



UTHM

Universiti Tun Hussein Onn Malaysia

UNIVERSITI TUN HUSSEIN ONN MALAYSIA

**FINAL EXAMINATION
SEMESTER I
SESSION 2017/2018**

COURSE NAME : COMPUTER PROGRAMMING
COURSE CODE : BIT 10303
PROGRAMME CODE : BIT
EXAMINATION DATE : DECEMBER 2017 / JANUARY 2018
DURATION : 3 HOURS
INSTRUCTION : A) ANSWER ALL QUESTIONS
B) PLEASE WRITE YOUR
ANSWERS IN THIS QUESTION
BOOKLET

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THIS QUESTION PAPER CONSISTS OF **TWELVE (12)** PAGES

Q1 (a) State each of the following identifier is **VALID** or **INVALID**.

(i) Integer (1 mark)

Answer: _____

(ii) `_6sixMan` (1 mark)

Answer: _____

(iii) `uthm.` (1 mark)

Answer: _____

(iv) `price*items` (1 mark)

Answer: _____

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(b) State each of the following statement is **TRUE** or **FALSE**.

(i) `i++` is similar to `i = i + 1` (1 mark)

Answer: _____

(ii) The placeholder for a string data type is `%c`. (1 mark)

Answer: _____

(iii) The process of correcting errors is called compiling. (1 mark)

Answer: _____

(iv) `iPtr = &i`, mean that `iPtr` get address of `i`. (1 mark)

Answer: _____

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Q2 Write a single statement for the following nature language statements.

(a) Assign value 0.5 to the variable `bonus`.

(2 mark)

Answer:

(b) Declare a function `land` that receives two integers' `height` and `width`, and returns an integer `area`.

(2 mark)

Answer:

(c) Read an integer number from the keyboard and store it in the variable `num`. Assume that the variable has been declared.

(2 marks)

Answer:

(d) Multiply 50 to the variable `discount` by using `*=` operator.

(2 marks)

Answer:



Q3 Determine the output(s) of the following code segments.

```
#include<stdio.h>
#include<conio.h>

void main()
{
clrscr();
int total = 3;
int number;
for (number = 2; number<9; number += 2)
{
total+= number;
printf ("%d \t",total);
}
printf ("\n %d",number );
getch();
}
```

(8 marks)

Answer:

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Q4 Answer the following questions based on the given case study.

As a Software Engineer in Sound Department, you have requested to develop C program in order to associate noise loudness measured in decibel with the effect of noise. **Table 1** shows the relationship between noise levels and human perception of noises.

Table 1: The Scale of Noise Loudness Categories

Loudness in Decibels (db)	Noise Categories
50 or lower	Quiet for human
From 51 to 70	Intrusive for human
From 71 to 90	Annoying for human
From 91 to 110	Very annoying for human
Over 110	Uncomfortable for human

(a) Write a pseudo-code for detection of noise categories as stated in **Table 1**. (10 marks)

