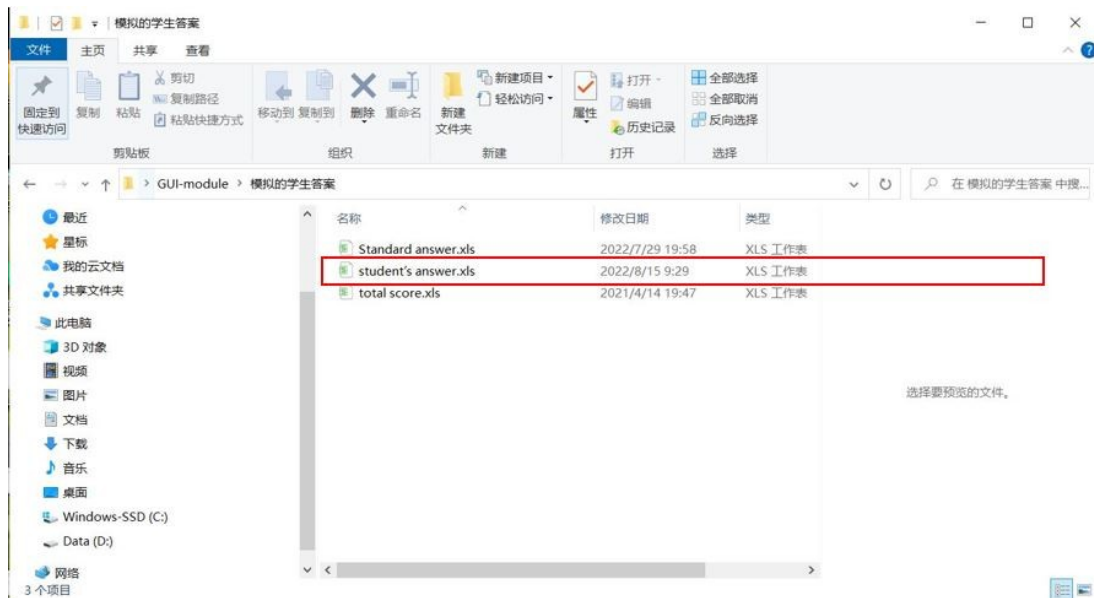


Figure 6: Input File "Student's Answer" Table 2:  
File "Student's Answer" Format

question	1631250023 jin	1632240016 jin
	Health behavior: any action related to disease prevention, health promotion, health maintenance and recovery. the number one This kind of behavior can be voluntary or may be (one) involuntary; It can be an active act directly for the purpose of health, or a passive act in compliance with laws or regulations.	Health behavior: refers to any action related to disease prevention, health promotion, health maintenance and recovery. This kind of behavior may be voluntary or involuntary, and it may be an active behavior directly aimed at health, or a passive behavior in compliance with laws or regulations.
	Self-efficacy: a person's subjective judgment on whether he can succeed in a certain achievement, which is synonymous with the sense of self-ability. According to this theory, people's behavior of injecting drugs does not strengthen themselves, but people may take the initiative to carry out that activity because they expect the effects of the behavior results.	Self-efficacy: It was put forward in 1977 by Bandura, the founder of social learning theory, from the perspective of social learning, to explain the causes of motivation in special situations.
	Drug addiction refers to the patients whose mental and physical changes are caused by the interaction between drugs and their bodies.	Drug addiction: refers to the mental and physical changes caused by the interaction between the body and drugs, and is often characterized by a compulsive desire to use drugs
three	In order to experience the excitement and comfort caused by drugs again, a certain drug is used periodically and continuously.	periodically and continuously in order to experience the mental effects of these drugs again, and sometimes to avoid the unpleasant feeling of not having drugs. There may or may not be drug resistance, but the same person may have more than one drug dependence.
four	Alcoholism refers to excessive drinking without control, which can make people lose and reduce their self-control ability to varying degrees, and commit some immoral or illegal acts.	Alcoholism: refers to excessive drinking without control, which reduces or even loses people's self-control ability in varying degrees, and carries out some immoral and illegal
	Criminal law and criminologists all over the world think that alcoholism is harmful to society, but they	
five	Internet addiction: it is the internet users who spend a long time with each other. have different views on the severity of the harm.	Internet addiction: refers to the internet users who spend a long time behaviors.
	Accustomed to being immersed in the time and space of the internet, he has a strong dependence on the internet, so	And habitually immersed in the time and space of the Internet, they have a strong dependence on the Internet, so

