



"ज्ञान, विज्ञान आणि सुसंस्कार यांसाठी शिक्षण प्रसार" - शिक्षणमहर्षी डॉ. बापूजी साठुंबे
Shri Swami Vivekanand Shikshan Sanstha, Kolhapur.

VIVEKANAND COLLEGE, KOLHAPUR

(An Empowered Autonomous Institute)

Affiliated to Shivaji University

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Department of Computer Studies



NOTICE

Date-03/01/2026

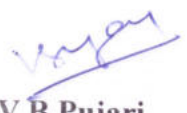
All the **MCA I Year** students that the **Unit Test** for the subject "**Cyber Security**" will be conducted as per the details given below: Students are required to be present on time with proper preparation.

Date :10/01/2026

Time :11:00AM to 12:00PM

Room No. : 512




Mr. V.B. Pujari
HEAD
DEPARTMENT OF M. C. A.
VIVEKANAND COLLEGE, KOLHAPUR
(EMPOWERED AUTONOMOUS)

Shri Swami Vivekanand Shikshan Sanstha, Kolhapur.

VIVEKANAD COLLEGE KOLHAPUR

DEPARTMENT OF COMPUTER STUDIES

UNIT TEST

Attendance Sheet

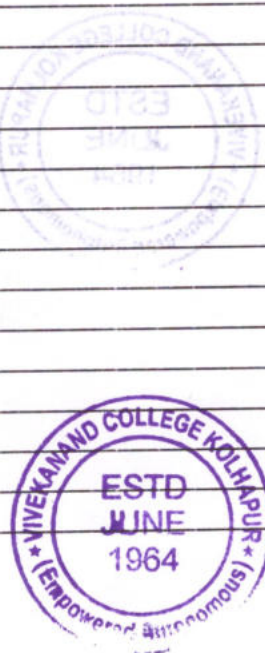
Subject-CYBER SECURITY

Date-10/01/2026

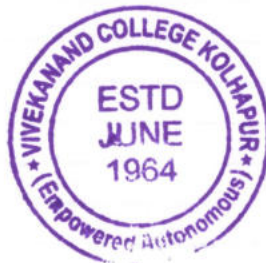
MCA I (2025-26)

SEM-I

ROLL.NO	NAME OF STUDENT	SIGN
1	AMBOLE SWAPNIL AMAR	AB
2	ATIGRE PRATHMESH UMESH	AB
3	BABAR MINAL SACHIN	ms. Babar
4	BABAR SANJANA SURESH	AB
5	SHRIRAM TUKARAM BATE	SBate
6	CHOUTHE NIKITA SAMBHAJI	Chouthi
7	CHOUGALE MANALI BHIMRAO	Chougale
8	CHOUGULE TIRTHA AMIT	Tirtha
9	DAHOTRE ADITYA DIVAKAR	AD
10	DALVI SAKSHI VISHWAS	dalvi
11	DAVANG PRANALI PANDURANG	Pavang
12	DESAI KHUSHI MAINUDDIN	Khushi Desai
13	DESAI SANDESH SUDHIR	AB
14	DESAI MAYURI RAVINDRA	Desai
15	DESAI ADITYA VILAS	AD
16	DHONUKSHE ROHAN NAMDEV	AD
17	DIVASE PRACHI PANDHARINATH	Prachi
18	DIXIT VAISHNAVI UMESH	AB
19	DUBALE PRATHMESH DADASO	PD
20	EKAL PRUTHVIRAJ VISHWANATH	Pruthvi
21	GADKARI NAWAZ SALIM	Gadkari
22	GAIKWAD SHREYA SHIVAJI	Gaikwad
23	GAWADE VINAYAK AMRUT	GA
24	GOKHALE NEEL MAKARAND	Gokhale
25	GURAV VAISHNAVI SAMBHAJI	Gurav
26	HASABE SUSHANT VIKRAM	AB
27	HIREMATH ROHINI MANTESH	HR
28	JADHAV MANAV DHANAJI	AB
29	JADHAV SUDESHA GANESH	Sudesh
30	JAGTAP TANVI NITIN	Jagtap
31	KADAM RAJ SHANKAR	AB
32	KADAM HARSHADA HINDURAO	Kadam
33	KADAM RUTUJA MARUTI	AB
34	KAMBALE SOURAV KRISHNAT	AB
35	KAMBLE KRANTI VITTHAL	Kamble
36	KAMBLE SANDIP SADASHIV	SK
37	KAMBLE VAISHNAVI NANASO	Kamble
38	KASHID SHRUTIKA PRAKASH	AB
39	KHADE PRITI SANJAY	Khade
40	KHANDEKAR VISHAL VILAS	VK



