UTHM
Universiti Tun Hussein Onn Malaysia

UNIVERSITI TUN HUSSEIN ONN MALAYSIA

FINAL EXAMINATION
SEMESTER I
SESSION 2016/2017

COURSE NAME	:	COMPUTER PROGRAMMING
COURSE CODE	:	BIT 10303
PROGRAMME CODE	:	BIT
EXAMINATION DATE	:	DECEMBER 2016 / JANUARY 2017
DURATION	:	3 HOURS
INSTRUCTION	:	A) ANSWER **ALL** QUESTIONS
		B) PLEASE WRITE YOUR ANSWERS IN THIS QUESTION BOOKLET

THIS QUESTION PAPER CONSISTS OF **TEN (10)** PAGES

Q1 (a) How does a function name differ from a variable name?

(2 marks)

Answer:

(b) What must appear inside a function header, besides the parameters passed to it?

(2 marks)

Answer:

(c) When should a global variable pass to a function?

(2 marks)

Answer:

(d) Identify the error for program in **Figure Q1(d)**. Explain the error and rewrite its corresponding correct statement.

(9 marks)

Answer:

```
1.    #include <stdio.h> ;
2.
3.    void print_msg(void);
4.    int main(){
5.    printf_msg("This is a message to print");
6.    return 0; }
7.
8.    void print_msg(void){
9.    puts("This is a message to print");
10.   return 0; }
```

Figure Q1(d)

(e) Write a function that receives two integer values as parameters and returns the maximum number between the two values.

(10 marks)

Answer:

Q2 Answer **Q2(a)** and **Q2(b)** based on case study in **Figure Q2**.

(a) Give **TWO (2)** variables with data types.

(5 marks)

Answer:

A BFF Design sells **five** (5) different types of shoes namely as shoes 1, shoes 2, shoes 3, shoes 4 and shoes 5. The supervisor need to keep daily sales of each type of shoes and total daily sales using the program that you are asked to develop. In your program should able read the sales for each type of shoes, display the sales for each type of shoes and calculate the total daily sales with two floating numbers.

Here is an example of an output:

```
/*supervisor will input the total sales for each shoes
of sales*/

Shoes 1 Sales: RM 250.50
Shoes 2 Sales: RM 100.70
Shoes 3 Sales: RM 350.50
Shoes 4 Sales: RM 400.30
Shoes 5 Sales: RM 180.00

Sales of each type of shoes

Sales for Shoes 1: RM 250.50
Sales for Shoes 2: RM 100.70
Sales for Shoes 3: RM 350.50
Sales for Shoes 4: RM 400.30
Sales for Shoes 5: RM 180.00

Total Daily Sales : RM 1282.00
```


Figure Q2

(b) Write a complete program based on case study in **Figure Q2**. Make sure the program consist of the following requirements;

i. Declare an array to store input sales from the supervisor.
ii. Read the input sales into the array using `for...loop`.
iii. Calculate total daily sales using the values in the array.
iv. Display daily sales for each shoe.

(20 marks)

Answer:

Q3 (a) What is the difference between an array and a structure?

(3 marks)

Answer:

(b) Write a structure for a video store that can be used in a program that tracks its video tape inventory. Make sure the structure includes the `tape title`, `the length of the tape` (in minutes), `the cost of the tape`, `the rental price of the tape`, and `the date of the movie release`.

(12 marks)

Answer:

(c) Based on the answer in **Q3(a)**, write a program segment to allow user to enter the input and print the data to the screen for each field of the structure.

(10 marks)

Answer:

Q4 Answer **Q4(a) – Q4(e)** based on **Figures Q4(a)** and **Q4(b)**.

```
int main()
{
      int age,count;
      float salary;
      char name[30];
      FILE *fRead, *fWrite;

      fRead=fopen("Input.txt","r");
      fWrite=fopen("Output.txt","w");

      for (count=0;count<3;count++){
      fscanf(fRead,"%s",&name);
      fscanf(fRead,"%d",&age) ;
      fscanf(fRead,"%f",&salary)     ;

      fprintf(fWrite,"\nName: %s\nAge: %d \nSalary:
RM%.3f\n",name, age, salary);
      }

      fclose(fRead);
      fclose(fWrite); }
```

Figure Q4(a)

```
Norman
25
3770
Tasya
30
2500
Suraya
23
3300.00000
```

Figure Q4(b)

(a) Determine the output by using data in **Figure Q4(b)**.

(10 marks)

Answer:

(b) Add a code segment to the program in **Figure Q4(a)** to display output in a text file called `Output.txt`.

(9 marks)

Answer:

(c) What will happen when access mode is `"w"` and the file does not exist?

(2 marks)

Answer:

(d) What will happen when access mode is `"a"` and the file already have the data?

(2 marks)

Answer:

(e) What is the advantage of holding data in a file?

(2 marks)

Answer:

- END OF QUESTION -