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Code No. : 14118 N(B)

VASAVI COLLEGE OF ENGINEERING (Autonomous), HYDERABAD
B.E. (CBCS) IV-Semester Main Examinations, May-2019

Cyber Security
(Open Elective-II)

Time: 2 hours

Max. Marks: 40

Note: Answer ALL questions in Part-A and any FIVE from Part-B

Q.No.	Stem of the question	M	L	CO	PO
Part-A (5 × 2 = 10 Marks)					
1.	Define Cryptography. Differentiate symmetric and asymmetric cryptography.	2	2	1	1,2
2.	What is the cipher text of "good evening" using Caesar cipher?	2	3	1	1,2
3.	Differentiate Worms and Viruses.	2	2	2	1,2
4.	If an attacker installs a spyware in a system to monitor user's activity without his or her knowledge. Then, What kind of information can be stolen from that spyware installed system.	2	3	2	1,2
5.	What is "Great Firewall of China spreads to the US" problem?	2	3	1	1,2
Part-B (5 × 6 = 30 Marks)					
6. a)	What is a click fraud? Explain about various click fraud techniques in detail with examples.	3	2	1	1,2
b)	Describe the RSA (Rivest Shamir and Adelman) public key cryptosystem. When Bob has public RSA key ($n = 65, e = 5$), Show that Bob's private key is ($d = 29$)	3	3	1	1,2
7. a)	Explain the process of resolution of <u>www.google.com</u> using recursive DNS server.	3	3	1	1,2
b)	Define firewalls. Explain the working of Firewalls with the help of a neat diagram.	3	2	1	1,2
8. a)	What is a Botnet? What is the role of Botmaster? Which server is used to centralize the Botnet Infrastructure? Explain with the help of the figure how the Infrastructure of the different centralize Botnets will work.	4	2	1	1,2
b)	Explain Authentication, Authorization with an example.	2	2	1	1,2
9. a)	Define SQL.	2	2	2	1,2
b)	What is SQL injection? Explain with an example how an attacker can use to exploit this.	4	3	2	1,2
10. a)	What is shell code? Write the steps for executing shell code by an attacker with an example.	2	3	2	1,2
b)	Define Rootkit. Differentiate user mode and kernel mode root kits.	4	2	2	1,2
11. a)	What is Man In the Middle Attack?	2	2	2	1,2
b)	Explain how MITM attack is achieved through Address Resolution Protocol and Domain Name System.	4	2	1	1,2
12. a)	Explain Cipher Block Chaining with a neat diagram.	3	2	1	1,2
b)	What is phishing and how does it work?	3	2	2	1,2

M: Marks; L: Bloom's Taxonomy Level; CO: Course Outcome; PO: Programme Outcome

S. No.	Criteria for questions	Percentage
1	Fundamental knowledge (Level-1 & 2)	58%
2	Knowledge on application and analysis (Level-3 & 4)	42%
3	*Critical thinking and ability to design (Level-5 & 6) (*wherever applicable)	-