



MALAYSIAN INSTITUTE OF INFORMATION TECHNOLOGY

**FINAL EXAMINATION
JANUARY 2016 SEMESTER**

SUBJECT CODE : INB 48303
SUBJECT TITLE : Voice Over IP
LEVEL : BACHELOR
TIME / DURATION : 9.00 am – 11.30 am
(2 ½ HOURS)
DATE : 22 MAY 2016

INSTRUCTIONS TO CANDIDATES

1. Please read the instructions given in the question paper CAREFULLY.
2. This question paper is printed on both sides of the paper.
3. This question paper consists of TWO (2) sections. Section A and Section B
4. Answer ALL questions in section A. Answer TWO (2) question in section B
5. Please write your answers on the answer booklet provided.
6. Answer all questions in English.

THERE ARE 3 PAGES OF QUESTIONS, EXCLUDING THIS PAGE.

SECTION A (TOTAL: 60 marks)**INSTRUCTION: Answer ALL questions.****Please use the answer booklet provided.****Question 1**

- 1) Explain the concept of Voice over Internet Protocol?
[4 marks]
- 2) Elaborate the reason why the demand on using Voice over Internet Protocol will be increased in future?
[6 marks]
- 3) Give **TWO** (2) example can you find to prove that Voice over Internet Protocol are being utilized in our daily life?
[10 marks]

Question 2

- 1) Explain the term Packet Switched?
[4 marks]
- 2) Explain a Circuit switched operation and Packet switched operation?
[6 marks]
- 3) Compare the behaviour of Circuit Switched and Packet Switched?
[10 marks]

Question 3

1) Identify **SIX** (6) different characteristics between analog and digital signal?

[4 marks]

2) What are the basic parts that are needed in implementing Voice over Internet Protocol?

[6 marks]

3) What components were used in order to design and implement Voice over Internet Protocol?

[10 marks]

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SECTION B (TOTAL: 40 marks)**INSTRUCTION: Answer TWO questions.****Please use the answer booklet provided.****Question 4**

- 1) Latency is one of the issues which can affect the performance of Voice over Internet Protocol. How does the latency affect the Voice over Internet Protocol performance?

[10 marks]

- 2) Suggest **FIVE** (5) solution that could be done to minimize the effect of latency on the Voice over Internet Protocol?

[10 marks]

Question 5

- 1) There are **THREE** (3) types of speech codec in Voice over Internet Protocol. Can you list the types and features of the speech codec?

[10 marks]

- 2) Can you identify **FIVE** (5) different parts for Codec G.711 and Codec G.728

[10 marks]

Question 6

- 1) How would you elaborate the term of QoS in Voice over Internet Protocol?

[10 marks]

- 2) Identity the concept of QoS in Voice over Internet Protocol?

[10 marks]

END OF QUESTION