

Subject Teacher : Soma Rani Das (Sr.Instructor)
 Subject Name : Cyber Security & Ethics
 Subject Code : 28573
 Technology : Computer Science and Technology
 Semester : 7th
 BTEB Text Book Name : Cyber Security & Ethics (Hoque Prokashoni)
 Reference Book Name : CRC press book.

Marks	Grade Point	Letter Grade	Marks	Grade Point	Letter Grade
80>	4.00	A+	55-59	2.75	B-
75-79	3.75	A	50-54	2.50	C+
70-74	3.50	A-	45-49	2.25	C
65-69	3.25	B+	40-44	2.00	D
60-64	3.00	B	0-39	0.00	F

Mark Distribution (for 150 Marks)			
Theory Marks		Practical Marks	
Midterm	20	PC	25
Class test	10	PF	25
Quiz test	10	-	
Final	60	-	
Total	100	Total	50

Subject Aims:

To develop knowledge and skill on Cyber Security and Ethics.
 To develop knowledge and skill to create and apply of cyber security.

Subject Outcome:

Basics of Cyber Security, Implementation of Hardware based and software based security, Data and evidence recovery, Hacking, Cyber crimes, Cyber Ethics, IT Laws.

Lecture	Chapter/ Exam / Industrial Visit	Learning Area	Learning Outcome	Class/Lab Supporting Equipment's
1 st class	Introduction to subject	Why join BTEB syllabus in cyber security and Why learn Cyber Security subject	What is cyber security system	Computer and internet
01	Understand Cyber Security	1.1 Define is Cyber Security. 1.2 Classify Cyber Security. 1.3 Describe the necessity and role Of cyber security.	After the Class, Students will be able to: Know that Cyber Security and the necessity role of cyber security.	Computer and Internet
02	Quiz test -01	chapter 01	Marks-10	Pass Mark-04

03	Practice to recover an e-mail forgotten password.	2.1 Start a computer and open a browser and go to an e-mail provider such as gmail, yahoo. 2.2 Try to recover a forgotten password by entering various information 2.3 Login into the e-mail by new password.	After the Class, Students will be able to: • Know that Start a computer and open a browser and go to an e-mail provider such as Gmail, yahoo. • Try to recover a forgotten password by entering various information • 3 Login into the e-mail by new password.	Computer and Internet
04	Understand Cyber Security	1.4 Distinguish between Information security and Cyber security. 1.5 Describe and explain why information and cyber security are important to business and to society. 1.6 Explain Security, Identity, Authentication, Confidentiality, Integrity, Availability, Threat, Vulnerability, Risk and hazard.	After the Class, Students will be able to: • Know that cyber security is important to business and to society. • Explain Security, Identity, Authentication, Confidentiality, Integrity, Availability, Threat, Vulnerability, Risk and hazard.	Computer and Internet
05	Practice to recover an e-mail forgotten password.	2.4 Make a report for the above job.	After the Class, Students will be able to: • Know make a job report for e-mail forgotten password	Computer and Internet
06	Understand Data and Evidence Recovery	2.1 Define file recovery. Classify different procedures for file recovery. 2.2 Define data recovery and Forensic Tool Kit (FTK). 2.3 Describe various types of computer forensics tools.	After the Class, Students will be able to: • Know file recovery. Classify different procedures for file - recovery.	Computer and Internet
07	Apply various security steps in e-mail.	3.1 Open an e-mail. 3.2 Go to its Setting. 3.3 Apply two-steps verification by entering Mobile number and other e-mail address. 3.4 Try to change e-mail password by applying those security steps.	After the Class, Students will be able to: • Know open an e-mail. • Apply two-steps verification by entering Mobile number and other e-mail address. • Change e-mail password by applying those security steps.	Computer and Internet

08	Understand Data and Evidence Recovery	2.4 Discuss various Personal Identifiable Information 2.5 Discuss various types of E-mail threats.	After the Class, Students will be able to: Know types of E-mail threats.	Computer and Internet
09	Quiz test -02	chapter 02	Marks-10	Pass Mark-04
10	Apply various security steps in e-mail.	3.5 Make a report for the above job.	After the Class, Students will be able to: Know make a job report for security steps in e-mail.	Computer and Internet
11	Class test-01	Chapter=1,2	Total Mark=10	Pass Mark-04
12	Understand Cyber Crimes	3.1 Define Cyber Crimes. 3.2 Discuss various types of Cyber crimes cyber-bullying, cyber extortion, Phishing, Identity Thefts, Scamming, Cyber laundering (Money Laundering 2.0), DDoS Attack etc. 3.3 Define Malware. Describe various types of Malware. 3.4 Describes various types of Cyber Crimes such as Hacking, Cracking, Virus Attacks, Pornography, Software piracy.	After the Class, Students will be able to: - Know Cyber Crimes. - Various types of Cybercrimes cyber-bullying, cyber extortion, Phishing, Identity Thefts, Scamming, Cyber laundering. - Various types of Cyber Crimes such as Hacking, Cracking, Virus Attacks, Pornography, Software piracy.	Computer and Internet
13	Apply various security steps in social media such as Facebook login.	4.1 Open your Facebook account. 4.2 Go to its Setting. 4.3 Apply various security steps such as Mobile number and e-mail address 4.4 Try to change your Facebook password by applying those security steps.	After the Class, Students will be able to: - Know open your Facebook account. - To change your Facebook password by applying those security steps.	Computer and Internet
14	Understand Cyber Crimes	3.5 Define Intellectual property. 3.6 Describe Tracking, IP Tracking, E-mail recovery, Encryption and Decryption methods. 3.7 Describe password cracking.	After the Class, Students will be able to: - Know E-mail recovery, Encryption and Decryption methods. - Password cracking.	Computer and Internet
15	Quiz test -02	chapter 03	Marks-10	Pass Mark-04