	that he has reached the level of obsession and is unable to extricate himself.	that they have reached the level of obsession and are hard to extricate themselves.
six	Obesity: to some extent, it is obviously overweight and the fat layer is too thick, which is the body fat, especially triglycerides. The state caused by excessive accumulation, excessive weight gain caused by excessive food intake, and pathological and physiological changes or lurks in human body.	Obesity: refers to the excessive storage of human body fat, which is characterized by the increase of fat cells or cell volume, that is, a state in which the whole body fat tissue mass increases and loses its normal proportion with other tissues.

Step 3: Enter the total score.

Click the interface button "Total Score" and enter the corresponding file. It is worth noting that the suffix format of each total score file is ".xls". What's more, the first column is the label of each question, and the second column is the full score of each question. The process of inputting the total score is shown in Figure 10 and Figure 11. The file format is shown in Table 5.

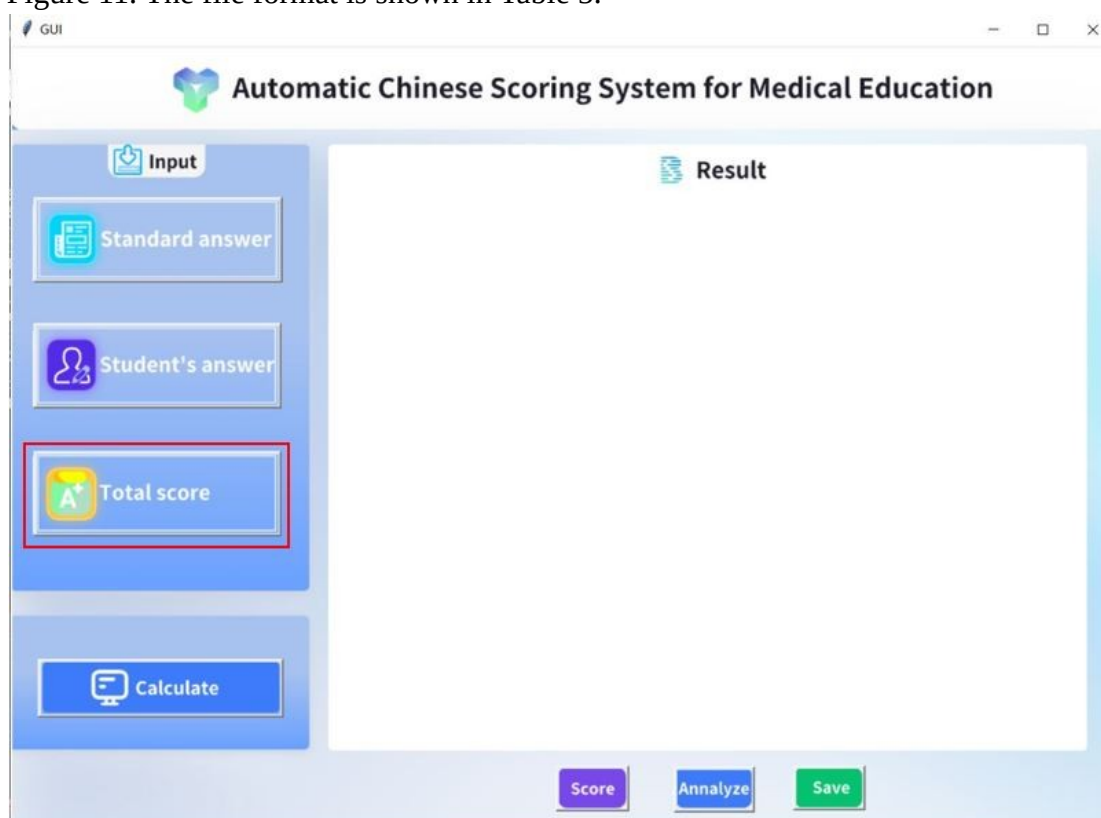


Figure 11: Click the interface button

"Total Score"



