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Reg. No....

# FOURTH SEMESTER M.Sc. DEGREE (REGULAR) EXAMINATION MARCH 2021

(CBCSS)

## Computer Science

#### CSS 4E 03 C—SYSTEM SECURITY

(2019 Admissions)

Time: Three Hours

Maximum: 30 Weightage

### **General Instructions**

- 1. In cases where choices are provided, students can attend all questions in each section.
- 2. The minimum number of questions to be attended from the Section/Part shall remain the same.
- 3. There will be an overall ceiling for each Section/Part that is equivalent to the maximum weightage of the Section/Part.

#### Section A

Answer any **four** questions. Each question carries 2 weightage.

- 1. What do you mean by information security?
- 2. What is Salami attack?
- 3. Write a note on memory address protection in OS.
- 4. Write short on biometric based authentication.
- 5. How the terms confidentiality and availability are related?
- 6. Who all will be the team member of an effective security administration wing?
- 7. What do you mean by non-malicious program errors?

 $(4 \times 2 = 8 \text{ weightage})$ 

#### Section B

Answer any four questions.

Each question carries 3 weightage.

- 8. Explain how the terms security, confidentiality and integrity are related.
- 9. Write the importance of program security in systems security.
- 10. What are the file access protection mechanism available in Operating Systems?

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- 11. What are the things to be taken care while designing an authentication module?
- Write a short note on database security.
- 13. What are the characteristics of a good security policy?
- 14. What do you mean by multi-level security? Explain with an example.

 $(4 \times 3 = 12 \text{ weightage})$ 

#### Section C

Answer any two questions.

Each question carries 5 weightage.

- 15. List and explain the different types of system security challenges.
- 16. Explain the threats of virus and other malicious codes. Explain the working and controlling mechanism of viruses.
- 17. What do you mean by trusted operating systems? Explain the peculiarities of it.
- 18. Explain the importance of organizational security policy and how it can be effectively implemented.

 $(2 \times 5 = 10 \text{ weightage})$