

**MASTER OF SCIENCE
(INFORMATION SECURITY)
(MSCIS)**

Term-End Examination

June, 2026

MSE-031 : CYBER SECURITY USING PYTHON

Time : 3 Hours

Maximum Marks : 100

Note : (i) *Question No. 7 is compulsory.*

(ii) *Attempt any **four** questions from the rest of six questions.*

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1. (a) Describe the use of Indentation in python with rules to follow it. Justify your answer with the help of appropriate examples. 10
 - (b) Differentiate between break and continue statements in python. 10

2. (a) What is a file ? Explain various types of mode in file handling using python. 10
(b) Describe the use of PYQT5 framework in Python. 10
3. (a) List the reasons why python is considered to be one of the most secure programming languages for cyber security. 10
(b) What do you understand by Data Protection ? State the techniques by which data security may be achieved. 10
4. (a) Describe RSA public key cryptosystem. 10
(b) Explain operating system modules in python. 10
5. (a) Explain seven layers of OSI model TCP/IP protocol suite. 10
(b) Explain physical addresses, logical addresses and port addresses used on the Internet. 10

6. (a) What is the significance of socket programming in Python ? Write the syntax to create a socket, server socket, and client socket. 10
- (b) List some advanced Twitter search operators to find related tweets in search queries. 10
7. Write short notes on any *four* of the following in about **150** words each : $4 \times 5 = 20$
- (a) Web scraping
 - (b) OWASP top 10 vulnerabilities
 - (c) Sniffing protocols
 - (d) Client server architecture
 - (e) SEO strategies

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