41	KOTHMIRE SHIVAM KIRANRAO	<u>Shivam</u>
42	LOHAR PIYUSH PRAKASH	<u>Piyush</u>
43	MANDEKAR SOURABH VIJAY	<u>Sourabh</u>
44	PARIT SALONI SHAHAJI	<u>Parit</u>
45	PARIT APARNA NAMDEV	<u>Parit</u>
46	PATIL PRATIK NAMDEV	<u>Patil</u>
47	PATIL NANDINI SHRIKANT	<u>Nandini</u>
48	PATIL ABHISHEK TANAJI	<u>AB</u>
49	PATIL SANDESH SHAHAJI	<u>Patil</u>
50	PATIL MADHURA MOHAN	<u>Madhura</u>
51	PATIL PAYAL NAMDEV	<u>Payal</u>
52	PATIL SHRUTIKA BALWANT	<u>Shrutika</u>
53	PATIL ADITYA RANJIT	<u>AB</u>
54	PATKARE DIVYANGANA SANJAY	<u>D. S. Patkare</u>
55	POTDAR AISHWARYA VIJAY	<u>P. D. Potdar</u>
56	POWAR SAYALI JAGANNATH	<u>S. Powar</u>
57	POWAR SIDDHESH RUPESH	<u>S. Powar</u>
58	SMIT SAMEER PRASADE	<u>Smit</u>
59	SHIKALGAR ALSHIFA PARVEJ	<u>AB</u>
60	SHINDE SAKSHI PANDURANG	<u>Shinde</u>
61	SINGH ROHAN UMACHARAN	<u>Rohit</u>
62	SURYAVANSHI VAISHNAVI VINAYAK	<u>Vaish</u>
63	SUTAR SHWETA SURESH	<u>Sutar</u>
64	VARUTE SAMRUDDHI BABURAO	<u>Varute</u>
65	WAINGADE SONIYA VIJAY	<u>Soniya</u>
66	YADAV PRANALI DHONDIRAM	<u>Yadav</u>
	FACULTY SIGN -	<u>Yadav</u>



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DEPARTMENT OF COMPUTER STUDIES

UNIT TEST Mark Sheet

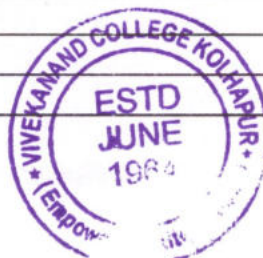
Subject-CYBER SECURITY

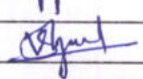
Date-10/01/2026

MCA I (2025-26)

SEM-I

ROLL.NO	NAME OF STUDENT	MARK
1	AMBOLE SWAPNIL AMAR	AB
2	ATIGRE PRATHMESH UMESH	AB
3	BABAR.MINAL SACHIN	15
4	BABAR SANJANA SURESH	14
5	SHRIRAM TUKARAM BATE	16
6	CHOUTHE NIKITA SAMBHAJI	10
7	CHOUGALE MANALI BHIMRAO	11
8	CHOUGULE TIRTHA AMIT	09
9	DAHOTRE ADITYA DIVAKAR	12
10	DALVI SAKSHI VISHWAS	13
11	DAVANG PRANALI PANDURANG	13
12	DESAI KHUSHI MAINUDDIN	11
13	DESAI SANDESH SUDHIR	AB
14	DESAI MAYURI RAVINDRA	11
15	DESAI ADITYA VILAS	10
16	DHONUKSHE ROHAN NAMDEV	09
17	DIVASE PRACHI PANDHARINATH	14
18	DIXIT VAISHNAVI UMESH	AB
19	DUBALE PRATHMESH DADASO	09
20	EKAL PRUTHVIRAJ VISHWANATH	10
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Unit Test

09/08/20

Page No.	
Date	

Name - Tirtha Amit chougule.

Roll no - 08

Subject - Cyber security

MCA-I

Que.1 Explain concept of cyber security? Explain how cyber security helps in corrupted system & network

Que.2 Define cyber threat & cyber attack. Difference suitable example.