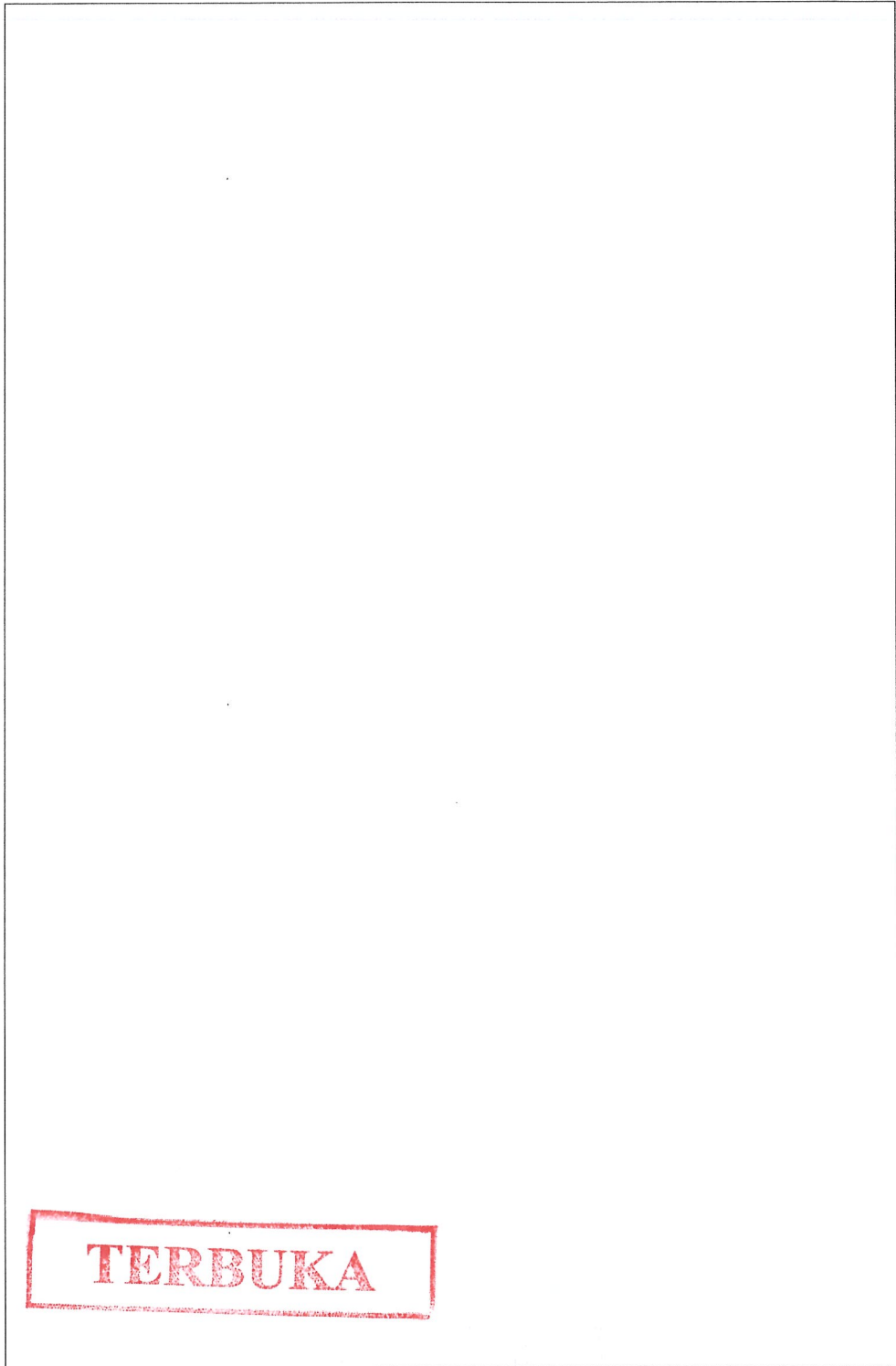
Answer:

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- (b) Write a complete program using C Programming Language to apply detection of noise categories.

(15 marks)

Answer:



A large empty rectangular box with a black border, intended for the student to write their answer. At the bottom left of this box, there is a red rectangular stamp with the word "TERBUKA" written in red capital letters.

- Q5** Write a complete C statement in **Figure Q5 (a)** to produce output as in **Figure Q5 (b)**.

```
#include <stdio.h>
#include <conio.h>
void cetak(int x);
void barisBaru(int x);

int main()
{
int no1 = 8, no2 = 9, no3 = 3;
cetak(no1);
}

void cetak(int x)
{

}

void barisBaru(int x)
{

}
```

Figure Q5 (a)

```
89
3
```

Figure Q5 (b)

(16 marks)

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Answer:

```
#include <stdio.h>
#include <conio.h>
void cetak(int x);
void barisBaru();

int main()
{
int no1 = 8, no2 = 9, no3 = 3;
cetak(no1);

}

void cetak(int x)
{

}

void barisBaru()
{

}
```

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Q6 Answer the following questions based on the given case study.

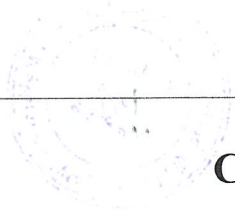
Forest Agricultural Private Limited is one of the multinational company which provide land surveyor and modern agricultural development with more than 50 dedicated staff. Most of the staff always travel and work outside main office. Company management been decided that calculation of mileage reimbursement for a staff in a company at a rate of RM0.70 per kilometer.

(a) Write a pseudo-code to calculate the mileage reimbursement.

