FUKIEN SECONDARY SCHOOL
S3 Final Examination (2020-2021)
Computer Literacy
(30 minutes)

Date: 16th June 2021   Name:_____

Time: 8:30a.m. - 9:00a.m.   Class: _____ No.: _____

Question Paper

Instructions to students:

1. Write your name, class and class number on both the question paper and the answer sheet.
2. Write your answers on the answer sheet.
3. Hand in the question paper and the answer sheet at the end of the examination.
4. The total mark of the paper is 100.

I.   Practical Examination (40 marks)

II.   Multiple Choice Questions (20 marks; 2 marks each)
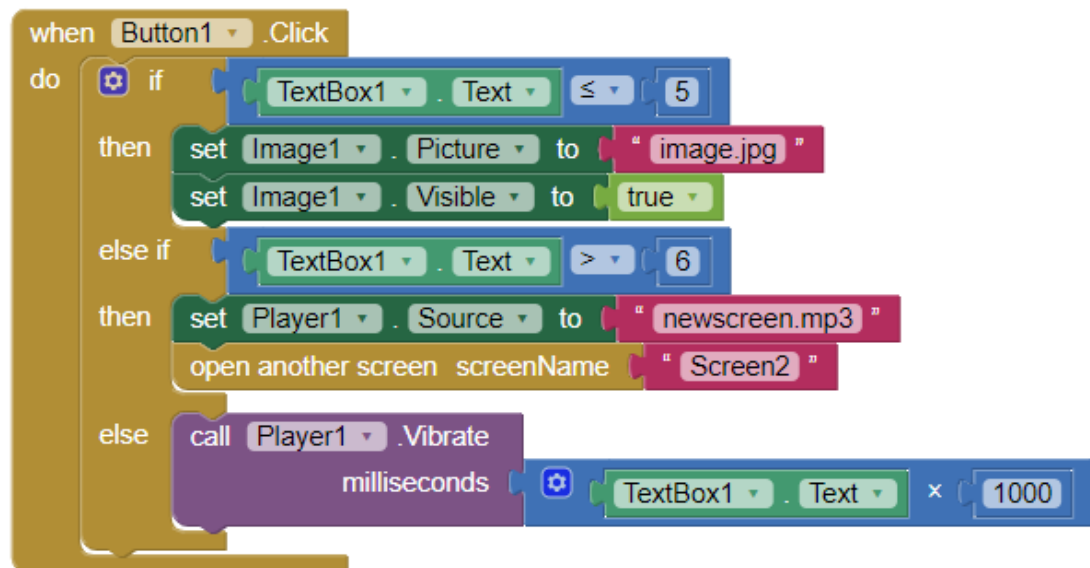
For the questions 1 to 2, refer to the blocks below:
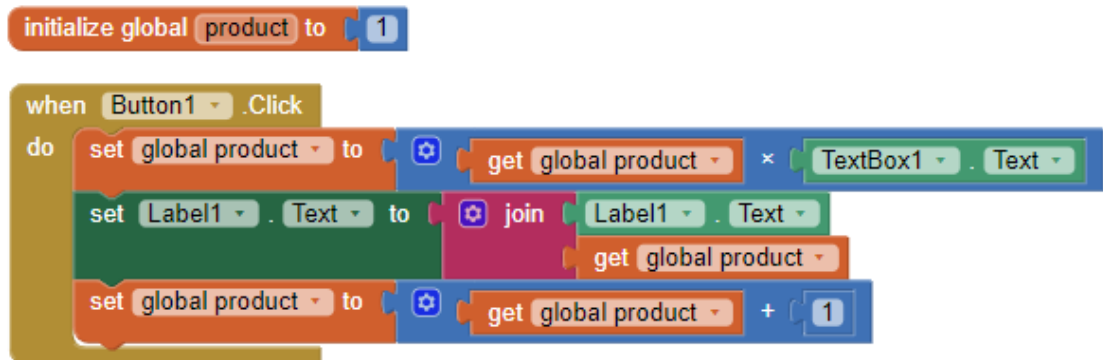
Given that the text in Textbox1 is 2, and Label1 is empty initially.

1. What is the text of Label1 after a user clicks Button1 once?

A. 0
B. 1
C. 2
D. 3

2. The user clicks Button1 once again. What is the text of Label1 now?

A. 03
B. 26
C. 19
D. 33

For the questions 3 to 5, refer to the blocks below:

3. What value should be input into Textbox1 if a user wants to show "image.jpg"?
   A. 4
   B. 6
   C. 8
   D. 10

4. Given that the text in Textbox1 is 10, what will happen if a user clicks Button1?
   A. The phone will vibrate.
   B. Screen2 will be opened and "newscreen.mp3" will be played.
   C. Screen2 will be opened but "newscreen.mp3" will not be played.
   D. "image.jpg" will be shown.

