FINAL EXAM
FIRST SEMESTER SESSION 2011/2012

CODE/COURSE: STIJ3143/LATEST ISSUES IN NETWORK
DATE: 09 JANUARY 2012 (MONDAY)
TIME: 8.30-11.00 PM (2 ½ HOURS)
VENUE: BSB K.MAS

INSTRUCTION:

1. This exam paper contains TWELVE (12) structured questions, in EIGHT (8) printed pages, excluding the cover page.
2. You are required to answer ALL the questions in the space provided.
3. You are NOT ALLOWED to remove the exam paper from the examination hall.

MATRIC NO: ____________________________
( with word ) ____________________________
( with number )

IDENTIFICATION CARD NO.: ____________________________

LECTURER: ____________________________

GROUP: ____________________________ TABLE NO.: ____________________________

DO NOT OPEN THIS EXAMINATION PAPER UNTIL INSTRUCTED

CONFIDENTIAL
STRUCTURED QUESTIONS (100 MARKS)

1. Define **TWO (2)** terminologies below. (8 Marks)
   a. Telecommunication
   b. Data Communication Networks

2. Draw a diagram of Videoconferencing Network (8 Marks)
3. Define Transport Layer and Network Layer over network.  

4. a.) How an IP Address is stored?  

(8 Marks) 

(4 Marks)
b.) Define **THREE (3)** examples of Analog Voice Services. (4 Marks)
5. Explain the concepts of Ad-hoc On Demand Distance Vector (AODV) in Mobile Ad Hoc Network (MANET).

6. Fill in blanks space with a suitable answer(s) in the table below.

<table>
<thead>
<tr>
<th>The Generation</th>
<th>Access Protocols</th>
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</thead>
<tbody>
<tr>
<td>1G</td>
<td></td>
</tr>
<tr>
<td>2G and 2.5G</td>
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<tr>
<td>3G and 3.5G</td>
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<tr>
<td>4G</td>
<td></td>
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</tbody>
</table>
7. Give THREE (3) reasons why 4G services are needed? (8 Marks)

8. Discuss THREE (3) differences IPv4 compared with IPv6 protocol. (8 Marks)
9. The problems with VoIP audio quality are almost always related to network delay, jitter and packet loss. Explain briefly THREE (3) problems of VoIP audio quality.  
   (12 Marks)

10. Draw the BSS and ESS diagram.  
   (8 Marks)

   A. ESS
B. BSS

11. Define **TWO (2)** features of Green Mobile Networking. (8 Marks)
12. What are the sensors and provide THREE (3) types of sensors?  (8 Marks)