(5 marks)

Answer:

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- (b) Write a complete C program that permits interaction with user in the following example.

```
Enter beginning odometer reading => 1200.7  
Enter ending odometer =>1595.4  
You have travelled 394.7.  
Your total reimbursement is 276.29
```

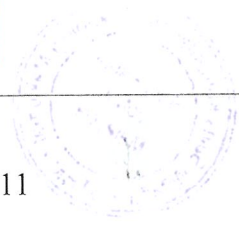
The program should include these two function calls,

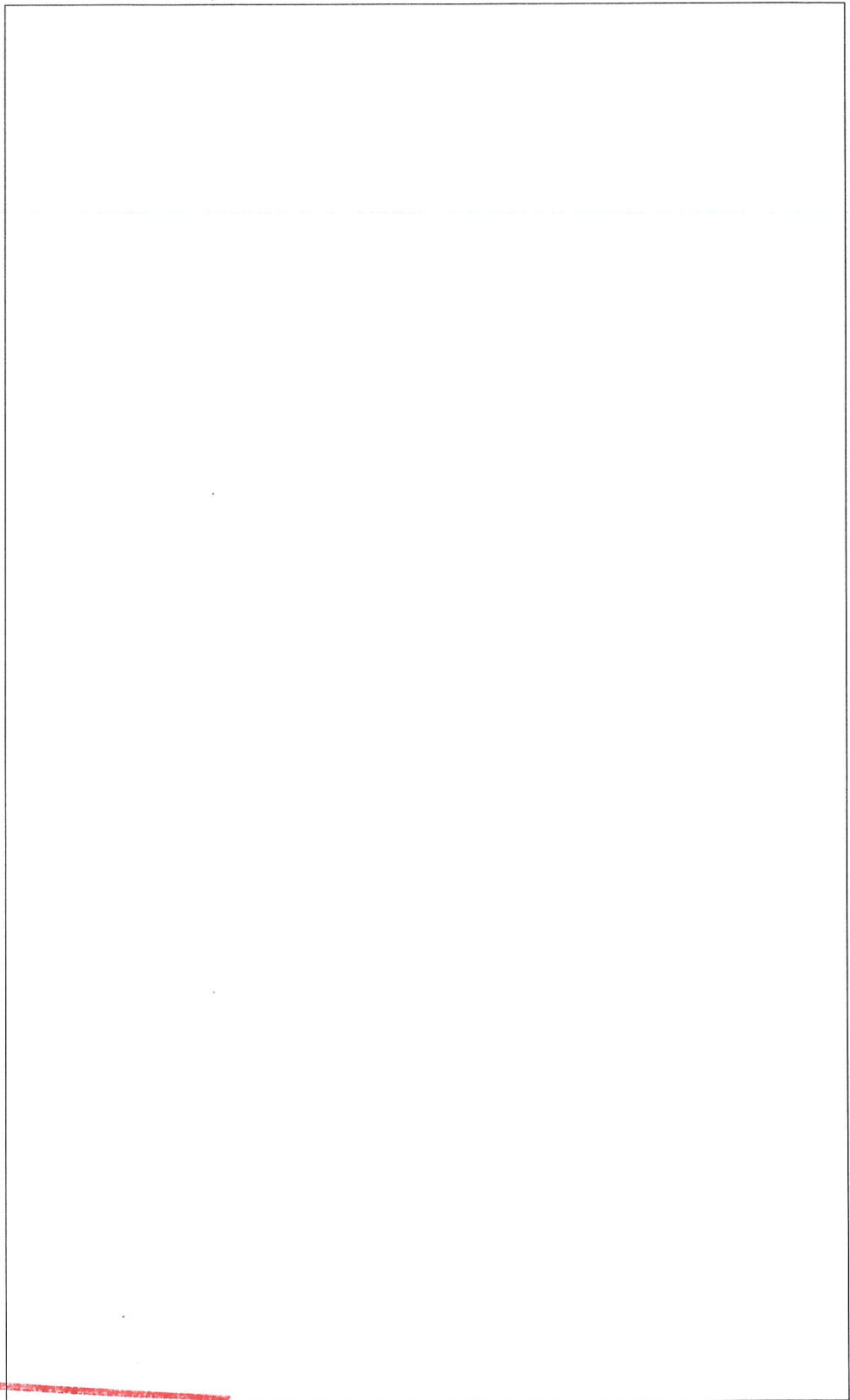
```
calculatedistance (begin, ending);  
calculatereimbursement (milesKm);
```

(30 marks)

Answer:

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- END OF QUESTION -

