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UNIVERSITI TUN HUSSEIN ONN MALAYSIA

**FINAL EXAMINATION
SEMESTER II
SESSION 2016/2017**

TERBUKA

COURSE NAME : COMPUTER PROGRAMMING
COURSE CODE : BIT 10303
PROGRAMME CODE : BIT
EXAMINATION DATE : JUNE 2017
DURATION : 2 HOURS AND 30 MINUTES
INSTRUCTIONS : A) ANSWER ALL QUESTIONS
B) PLEASE WRITE YOUR
ANSWERS IN THIS QUESTION
BOOKLET

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

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SECTION A

Instruction: Circle the **BEST** answer.

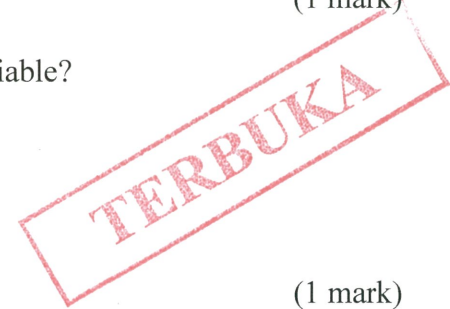
Q1 What is pointer?

- A. A keyword used to create variables.
- B. A variable that stores address of an instruction.
- C. A variable that stores address of other variable.
- D. All of above.

(1 mark)

Q2 What data type of address stored in the pointer variable?

- A. Integer
- B. Floating
- C. Array
- D. Character



(1 mark)

Q3 Give the right statement if the following statements are combined into one.

```
char *p;  
p = (char*) malloc(100);
```

- A. `char p = *malloc(100);`
- B. `char *p = (char)malloc(100);`
- C. `char *p = (char*)malloc(100);`
- D. `char p = (char*) (malloc*) (100);`

(1 mark)

Q4 Point out the error in the following statements.

```
int main() {  
    int a=10;  
    void f();  
    a=f();  
    printf("%d\n", a)  
    return 0; }
```

```
void f() {  
    printf("Hi"); }
```

- A. Error: Not allowed assignment.
- B. Error: Doesn't print anything.
- C. No error.
- D. None of above.

(1 mark)

Q5 Which of the following is correct syntax to send an array as parameter to function?

- A. `func(array);`
- B. `func(*array);`
- C. `func(array[size]);`
- D. None of above.

(1 mark)

Q6 What is the output of the following statements?

```
int x =5;
void f();
int main() {
    int x = 9;
    f();
    printf("%d",x);}

void f() {
    x=4; }
```

- A. 5
- B. 4
- C. 9
- D. None of above.

(1 mark)

Q7 Which function is not called in the following statements?

```
void first()
{ printf("first"); }
void second()
{ first(); }
void third()
{second(); }
int main()
{ third(); }
```

- A. `first()`
- B. `second()`
- C. `third()`
- D. None of above.

(1 mark)

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Q8 Which of the following operator is used to access data members of the structure through the pointer variable?

- A. \$
- B. &
- C. *
- D. ->

(1 mark)

Q9 Which of the following operator is used to get value at address stored in a pointer variable?

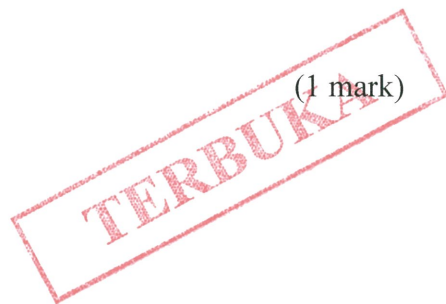
- A. \$
- B. &
- C. *
- D. ->

(1 mark)

Q10 Which of the following operator is used to assign address of variable to pointer variable?

- A. \$
- B. &
- C. *
- D. ->

(1 mark)



SECTION B

Instruction: Answer **ALL** questions.

- Q11** Write two `struct` statements to store **FIVE** (5) data for a bun: bun name, the number of bun, the price cost of the bun, the sales price of the bun, and the bake date. The bake date must be another `struct` consisting on day, month and year. (20 marks)

Answer:



Q12 State the meaning of the following functions in file processing:

(a) `fopen()`

(2 marks)

Answer:

(b) `fclose()`

(2 marks)

Answer:

(c) `fscanf()`

(2 marks)

Answer:



(d) `fprintf()`

(2 marks)

Answer:

(e) Accessing file mode "a"

(2 marks)

Answer:

(f) Accessing file mode "r"

(2 marks)

Answer:

Q13 Questions **Q13(a)** – **Q13(d)** are based on **Figure Q13 (a)** and **Q13 (b)**.

NewBun Bakery (M) Sdn. Bhd is a bakery sales a bun as shown in Table 1. The bakery needs a payable system that able to calculate the total price need to pay by the customer according to type of bun and price.

Table 1: Bun's Price

List of bun	Price (RM)
Coffee	3.50
Sardine	2.50
Sausage	2.00
Cheese	3.20
Butter	3.00

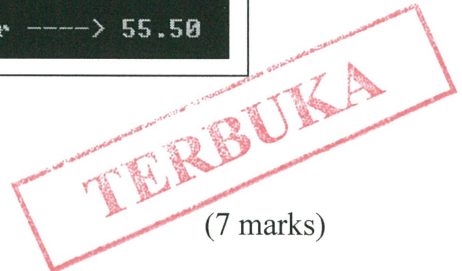
Figure Q13 (a)

```

Enter a number of bun :
Coffee : 2
Sardine : 1
Sausage : 0
Cheese : 5
Butter : 10

List of buns
Bun      Quantity      Price
Coffee   2              7.00
Sardine  1              2.50
Sausage  0              0.00
Cheese   5             16.00
Butter   10             30.00
Total amount need to pay by customer ----> 55.50
    
```

Figure Q13 (b)



(a) Specify the problem requirements.

(7 marks)

Answer:

Problem:	
Data:	
Solution	

(b) Determine the input, process and output.

(11 marks)

Answer:

Input	Process	Output

(c) Write the pseudo code for answer in Q13(b).

(15 marks)

Answer:

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- (d) Write a complete program for answer in **Q13(c)**. Use an array to:
- ask a user to input a number of bun for each type of bun,
 - read the input from user of each type of bun,
 - calculate the total price for each bun, and
 - display the a list of bun with total price for each bun and grand total for all bun.

Your program should produce the output as shown in **Figure Q13(b)**.

(25 marks)

Answer:



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- END OF QUESTION -