

## Assignment 2 Marking Scheme

1. (a) (10 marks)  $(2+1024) * 4 \text{ KB} = 4104\text{KB} = 4202496\text{B}$

(b) (10 marks for each)

- (i) [15, 35, 37, 40]
- (ii) [35, 37, 40, 45, 51, 58, 66, 71]
- (iii) [35, 37, 40, 45, 51, 58, 66, 71, 75, 88]
- (iv) [6, 15, 35, 37, 40, 45, 51, 58]

2. (a) (Each one is 6 marks, total 30 marks)

**Data block 0:** (6 marks)

|       |    |
|-------|----|
| .     | 0  |
| ..    | 0  |
| dir1  | 1  |
| dir3  | 3  |
| dir4  | 4  |
| file3 | 16 |

**Data block 1:** (6 marks)

|      |   |
|------|---|
| .    | 1 |
| ..   | 0 |
| dir2 | 2 |

**Data block 5:** (6 marks)

|    |   |
|----|---|
| .  | 5 |
| .. | 3 |

**Data block 8:** (6 marks)

|       |    |
|-------|----|
| .     | 8  |
| ..    | 2  |
| file1 | 14 |
| dir11 | 11 |
| dir12 | 12 |

**Data block 10:** (6 marks)

|       |    |
|-------|----|
| .     | 10 |
| ..    | 6  |
| dir13 | 13 |

(b) (Total 20 marks, each pair is 4 marks)

|                            |           |
|----------------------------|-----------|
| inode 0 -> data block 0    | (4 marks) |
| -> inode 1 -> data block 1 | (4 marks) |
| -> inode 2 -> data block 2 | (4 marks) |

-> inode 8 -> data block 8 (4 marks)

-> inode 14 (4 marks)