



RV Educational Institutions<sup>®</sup>  
RV College of Engineering<sup>®</sup>

Autonomous  
Institution Affiliated  
to Visvesvaraya  
Technological  
University, Belagavi

Approved by AICTE,  
New Delhi

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Academic year 2024-2025 (Odd Semester)

## DEPARTMENTS OF COMPUTER SCIENCE/ INFORMATION SCIENCE AND ENGINEERING

Date	Dec 2024	Maximum Marks	10+50
Course Code	22MCE3E2T	Duration	120 Min
Sem	III	CIE - I	
<b>CYBER SECURITY(Elective common to PGCSE/PGCNE)</b>			

SL No.	Part A- Quiz	M	BT	CO
1	----- is an activity on the internet of the victim, gather all information in the background, and send it to someone else.	1	L2	CO1
2	_____ is a type of software designed to help the user's computer detect viruses and avoid them.	1	L2	CO1
3	Define Cryptanalyst?	1	L1	CO2
4	Write three key elements of CIA triad.	2	L3	CO3
5	It can be a software program or a hardware device that filters all data packets coming through the internet, a network, etc. it is known as the _____	1	L3	CO2
6	Define Piracy, Plagiarism	2	L2	CO4
7	When was the first computer virus created?	1	L2	CO2
8	In the computer networks, the encryption techniques are primarily used for improving the _____	1	L2	CO2

SL No.	Part B -Test	M	BT	CO
1.a	Illustrate with reasons and examples why do cyber security is important. Briefly discuss the types of cyber-attacks.	5+5	L1	CO2
2.	Describe the basic principles of Confidentiality, Integrity and Availability with a neat diagram depicting cyber cube.	5+5	L2	CO2
3	Illustrate with a neat diagram concept of DNS and the associated attacks	5+5	L3	CO4
4	Illustrate with examples the following terms (i)Virus (ii)Worm (iii) Trojan Horse (iv)Logic Bomb (v) Boot sector Virus	2x5	L3	CO2
5	Define Symmetric Encryption ? Discuss in detail the working principles involved in the design of public key encryption technique with an example.	5+5	L2	CO2





# RV College of Engineering®

Mysore Road, RV Vidyaniketan Post,  
Bengaluru - 560059, Karnataka, India

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Academic year 2024-2025 (Odd Semester)

## DEPARTMENTS OF COMPUTER SCIENCE/ INFORMATION SCIENCE AND ENGINEERING

Date	8 <sup>th</sup> Feb 2025	Maximum Marks	10+50
Course Code	22MCE3E2T	Duration	120 Min
Sem	III	CIE - II	
CYBER SECURITY(Elective common to PGCSE/PGCNE)			

SL No.	Part A- Quiz	M	BT	CO
1	Define uses of library level root kits	1	L2	CO1
2	_____ is an ongoing pursuit by an individual / group?	1	L2	CO1
3	_____ keeps tabs on every online activity the victim engages in, compiles all the data in the background, and sends it to a third party?	1	L1	CO2
4	How is IP address spoofing detected?	2	L3	CO3
5	Name the malware that does not replicate or clone itself through infection?	1	L3	CO2
6	What are the port states determined by Nmap?	2	L2	CO4
7	_____ is the most important activity in system hacking?	1	L2	CO2
8	Phishing is a form of _____.	1	L2	CO2

SL No.	Part B -Test	M	BT	CO
1.	Define proxy server? Interpret with examples why do we use proxy servers? Also discuss different types of Proxy servers.	5+5	L1	CO2
2.	Illustrate with neat diagram Tunneling technique? Discuss the principles of SSH used in tunneling techniques.	10	L2	CO2
3	Briefly discuss concept of Phishing, Smishing, Vishing, and Mobile Malicious Code with relevant examples.	5+5	L3	CO4
4	Conceptualize threat infrastructure taking botnet as case study: centralized and decentralized botnet infrastructure.	2x5	L3	CO2
5	Mention and briefly discuss types of fast-flux with their architectures.	5+5	L2	CO2





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**DEPARTMENT OF COMPUTER SCIENCE & ENGINEERING**

Academic year 2024-2025 (Odd Semester)

ate	March 2025	Maximum Marks	10+50
Course Code	22MCE3E2T	Duration	120 Min
em	III	CIE – III( Improvement)	
<b>CYBER SECURITY(Elective common to PGCSE/PGCNE)</b>			

L No.	Part A- Quiz	M	BT	CO
1	_____ are piece of programs or scripts that allow hackers to take control over any system.	1	L2	CO1
2	The process of finding vulnerabilities and exploiting them using exploitable scripts or programs are known as _____	1	L2	CO1
3	Which of the following is not a powerful vulnerability detecting tool? a)Nessus b) Nexpose c)Metasploit d) Nmap	1	L1	CO2
4	_____ is the specific search engine for exploits where anyone can find all the exploits associated to vulnerability.	2	L3	CO3
5	There are _____ types of exploits based on their working.	1	L3	CO2
6	A _____ is a set of changes done to any program or its associated data designed for updating, fixing, or improving it.	2	L2	CO4
7	_____ are some very frequent updates that come for every anti-virus.	1	L2	CO2
8	National Vulnerability Database (NVD) is _____ repository of data regarding vulnerability standards.	1	L2	CO2

No.	Part B -Test	M	BT	CO
1.	Illustrate with examples how do knowledge of exploitation techniques help in cyber security ? Briefly discuss the relevant techniques	5+5	L1	CO2
2.	"Software vulnerabilities are explained by three ideal factors" Justify	5+5	L2	CO1
3	Illustrate with a neat diagram concept of SQL Injection and the associated attacks	5+5	L3	CO1
4	Illustrate with examples the following terms (i)buffer overflow (ii)Heap overflow (iii) Integer overflow (iv)Unicode overflow (v) stack overflow	2x5	L3	CO1
5	Define Phishing attack? Discuss in detail the various counter measures taken to prevent such attacks with an example.	5+5	L2	CO1