Que.3 Define cyber space & explain architecture of cyber space with diagram

Que.4 Define cyber crime & cyber law. Classify cyber crime with suitable diagram

Que. —

3 → - cyberspace first coined the William Gibson in year 1984

- cyberspace means environment which computer communication to each other

- cyberspace is the space of the computer server other device share the data & communication. & access use.

- The primary purpose of cyberspace is interconnected to computer sharing the resources.

• Architecture of cyberspace.

i) network infrastructure: In cyberspace physical

Virtual device. is connected to each other sharing data.

- network infrastructure is a interconnect device. cyberspace.

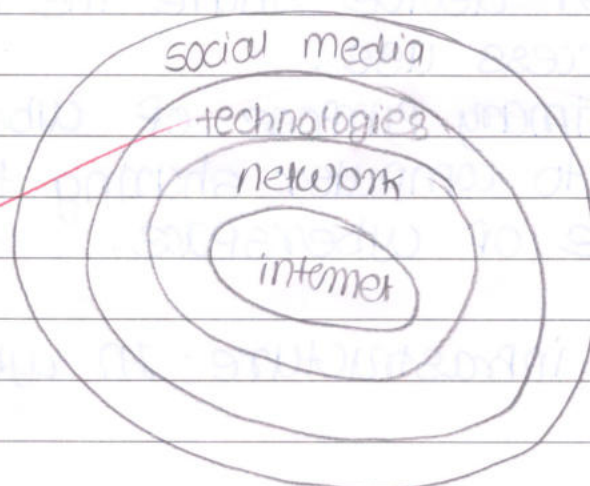
ii) protocols - Protocol is the set of used to web application from famous protocols like TCP/IP - the cyberspace. protocols is used like TCP/IP models.

iii) Domain namespace - Domain names system is the reliable system. connected the IP address to machine alone.

iv) data center - there are many types of data center & services are maintain in digital world

v) cloud computing - there are new merging technique cloud services get through the internet but it has in to pay user for specific services

vi) internet of thing (IoT) - In the digital world. using internet all things connected to each other.



que.1 → cyber security is a practice of protecting computer network system & data from theft, damage or unauthorized access. It encompasses like web technologies & process & protecting design.

concept of cybersecurity

- i) ~~confidential~~
- ii) ~~integrity~~ integrity
- iii) availability
- iv) authentication.

i) ~~confidential~~ - It is secure for only one person

04 ii) integrity - It is used for secure any device. ~~is~~ using password, fingerprint or any security source

ex:- ~~is~~ checksum

iii) availability - It is an used for ~~24/7~~ security term to use ~~to~~ secure the data ~~is~~ this ~~used~~ ~~is~~ available in 24/7 for the security

iv) authentication - An authentication is used. For check the security in two ways ~~or~~ this is called two way authentication & it can. used to check security in two times.

Unit Test - 1

12
20

DATE



Name: Neel Makarand Gokhale

Roll no: 24

Std: MCA - I

Subject: Cyber Security

Q.1- Analyze concept of cybersecurity. Explain how cybersecurity helps in securing corrupted system & network. ^{Confidentiality, Integrity, Availability, Authenticity}

Q.2- Define the cyber threat & cyber attacks. Explain the difference between them.

Q.3- Define the cyberspace & architecture with diagram.

Q.4- Define cybercrime & cyberlaw. Classify cyber crime with suitable example.

Q.1-

Cybersecurity is the practice of protecting computer systems, networks & data from theft, damage or unauthorized access.

It encompasses a wide range of technologies, processes & practices designed to safeguard digital information & ensure the confidentiality, integrity & availability of data.

1) Confidentiality:

The principle focus on primary data that of sensitive information is only accessible to authorized individual.

The main confidential data is sensitive to the cyber attackers. Confidentiality saves our confidential data to protect from the attackers.

2) Integrity:

The principle focus on integrity between the data & refers accuracy & trustworthiness of data.

It protects the data from unauthorized networks.

3) Availability :

The data or info should be follow all cyber security & it is safeguard the availability of cyber security. It is important concept in securing systems from the network.

4) Authentication :

04 Authentication is important aspect of the safeguarding our system & networks. Two factor or passkeys are used for double authentication. Authentication helps us to protect our private data from unauthorized access.

Q.2 -

Cyber Threats :

Cyber threats are primarily means threatening someone online using social media & it is sometimes unintentional & mostly used to attack woman & kids.