5. Given that a user inputs an integer in Textbox1, and the phone vibrates after Button1 is clicked. For how long will the vibration last?
   A. 5 milliseconds
   B. 5 seconds
   C. 6 milliseconds
   D. 6 seconds

6. In order to show a number of stars in a label, which of the following blocks should be used to concatenate the "*" characters?

   A.

   B.

   C.

   D.
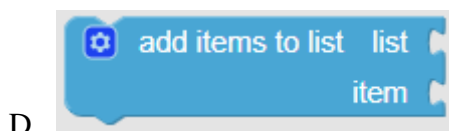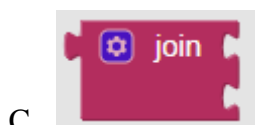
7. What is the number of stars shown on "lbl_display" after the following program segment is executed?
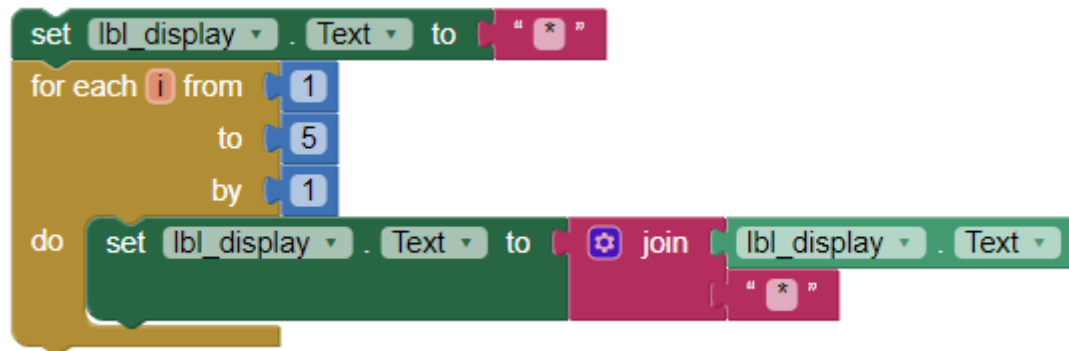
A. 4

B. 5

C. 6

D. 7

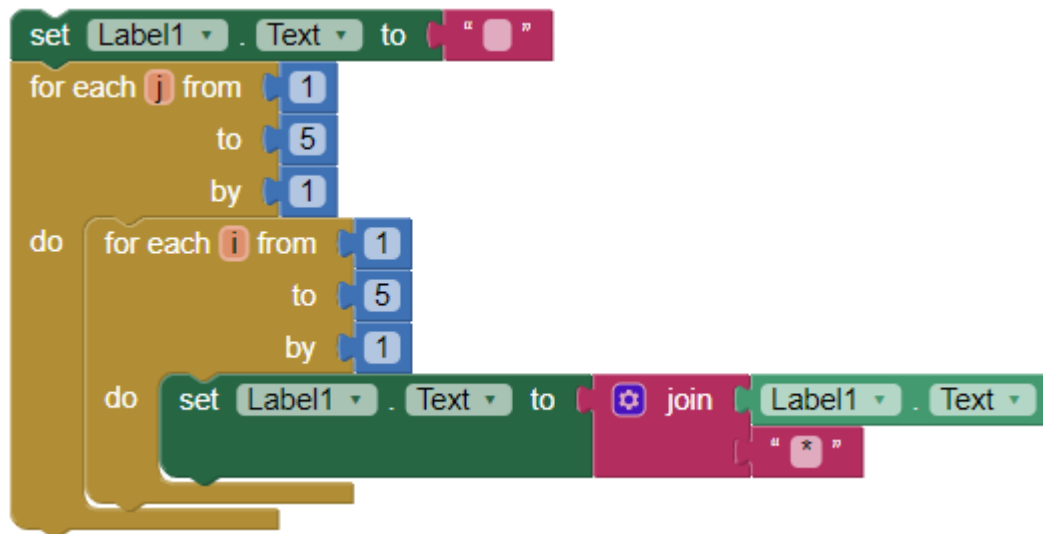8. Which of the following blocks should be used to print a new line in App Inventor 2?
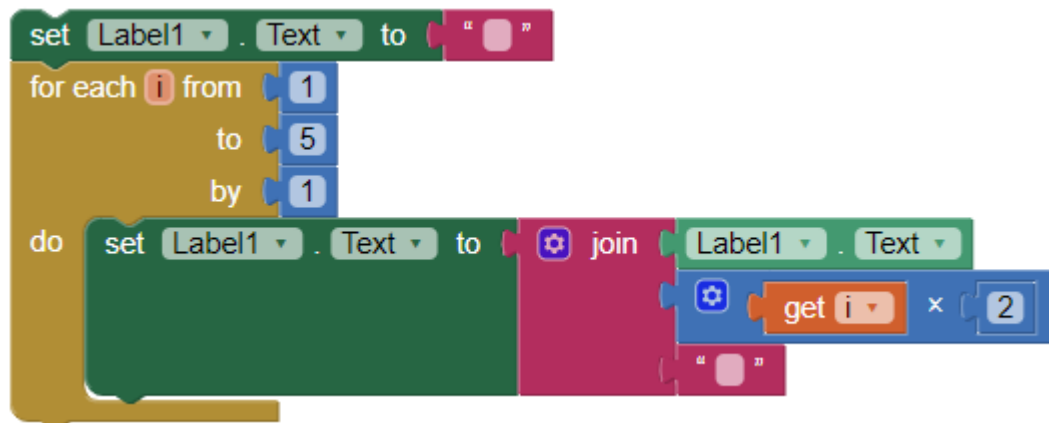
A.