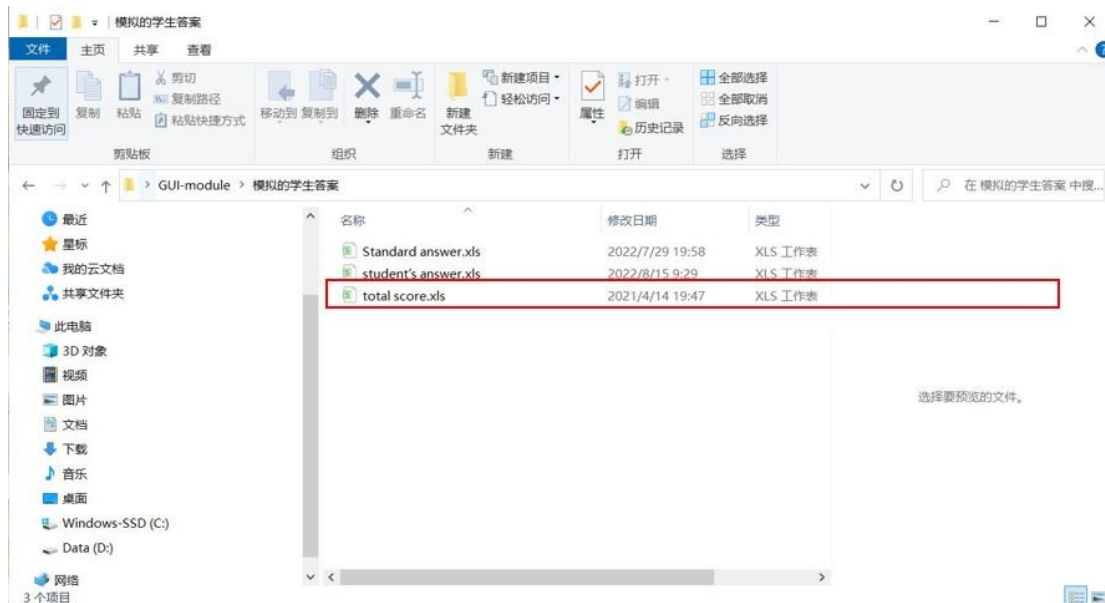


Figure 12: Total Score of Input File Table 5:  
Format of Total Score of File

question	aggregate score
the number one ( one )	10
Inject drugs	10
three	10
four	10
five	10
six	10

Step 4: Click the "Calculate" button

Click the interface button "Calculate", and then please be patient. Corresponding results will appear after calculation. , as shown in Figure 13.