Cyber attacks :

Cyber attacks are precise & targeted by many hackers to gain valuable information from a organization, famous person or government websites.

03 Cyber threats are considered as bullying, abusing, posting sensitive photos of others and these are also serious threats can damage mental peace of a person.

Cyber attacks are mostly hacking into a bank system, personal account & it will damage both trust & reputation of the organization.

In cyber threat the attacker only attacks or threat a organization for a money & it can be solved by

Q. 4

Cybercrime :

cybercrime term refers to online attacks, phishing, exporting malware on a government or on school websites. In multinational company sending there security logs to their competition company & hacking into family's network gathering there private information. Ransomware which is also considered as cyber crime. Exploiting, online grooming of kids, showing them appropriate images also leads to be cybercrime.

Cyber laws :

To regulate cyber crimes the government & UN created laws according to their serious crimes.

Cyber laws gives justice to the victims from there attackers. In India cyber law 2000, Under section 66c, 66d for all types of cyber attacks.

e.g- Cosmos Bank being attacked by hackers from so many countries.

05 In this cyber attack attackers targetted their ATM & online website. They sended there malicious worms to target & get the ATM & personal access of the p customers and they transfered many lakhs into there own currency & later found by the cyber team.

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PAGE No.

DATE: 10/01/2026

Name - Payal Namdev Pati

Roll No - 51

Subject - Cyber security

- Q1] Analyze the concept of cyber security. Explain how cyber security helps in securing corrupted systems & network.
- Q2] Define the cyber threats and cyber attack also difference between cyber threats and cyber security with example.
- Q3] Define the cyberspace & explain architecture of cyberspace with neat diagram.
- Q4] Define cybercrime & cyberlaw classify cybercrime with suitable example.

Q5]

→

Cyber security -

- cyber security is an concept of Protecting computer system, network and data from theft, damage or unauthorized access.
- cyber security is nothing but security of our sensitive data, technologies, Photos etc.
- Cyber security have an 3 components and cyber security works on Confidentiality, Availability, integrity etc.
- Confidentiality - cyber security provides an security to our computer systems. cyber security maintain Psychological maintain of humans.
- Availability - cyber security provides availability and with the help of Two-factor Authentication, Passwords user can save for his data in secure manner.
- integrity -

Q6]

Cyber security helps in securing corrupted systems & networks
- The cyber security provides Protection of our sensitive data and also protect our computer systems and organization.

as an a corrupted data.

③ Two-factor Authentication-

- The two factor authentication can helps for protecting data.

- 1st cyber security can detect the error and then process it.

④ cyber threats-

- cyber threats is an attempt the hack our system and get data for missuse.

- cyber threats is an not a actual attack this is only the potential type of hacking.

- The nature of cyber threats is an Potential.

- The example of cyber threats identity theft.

cyber attacks-

- The cyber attacks is an actual active process of gain sensitive data and misuse this data for
- cyber attacks are harmful of everything such as bank account hacking, or the sensitive data leakage.
- The nature of cyber attack is active because is an actual process of an unauthorised access.
- The Types of cyber attacks-

1) Malware-

- The hacker can make malicious software of getting entry in a system then this malicious software leak the sensitive data.

2) Data breaches-

- The data breaches is an type of cyber attacks it leaks sensitive information about the user.

* Difference between cyber attack & cyber threats.

Cyber threats	cyber attacks
1) Definition - The cyber threats is an nothing a actual cyber attack. Is an only attempt of hacking systems. Is an process of att attempt of hacking.	1) Definition - The cyber attacks is an actual active process of gain control of users system. The hackers using attacks gain sensitive data like Passwords, photos and misuse this data.
2) Nature - The cyber threats's nature is Potential.	2) Nature - The nature of <u>cyber attacks</u> is an active.
3) Example - identity theft.	3) Example - malware Attacks (worms, Trojan), phishing, Data breaches.

Q3]

→ Cyber crime -

- cyber crime is an practice of gain unauthorized access of data and gain control of users systems.
- The third Party Person can enter in system this called an cyber crime.
- The cyber crimes are hacking, cyber attacks.
- The malware, Phishing, Spoofing, etc are the types of cyber attacks.
- Crime means bad behaviour and in the computer system using misbad behaviour is also called as cyber crime.
- The cyber crimes based on children and women cyber crimes.
- The cyber crimes impact of psychological maintenance, personal life, organizational growth, social environments.

cyber law -

- cyber law is an step of taking step against the cyber criminals.
- The government of india provides number of act for cyber crime.
- The cyber criminals can attempt the misuse of data then cyber law's different acts perform different roles.
- The women & children based cyber laws, Photo & videos defecing cyber laws, cyber Terrorism against laws this are the cyber laws.
- The laws can make security for an human for justice.
- cyber laws on the making trust between the users.
- The government of india made IT Act (2008) for against the cyber criminals.

