UNIVERSITI MALAYA
UNIVERSITY OF MALAYA

PEPERIKSAAN IJAZAH SARJANA MUDA SAINS KOMPUTER /
IJAZAH SARJANA MUDA TEKNOLOGI MAKLUMAT
EXAMINATION FOR THE DEGREE OF BACHELOR OF COMPUTER SCIENCE /
BACHELOR OF INFORMATION TECHNOLOGY

SESI AKADEMIK 2015/2016 : SEMESTER I
ACADEMIC SESSION 2015/2016 : SEMESTER I

WIX1002 : ASAS-ASAS PENGATURCARAAN
FUNDAMENTALS OF PROGRAMMING

MID SEMESTER TEST

26 October 2015 Masa: 2 jam
26 October 2015 *Time: 2 hours*

ARAHAN KEPADA CALON :
INSTRUCTIONS TO CANDIDATE:

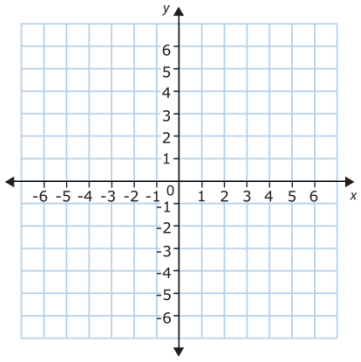
Jawab **SEMUA** soalan (20 markah).
*Answer **ALL** questions (20 marks).*

(Kertas soalan ini mengandungi 2 soalan dalam 3 halaman yang dicetak)

(This question paper consists of 2 questions on 3 printed pages)

1. Tulis satu aturcara Java untuk mengesan koordinat objek selepas urutan pergerakan. Gambarajah di bawah menunjukkan sistem koordinat yang digunakan. Aturcara tersebut akan meminta pengguna untuk memasukkan koordinat X dan Y dan juga pergerakan. Pergerakan tersebut diwakili oleh L (Kiri), R (Kanan), U (Atas) dan D (Bawah). (Salinkan fail jawapan **Main.java** ke dalam direktori akaun peperiksaan anda dan namakan fail tersebut sebagai **[matricNumberQ1.java]**, contoh: **WEK150001Q1.java**.)

   Write a Java program to track the coordinate of an object after a sequence of moves. Figure below shows the system coordinate used. The program will prompt the user to enter the X and Y coordinates as well as the moves. The move is represented by L (Left), R (Right), U (Up) and D (Down). (Copy the **Main.java** answers file to your exam account directory and rename it as **[matricNumberQ1.java]**, example: **WEK150001Q1.java**)



   Example Output:

```
Enter the coordinate X and Y: 3 5
Enter the move: RURR
Initial Coordinate (3,5)
Final Coordinate (6,6)

Enter the coordinate X and Y: 10 2
Enter the move: DDLLLDRLL
Initial Coordinate (10,2)
Final Coordinate (6,-1)

Enter the coordinate X and Y: 4 7
Enter the move: LLURLLLDDDD
Initial Coordinate (4,7)
Final Coordinate (0,4)
```

(10 markah/*marks*)

2. Ahmad adalah seorang penjual durian yang popular di KL. Tulis satu aturcara Java yang mengira jumlah jualan bagi Ahmad berdasarkan jadual di bawah. Aturcara tersebut akan memaparkan jumlah jualan dalam dua tempat perpuluhan. Aturcara tersebut akan ditamatkan jika pengguna memasukkan Quit. (Salinkan fail jawapan **Main.java** ke dalam direktori akaun peperiksaan anda dan namakan fail tersebut sebagai **[matricNumberQ2.java]**, contoh: **WEK100001Q2.java**.)

   Ahmad is a popular durian seller in KL. Write a Java program that calculates the total sales for Ahmad based on the table below. The program will display the total sales in two decimal places. The program will terminate if the user enter Quit. (Copy the **Main.java** answers file to your exam account directory and rename it as [matricNumberQ2.java], example: **WEK150001Q2**.java)

Total Sales

Type of Durian	Price Per Kg (RM)	Sales (Kg)
MK	25	262.8
HL	22	325.6
D24	20	204.5
UM	18	121.5

Example Output:

```
Enter the type of durian [Quit] to terminate: MK
Enter the sales in kg: 262.8
Enter the type of durian [Quit] to terminate: HL
Enter the sales in kg: 325.6
Enter the type of durian [Quit] to terminate: D24
Enter the sales in kg: 204.5
Enter the type of durian [Quit] to terminate: UM
Enter the sales in kg: 121.5
Enter the type of durian [Quit] to terminate: Quit
Total Sales : 20010.20
```

(10 markah/*marks*)

TAMAT