



Block II Examination March 2017 Intake
Higher Diploma in Science in Data Analytics
August 2017

Module Code: B8IT116

Module Title: Operating Systems and Networks

Examiner: Paul Laird

Moderator: Dr Shazia A Afzal

External Examiner: Dr Faheem Bukhatwa

Date: 2 August 2017

Time: 14:00

INSTRUCTIONS TO CANDIDATES

1. TIME ALLOWED: 2 HOURS
 2. This examination paper contains FOUR questions.
 3. Question ONE is compulsory.
 4. Answer any TWO other questions.
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Question 1

- a. Sub question 1 (8 marks)
- b. Sub question 2 (10 marks)
- c. Convert the following to binary:
- 1
 - 11
 - 111
 - 1111
- (4 marks)
- d. Sub question 4 (4 marks)
- e. Sub question 5 (4 marks)
- f. Sub question 6 (10 marks)

(Total: 40 marks)

Question 2

- a. Sub question 1 (6 marks)
- b. Sub question 2 (8 marks)
- c. Sub question 3 (8 marks)
- d. Sub question (8 marks)

(Total: 30 marks)

Question 3

- a. Explain in detail the following Bash script.

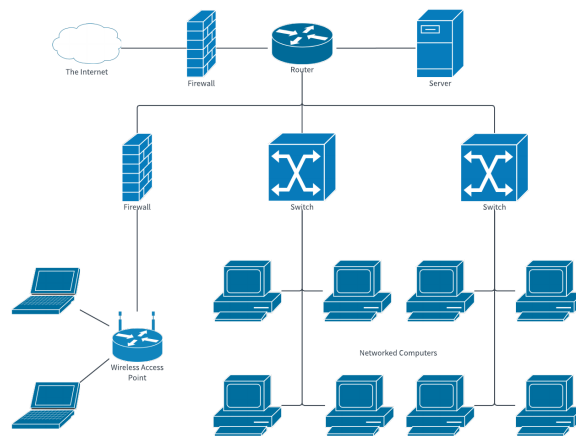
```
#!/bin/bash
while read item; do
  echo hello $item
done <$1
```

 (12 marks)
- b. Sub question 2 (10 marks)
- c. Sub question 3 (8 marks)

(Total: 30 marks)

Question 4

Consider the following network diagram:



- a. Sub question 1 (9 marks)
- b. Sub question 2 (6 marks)
- c. Sub question 3 (15 marks)

(Total: 30 marks)

END OF EXAMINATION