* classification of cybercrimes -

1) Based on individuals -

This cybercrime impact of human's life and personal identity.

i) Identity theft -

- The hacker can get Person's identity likes photos, videos, Aadhar number, A PAN number for misuse.

Ex - with the use of Aadhar card hacking bank account and loss of money.

ii) ~~fraud online fraud~~ -

- The online fraud is almost popular & frauds. This fraud calls the user for share your OTP and hack bank account.

2) Based on Property / Financial -

This crimes impact on the financial life.

i) credit card fraud -

- Misuse of credit card for shopping and other activities.

ii) ~~online fraud~~ -

- The ~~online~~ fraud is a most popular frauds. This fraud calls the user for share your OTP and hack bank account.

3) Based on organization / Business -

i) malware (worms, Trojans) -

- The hacker can make malicious software and entered in the system. and gain unauthorized access.

ii) ~~Denial of service (DDoS or DoS) Attacks~~ -

iii) Data Breaches -

- The data leakage and hacking the system.

Q) Based on society / Government -

This cyber crimes impact on society and government system.

i) Cyber Terrorism -

- The unauthorized entered access in government systems.

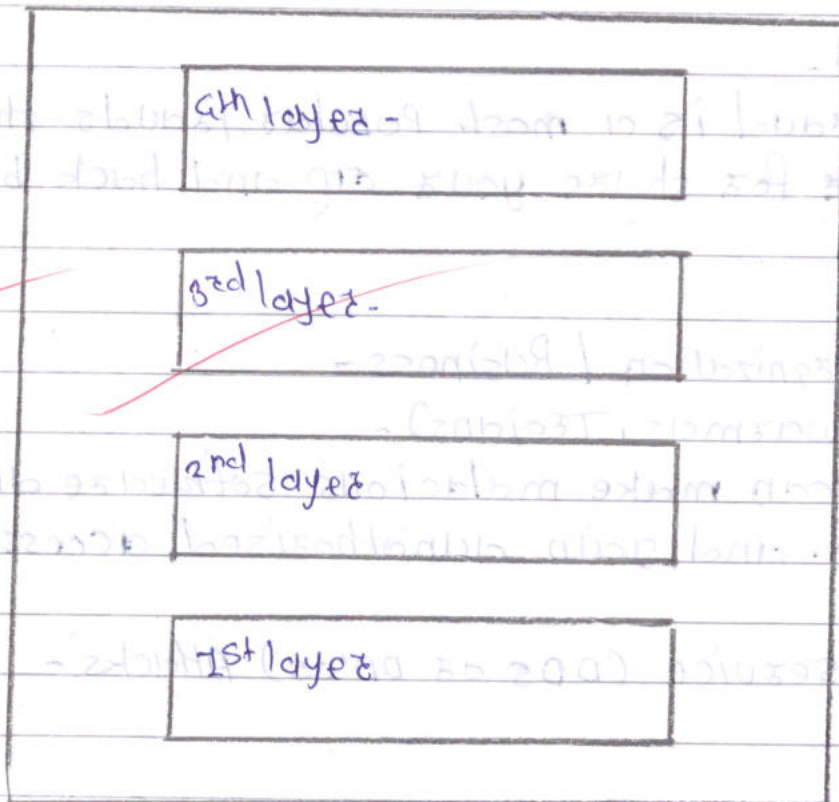
ii) Defacement..

Q3)

→ cyberspace -

- The cyberspace first coined by the williams & Gibsons in 1984.

- The cyberspace is nothing but space between two computer for communicates with each other.



Unit Test.

14
20

classmate

Date _____

Page _____

Name - Sanjana Suresh Babae

Roll No - 04

Subject - Cyber Security

Date - 10-01-2026

- Q-1. Explain the concept of cyber security. Explain cyber security helps in corrupted systems of organization.
- Q-2. Define cyber threats & cyber attacks difference with suitable example.
- Q-3. Define cyberspace and explain the architecture of cyberspace with diagram.
- Q-4. Define the cyber crime & cyber law classify cyber-crime with suitable examples.