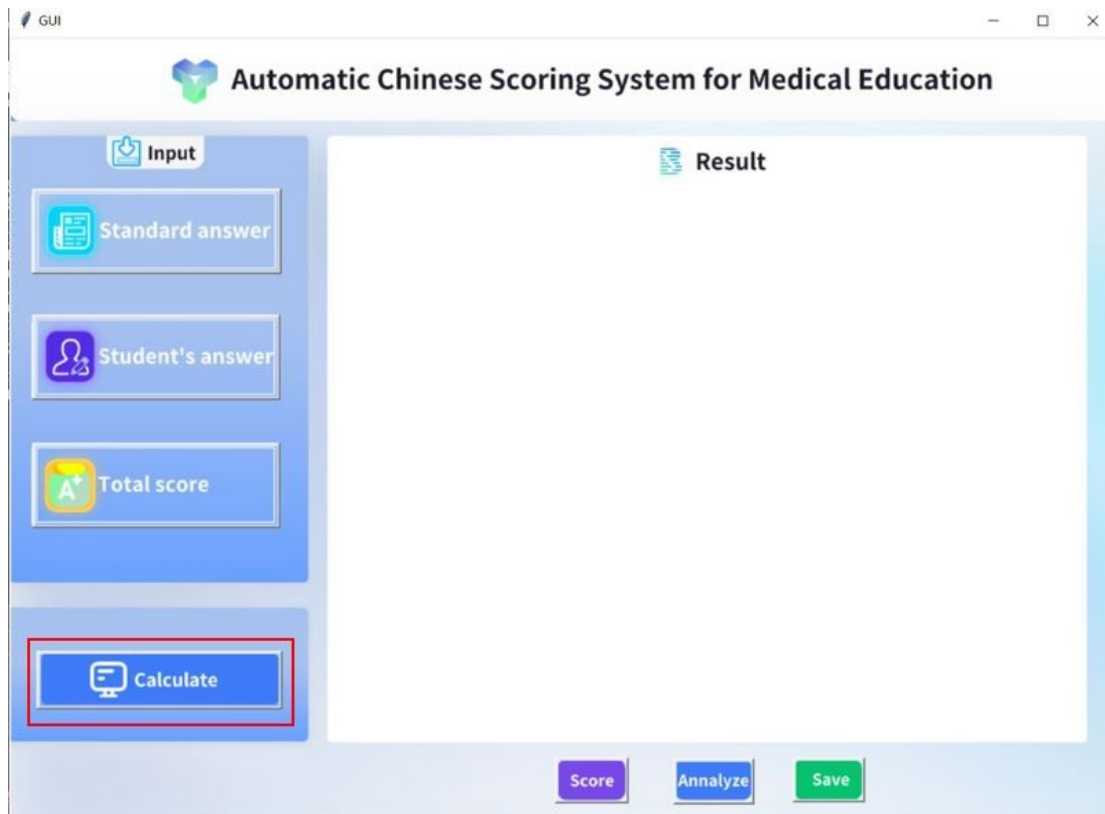


Figure 13: Click the interface button "Calculate"

## Part III Results and Command Buttons

### Show results

When calculating the grading results, the scores of students' answers will be displayed under "Results", as shown in Figure 14.

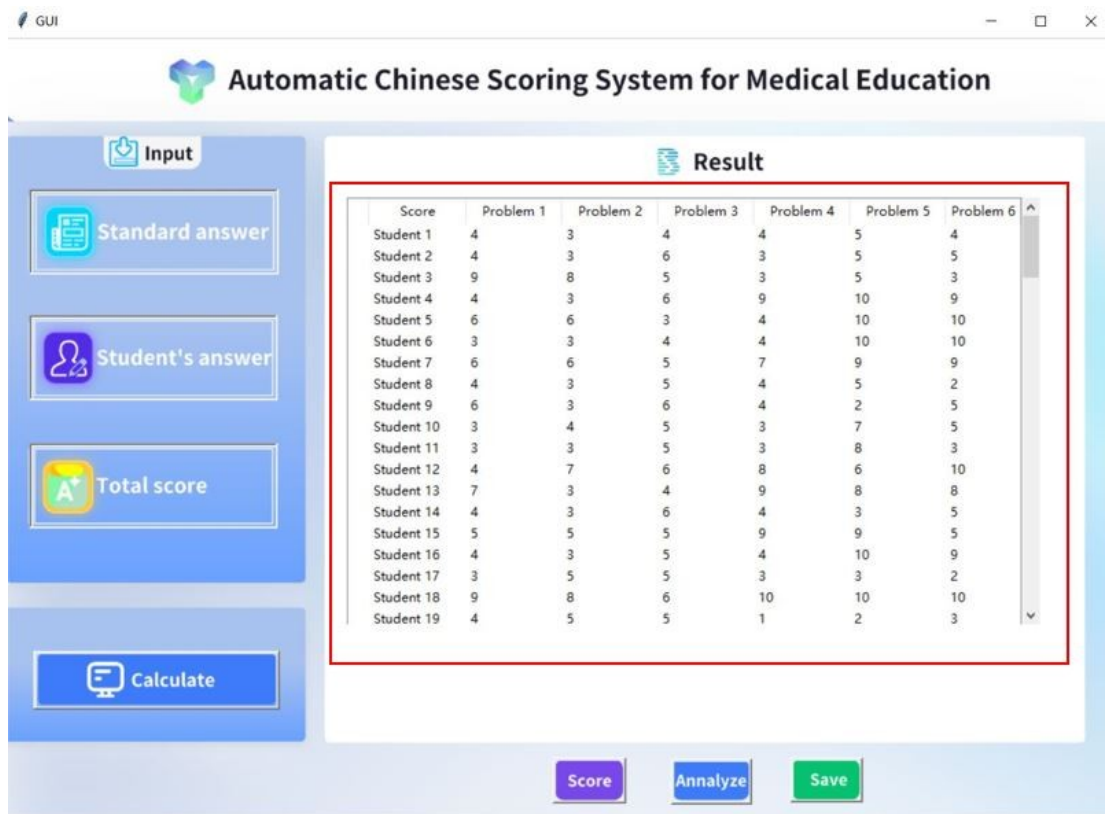


Figure 14: Display results

command button

The button "Score" enables the display result to show the score of each student's answer, as shown in Figure 15. Due to the size of the interface, only 6 questions and each student's score can be displayed in the "GUI". However, the results saved by the Save button will show the complete results.

