GUJARAT NATIONAL LAW UNIVERSITY
GANDHINAGAR
Course: Information Technology
Semester-II (Batch: 2015-20)

End Semester Examination: April-May 2016

Date: 8ᵗʰ May, 2016
Duration: 2 hours   **Max. Marks: 40**

Instructions:
- Read the questions properly and write the answers in the given answer book.
- The respective marks for each question are indicated in-line.
- Do not write any thing on the question paper.
- **Draw the diagrams only with pencil.**
- Indicate correct question numbers in front of the answers.
- No questions or clarifications can be sought during the exam period, answer as it is, giving reason, if any.

	Part-A	**Marks**

Q.1 Answer the following questions: (2x3= 06)

(a) Write any four differences between analog and digital signal
(b) Write full form of BIOS and explain it with the help of a neat diagram.
(c) Name and explain the types of software.

Q.2 Answer the following questions: (3x3= 09)

(a) Name and explain the various types of bus in a Computer System.
(b) Name and explain any three methods employed for collection of Audit Evidence.
(c) Convert the numbers into the number in the specified number system:
    (i) $(11100.001)_2$ into Decimal number system
    (ii) $(27.1875)_{10}$ into Binary number system
    (iii) $(204.125)_{10}$ into Hexadecimal number system

Part-B

Q.3 Choose the correct option in the following questions: (8x0.5 =04)

(a) Which one of the following crime is done using a computer as the instrument?
    (i) Computer manipulation
    (ii) Money laundering
    (iii) Data alteration
    (iv) Data mining

(b) Which one of the following is an example of a computer manipulation crime?
    (i) An intruder removes valuable information from a computer system
    (ii) Hacking
    (iii) A person alters payroll records to attain a higher rate of pay.
    (iv) Medical records are altered.

(c) Which one of the following is a computer crime that deprives the legitimate owner of a tangible asset?
   (i) Hacking
   (ii) Money laundering
   (iii) Manipulating the price of a stock
   (iv) Salami Slice

(d) What is the purpose of cryptanalysis software?
   (i) Breaking encryption
   (ii) Taking an advantage of security hole
   (iii) Impairing or destroying function in a computer
   (iv) Delivering attack software

(e) Which one of the following is not a feature of a "cookie"?
   (i) It is saved on the user's hard drive.
   (ii) It tracks which sites a computer has visited.
   (iii) It may assist in an investigation.
   (iv) They are evil program that scan the hard drive of a computer

(f) Which one of the following describes crime that is not reported to the police and that remains unknown to officials?
   (i) Dark figure of crimes
   (ii) Light figures of crimes
   (iii) Crime typology
   (iv) Cyberstalking

(g) Which one of the following is repeated harassing and threatening behavior by one individual against another, aspects of which may be planned or carried out in secret?
   (i) Dark figure of crimes
   (ii) Defamation
   (iii) Crime typology
   (iv) Cyberstalking

(h) Which one of the following is a criminal offense in which the motive is "hatred, bias, or prejudice, based on the actual or perceived race, color, religion, national origin, ethnicity, gender, or sexual orientation of another individual or group of individuals"?
   (i) Organized crime
   (ii) Corporate crime
   (iii) White-collar crime
   (iv) Hate crime

Q.4 Answer the following questions: (5x2= 10)

(a) What are the cyber vulnerabilities most often cited against cyber terrorism and what are the key Government organizations in our country working on this issue?

(b) Is there any relation between MAC address and IP address of a host? Justify the statement giving four reasons.

(c) A network administrator is connecting hosts A and B directly through their Ethernet interfaces, as shown in the illustration. What sort of possible crimes can one attempt using this network?

IP Address: 192.168.1.20   IP Address : 192.168.1.201
Mask   : 255.255.255.240   Mask   : 255.255.255.240
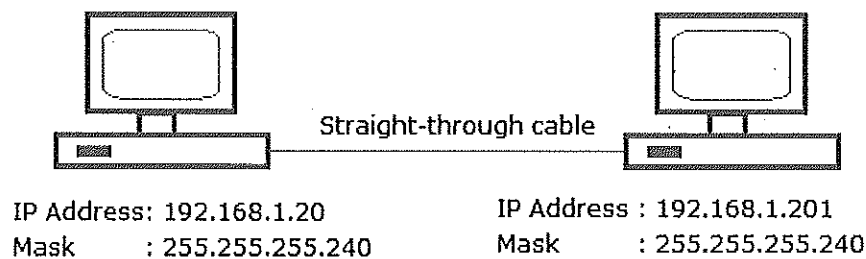
(d) What are the different types of network security? Explain any one.

(e) You are engaged in a penetration-test where you are attempting to gain access to a protected location. You are presented with this login screen:

How would you attempt to gain access? Write some examples of yours.

Q.5   Answer the following questions: (2x3= 06)

(a) Decrypt the following cipher text using substitution method.
    Cipher text- Ahb bahos of imparaing bducaaion in Gujaraa Naaional Law Univbrsiay comprisbs a muaual bndbavour of ahb Faculay and ahb saudbnas who bbcomb para of our augusa family afabr clbaring thb hurdlb of a rigorous and sarbnuous sblbcaion procbdurb, sincb only ahb crbam of ahb counary finds a placb amidsa us.
    Key= A-T, B-E

(b) In what type of issues the IT Act 2000 can not be applicable?

Q.6   Answer **any one** of the following: (1x5= 05)

(a) What is classic crypto? Explain the classification with Illustrations.

(b) Isha, a 14 year old girl got addicted to a social media website called Clickbook. She created a fake account on the identity of her elder sister Meera. She came into contact with a group involved in selling of cocaine through Clickbook. It was reported that, she sold 19kg of Cocaine online to the friends in her group. How will you investigate this case? What all documents will you record to prove in court room?

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