- Q3 → * Cyberspace
- Cyberspace is first coined or introduced by the William Gibson in year 1984.
 - Cyberspace means environment which computer communication to each other.
 - Cyberspace is a space computer server or other devices share the data communication & access the user.
 - The primary purpose of cyberspace is interconnected to the computer sharing the resource and devices.
 - It is an intangible space where data is created, transmitted & accessed electronically.
 - Cyberspace is the online world where activities like

* Architecture of cyberspace.

* 1. Network infrastructure-

- In cyberspace physical & virtual devices is connected to each other sharing data or resources to user devices like router, switches etc.

- Network infrastructure is interconnect the device in cyberspace.

* 2. protocols-

- protocols is the set of rule is used to web application famous protocol like TCP/IP,

- The most protocols are used in cyberspace to sharing the resources securely to the users.

* 3. Domain Name System (DNS) -

- Domain is the readable format and this domain system is convert into IP address

- * Example - www.net.com these domain convert into domain system.

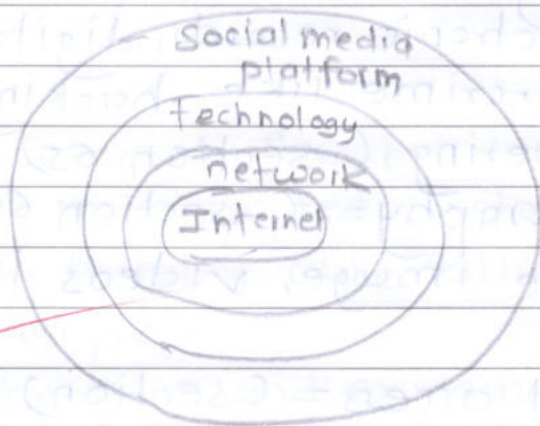
4. Cloud Computing -

- Cloud computing is the concept of merging techniques cloud services get through the internet but it has to pay user for specific services.

5. cloud Data Center-

- There are many of data centers & servers

* Architecture of cyberspace



6. Web application -

- User access the any resource through the web application interconnected through the internet.

8. Web browser -

- User access any data user used web browser like firefox, mozilla firefox, chrome etc.

Q.4.

* Cybercrime -

The cyber crime means that creating the ~~resources~~ illegal activity apply the computer network device for damage the data etc.

- cybercrime is a crime committed and cyber space using digital technology.
- Cybercrime involves digital acts

* cyberlaws.

1. IT Act 2000 -

- The primary law, amended in 2008 legally recognize electronic records, digital signature and penalize cybercrime like hacking (Section 66) & data tempering (Section 65)

* Child pornography = (Section 66D) -

- child intimate image, videos in viral social media

* Unauthorized access = (Section) 64 -

- control access the unauthorized in personal PC, devices & network theft data etc.

2. Indian penal code (IPC)

- Section of the IPC (like 420 for cheating 500 for defamation & 509 for insulting modesty) are apply to cybercrime committed email & online.

3. police officer (like Inspector in india) are empowered to investigate

* Example

- There are billion people name emails, phone-no hacked to hacker preventing the security.
- Equifax in the cyber security laws to investigate the many users personal information.

Q.1. *cyber security-

Cyber security is the practice protection computer system, network, application & data from unauthorized access, cyber attacks damage or misuse. It involves the use technology, process etc.

* CIA triad

1. Confidentiality = data is access only by authorized user.
2. Integrity = data is accurate & not altered or law.
3. Availability = system & data are available when required.
4. Authentication = preventing information using password, two step authentication and face recognition etc.

Q.2. cyber threats -

- cyber threats means steal the data, data theft, data theft for individual business for financial losses, system disrupted etc.
- cybersecurity involve the hackers, hackers are used various tools & technology for distorted the devices and systems.

* Difference between cyber threats & attacks

Cyber threats

1. A possible danger or risk

2. external, physical or non-physical source

3. Hard to detect and identify

4. It is a international damage

5. cyber threat example

- phishing emails
- Insider threats
- unwanted software

Cyber Attacks

Actual harmful actions.

ransomware, DoS, DDoS.

Easier to identify

It is a international damage always

cyber Attack example

- Ransomware attack
- SQL injection
- Man-in-middle attack