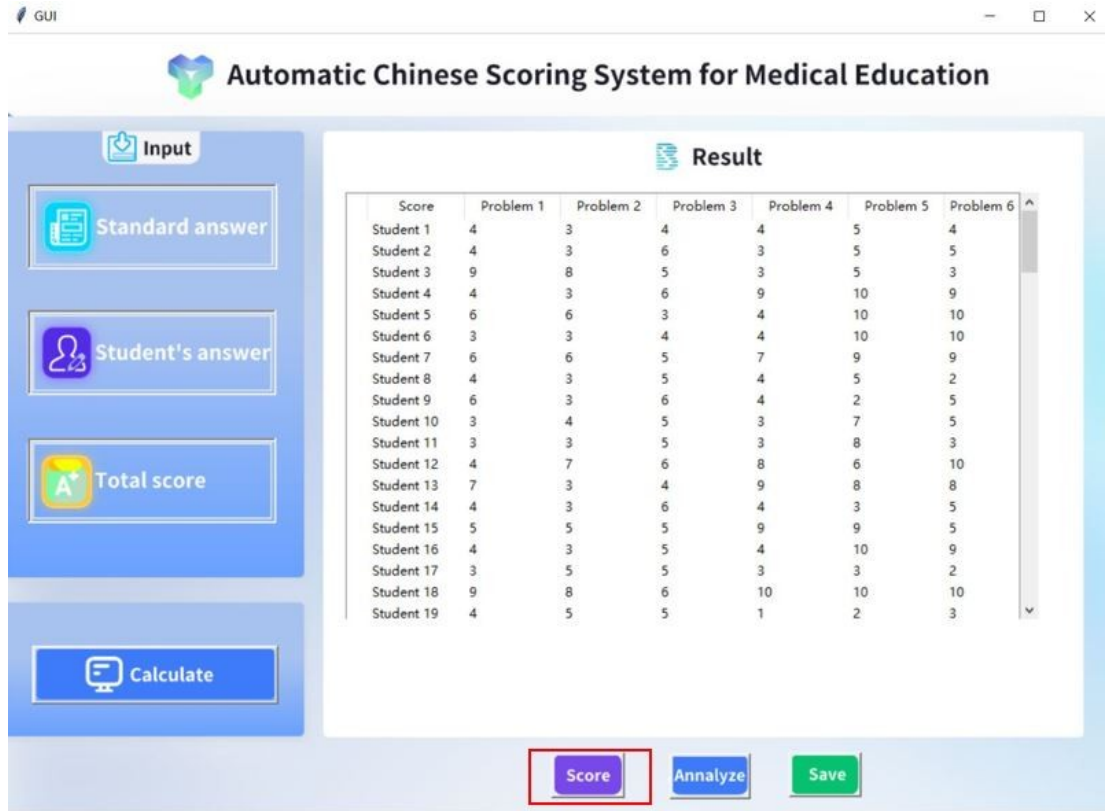


Figure 15: Function "Score"

The "Analysis" button enables the display results to show some analysis of each problem. In the GUI interface, due to the size of the interface, only the lowest score, highest score, diversity degree and difference coefficient can be displayed. As shown in figure 16. However, the results saved by the "Save" button will be analyzed more.

