

NCC EDUCATION

**INTERNATIONAL DIPLOMA
IN
COMPUTER STUDIES**

NETWORKING

DECEMBER 2008 – LOCAL EXAMINATION

SECTION A

Answer all questions from this section.

SECTION B

Answer any 2 questions from this section.

Time: 2 hours

Clearly cross out surplus answers. Failure to do this in Section B will result in only the first two answers being marked.

Any reference material brought into the examination room must be handed to the invigilator before the start of the examination.

SECTION A**ANSWER ALL QUESTIONS IN THIS SECTION**

	Marks
QUESTION 1 Define the following two terms: A) Standalone Computer B) Sneaker net	4
QUESTION 2 Describe <i>Signal Propagation</i> and <i>Signal Bounce</i>	4
QUESTION 3 Briefly describe the following types of network transmission: A) Parallel Transmission B) Serial Transmission	4
QUESTION 4 Briefly describe the networks covered by each of the following standards: A) IEEE 802.3 B) IEEE 802.11	4
QUESTION 5 Define and briefly describe the following abbreviations:: A) CSMA / CD B) CSMA / CA	4
QUESTION 6 List FOUR (4) different ways to organize a Network Operating System (NOS) host drive.	4
QUESTION 7 List TWO (2) reasons why Linux administrators install Samba to allow a DOS or Windows machine to access Linux or Unix based file systems and services.	4
QUESTION 8 Name and briefly describe TWO (2) methods that the Windows Operating System uses for file security.	4
QUESTION 9 RAID 1 and RAID 5 are two flavours of fault tolerant storage solution. Identify the minimum number of disks for each of these TWO (2) flavours and describe them.	4
QUESTION 10 List FOUR (4) factors that should be considered before deciding between a dial-up and a dedicated PSTN connection.	4

Total 40 Marks**QUESTIONS CONTINUE ON NEXT PAGE**

SECTION B
ANSWER ANY TWO QUESTIONS

Marks

QUESTION 1

- A) Describe the TWO (2) major types of computer network. **6**
- B) List FOUR (4) advantages of each of the network types you have identified in A) above. **16**
- C) Briefly describe the following terms: **8**
 - i) Mail Server
 - ii) Fax Server
 - iii) Domain Controller or Directory Server
 - iv) .Net Computing

Total 30 Marks

QUESTION 2

Marks

- A) List and briefly describe FIVE (5) fundamental characteristics that all cables share. **10**
- B) Describe the following network media. **12**
 - i) Coaxial Cable
 - ii) Shielded Twisted Pair
 - iii) Unshielded Twisted Pair
 - iv) Optical Fibre Cable
- C) **8**

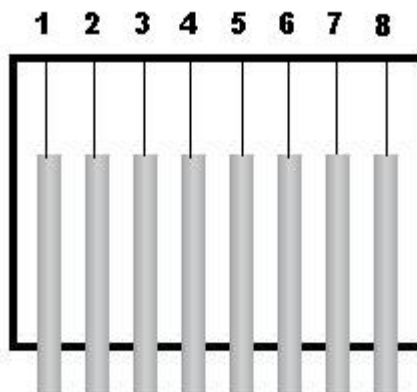


Figure 1

Figure1 above depicts the view of a RJ-45 plug from above following the TIA/ EIA 568B standard. Identify the colour of the wire for each pin.

Total 30 Marks

QUESTIONS CONTINUE ON NEXT PAGE

QUESTION 3**Marks****A)****4**

TCP / IP
a
b
c
d

Figure 2

Figure 2 depicts the layers of the TCP / IP model. Identify each layer in the correct sequence.

B) There are FIVE (5) IP address classes. List the range of each class and describe each class. Also identify the number of hosts that can be allocated for each network address of the range. **20**

C) Identify THREE (3) benefits of subnetting.

6**Total 30 Marks****END OF PAPER**