16	Apply various security steps in social media such as Facebook login.	4.5 Make a report for the above job.	After the Class, Students will be able to: Know make a job report for Facebook login.	Computer and Internet
17	Understand Hacking	4.1 Define Hacking with its classification. 4.2 Describe the reasons and justification of hacking. 4.3 Describe various Hacking techniques such as Vulnerability scanning, Brute force Attack, Dictionary attack, Password cracking, Packet sniffer, Spoofing attack (Phishing), Programmed threats, Social Engineering etc.	After the Class, Students will be able to: - Know Hacking with its classification. - the reasons and justification of hacking - Various Hacking techniques.	Computer and Internet
18	Apply various security steps in social media such as facebook login.	4.1 Open your facebook account. 4.2 Go to its Setting. 4.3 Apply various security steps such as Mobile number and e-mail address 4.4 Try to change your facebook password by applying those security steps.	After the Class, Students will be able to: - Know Facebook account. - Change your Facebook password by applying those security steps.	Computer and Internet
19	Understand Hacking	4.4 Define Hacker. 4.5 Describe types of hacker such as script kiddie, white hat (Ethical hacker), black hat (crackers), gray hat, green hat, Red hat, blue hat etc.	After the Class, Students will be able to: Know Define Hacker.	Computer and Internet
20	Class test-02 ,chapter-3,4		Marks-10	Pass Mark-04
21	Midterm exam (chapter-01,02,03,04)			
22	Apply various security steps in social media such as Facebook login.	4.5 Make a report for the above job	After the Class, Students will be able to: Know make a job report for Facebook login.	Computer and Internet

23	Understand the basics of security	5.1 Define firewalls and Attack prevention. 5.2 Describe types of firewalls. 5.3 Make a comparison among the types of firewalls.	After the Class, Students will be able to: • Know types of firewalls	Computer and Internet
24	Install antivirus software and scan computer system with the software.	5.1 Open your computer. 5.2 Using web browser download a free antivirus software such as Avast, Avira etc. 5.3 Install the antivirus software	After the Class, Students will be able to: • Know Install the antivirus software.	Computer and Internet
25	Understand the basics of security	5.4 Describe basic online security. 5.5 Describe the motives of hackers. 5.6 Describe firewalls as the process of Attack Prevention.	After the Class, Students will be able to: • Know basic online security. • Firewalls as the process of Attack Prevention.	Computer and Internet
26	Quiz test-03,chapter-05		Marks-10	Pass Mark-04
27	Install antivirus software and scan computer system with the software.	5.4 Scan your computer with the the antivirus software. 5.5 Make a report for the above job.	After the Class, Students will be able to: • Know make a job report for Install antivirus software.	Computer and Internet
28	Understand Cyber Ethics	6.1 Define Cyber Ethics. 6.2 Define Ethical hacking. 6.3 Describe various aspects of Ethical hacking.	After the Class, Students will be able to: • Know Cyber Ethics. • Ethical hacking.	Computer and Internet
29	Practice to sending Confidential Information over Email utilizing WinZip.	8.1 Open your computer. 8.2 Create a MS Word file named Confidential Document.docx and encrypt the file by WinZip with a strong password. 8.3 E-mail the encrypted file to your friend. 8.4 Send the password of the file to your friend by mobile phone and tell him to open the file using the password. 8.5 Make a report for the above job.	After the Class, Students will be able to: • Know Create a MS Word file named Confidential Document.docx and encrypt the file by WinZip with a strong password • E-mail the encrypted file to your friend After the Class, Students will be able to: • Know make a job report sending Confidential Information over Email	Computer and Internet
30	Class test -03,chapter5,6		Marks-10	Pass Mark-04
31	Practical job report presentation			

32	Model test exam -1,chapter4,5,6
33	Model test exam -2,chapter1,2,3