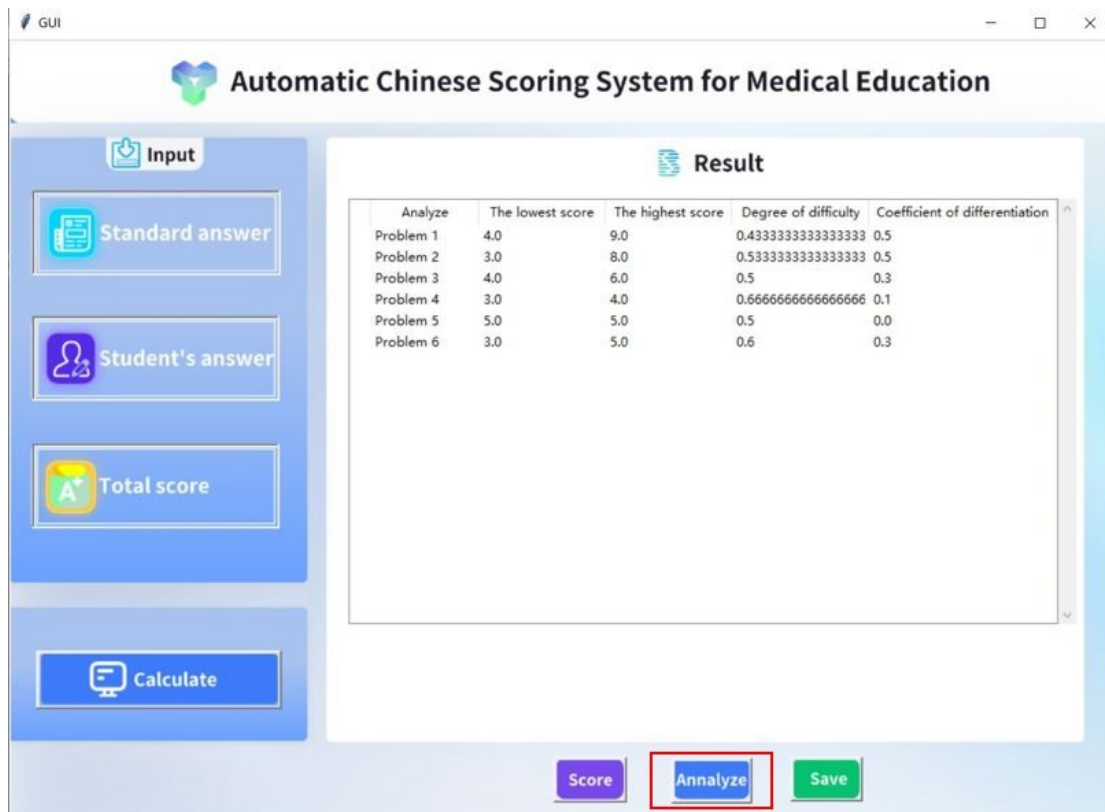


Figure 16: Function "Analysis"

"Save" button saves the result to an excel file. The document will be published in "GUI.exe" in the same directory, named "Result.xlsx". This file has two tables called "Score" and "Analysis". Save the scores of students' answers and the analysis of each question as shown in Figure 17.

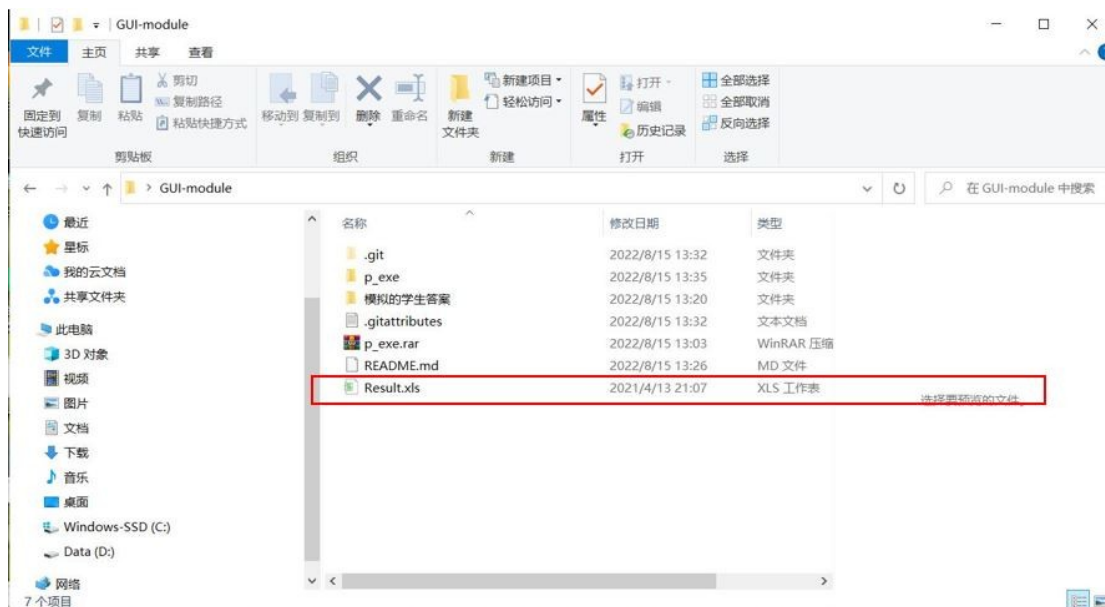


Figure 17: Results. xls