B.

C.

D.

9. After the following program is executed, how many stars will be shown on Label1?

A. 5
B. 10
C. 25
D. 50

10. What will be the output shown on Label1 after executing the following program?

A. 1 1 1 1 1
B. 1 2 3 4 5
C. 1 3 5 7 9
D. 2 4 6 8 10

III.   Matching (10 marks)

Match the following program blocks with the appropriate category.

	Program Block			Category
1	initialize global [name] to		A	Control
2	[⚙] [ ] or ▾ [ ]		B	Logic
3	for each [number] from [1] to [5] by [1] do		C	Math
4	remainder of ▾ [ ] ÷ [ ]		D	Text
5	" [ ] "		E	Lists
			F	Variables

IV.   Structured Questions (30 marks)

1.   An app is designed to count the number of mouse clicks inputted by the user. The screen has the following components.

   • Label1: The accumulated count number will be shown.
   • Button1: The count number of Label1 will be increased by 1.
   • Button2: The count number of Label1 will be reset to 0.

   (a) Briefly draw the layout of the app. The display text of each component should reflect the function of that component.   (3 marks)

   (b) Fill in the blanks with correct blocks or numbers for incrementing the number of mouse clicks and resetting the counter.

   when [Button1 ▾] .Click
   do   set [Label1 ▾] . [Text ▾] to [⚙] [(i)] + [(ii)]

   when [Button2 ▾] .Click
   do   set [Label1 ▾] . [Text ▾] to [(iii)]
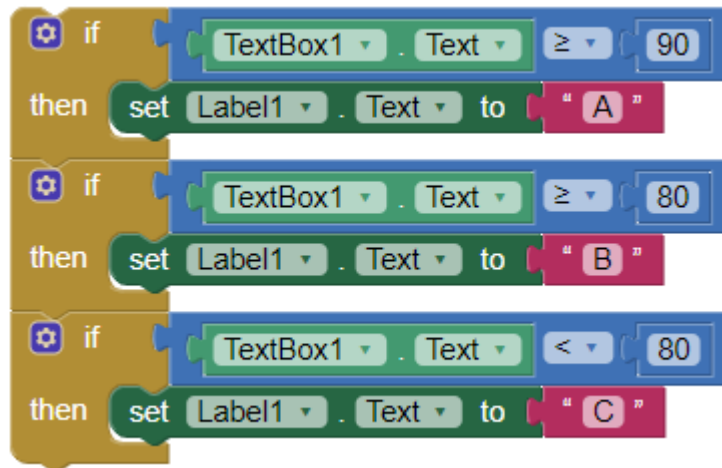
                                                                         (6 marks)

(c) We can use the following blocks so that when we click once, the
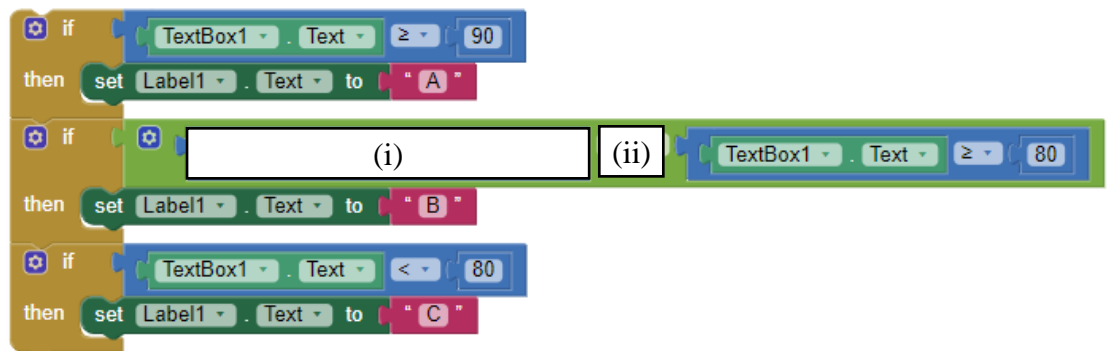computer will count twice. Fill in the blanks.

```
when Button1 ▾ .Click
do   set Label1 ▾ . Text ▾ to  ⚙  [   (i)   ] + [ (ii) ]
```

