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Total No. of Printed Pages: [01]

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**BCA-MCA Dual Degree (Semester – 6th)**

**NETWORK SECURITY**

**Subject Code: BMCAS1602**

**Paper ID: [19340125]**

**Time: 03 Hours**

**Maximum Marks: 60**

**Instruction for candidates:**

1. Section A is compulsory. It consists of 10 parts of two marks each.
2. Section B consist of 5 questions of 5 marks each. The student has to attempt any 4 questions out of it.
3. Section C consist of 3 questions of 10 marks each. The student has to attempt any 2 questions.

**Section – A**

**(2 marks each)**

Q1. Attempt the following:

- a) What is dictionary attack?
- b) Define Cipher text.
- c) What is factorization problem?
- d) List out different attacks that can hack data.
- e) Differentiate between symmetric and asymmetric encryption.
- f) What is the role of a firewall in network security?
- g) What is VPN?
- h) How does a Denial of Service attack differ from a distributed denial of service attack?
- i) What are the key characteristics of a secure wireless network?
- j) Define NAC.

**Section – B**

**(5 marks each)**

Q2. Explain briefly about IP Security.

Q3. Give details about Directory Authentication Service.

Q4. Write about Authentication Application.

Q5. What do you understand by term Intruders, Viruses. Explain its related Threats?

Q6. Explain public key infrastructure.

**Section – C**

**(10 marks each)**

Q7. Explain digital Signatures and Authentication?

Q8. With the help of diagram, give overview of SNMP Architecture.

Q9. What is firewall? Describe types of firewalls and their limitations.