(3 marks)

2.   The following blocks are designed to calculate the grade of a student.

```
⚙ if    TextBox1 ▾ . Text ▾  ≥ ▾  90
then   set Label1 ▾ . Text ▾ to  " A "

⚙ if    TextBox1 ▾ . Text ▾  ≥ ▾  80
then   set Label1 ▾ . Text ▾ to  " B "

⚙ if    TextBox1 ▾ . Text ▾  < ▾  80
then   set Label1 ▾ . Text ▾ to  " C "
```

(a) What will be the grade if the student's mark is 100?   (2 marks)

(b) There is an error in the above program. The corrected program is shown
below. Fill in the blanks.

```
⚙ if    TextBox1 ▾ . Text ▾  ≥ ▾  90
then   set Label1 ▾ . Text ▾ to  " A "

⚙ if   ⚙ [   (i)   ] (ii)  TextBox1 ▾ . Text ▾  ≥ ▾  80
then   set Label1 ▾ . Text ▾ to  " B "

⚙ if    TextBox1 ▾ . Text ▾  < ▾  80
then   set Label1 ▾ . Text ▾ to  " C "
```
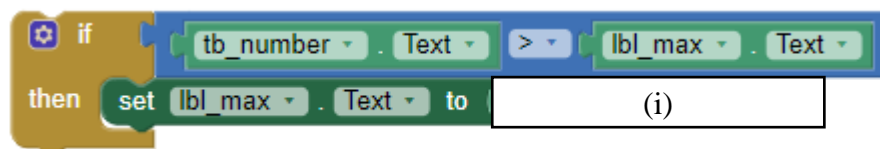
(4 marks)

3.   The following blocks are designed to display
```
*****
*****
*****
*****
*****
```
. Fill in the blanks.

```
set  Label1 . Text  to  "  "
for each  i  from  1
            to  (a)
            by  1
do   set  Label1 . Text  to  ⚙ join  Label1 . Text
                                      " * "
     ⚙ if  remainder of  get (b)  ÷  (c)  =  (d)
     then  set  Label1 . Text  to  ⚙ join  Label1 . Text
                                           " \n "
```
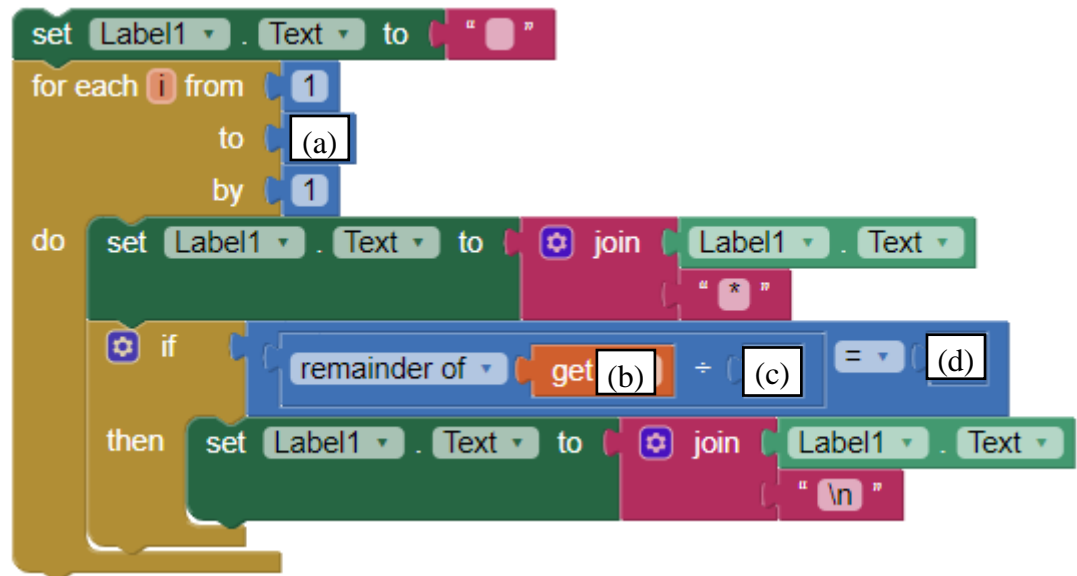
(8 marks)

4.   The following blocks are designed to find the maximum number input by a user.

```
⚙ if  tb_number . Text  >  lbl_max . Text
then  set  lbl_max . Text  to  (i)
```

(a)   Fill in the blank.   (2 marks)

(b)   Assume the number to be input is from 0 to 100. We need to set an initial value for lbl_max.Text. Suggest an initial value.   (2 marks)

END OF PAPER