

Roll No. 

Total No. of Pages: 01

Total No. of Questions: 07

B.Sc. (CYBER SECURITY), Semester-3<sup>rd</sup>

COMPUTER NETWORKS

Subject Code: UGCA 1913

M.Code: 92750

Date of Examination: 26-11-2025

Max. Marks:60

Time: 3 Hrs.

INSTRUCTIONS TO CANDIDATES:

1. SECTION-A is COMPULSORY consisting of TEN questions carrying TWO marks each.
2. SECTION-B consists of SIX questions, carrying TEN marks each and student have to attempt any FOUR questions.

Q. No.	Question	Course Outcome	Bloom's Level
<b>SECTION-A</b>			
1.	Answer briefly:		
a.	Define CSMA/CA.	CO1	L1
b.	Explain the concept of internetworking.	CO1	L2
c.	Define SLIP (Serial Line Internet Protocol).	CO2	L1
d.	List the advantages of FDM.	CO2	L2
e.	What is baseband transmission?	CO3	L1
f.	Explain the difference between MAN and WAN with examples.	CO3	L2
g.	What is the Session Layer?	CO4	L1
h.	Define TCP.	CO4	L2
i.	Name the functions of HTTP.	CO5	L1
j.	What is remote login?	CO5	L2
<b>SECTION-B</b>			
2.	Apply the leaky bucket and token bucket algorithm to control congestion ?	CO1	L3
3.	Examine whether combining OSI and TCP/IP features could lead to a more robust model.	CO2	L4
4.	Evaluate which routing algorithm (distance vector or link state) provides better network optimization.	CO4	L5
5.	Explain unguided medium in details with their range, advantages and disadvantages?	CO3	L5
6.	Apply the concept of CSMA/CD to explain how collisions are handled in Ethernet networks.	CO1	L3
7.	Analyze how email protocols (SMTP, POP, IMAP) function together for message delivery.	CO5	L4

**NOTE: Disclosure of Identity by writing Mobile No. or Making of passing request on any page of Answer Sheet will lead to UMC against the student.**

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B.Sc. (Cyber Security), Semester-3<sup>rd</sup>

PROGRAMMING IN PYTHON

Subject Code: UGCA 1914

M.Code: 92757

Date of Examination: 08-12-2025

Time: 3 Hrs.

Max. Marks:60

INSTRUCTIONS TO CANDIDATES:

1. SECTION-A is COMPULSORY consisting of TEN questions carrying TWO marks each.
2. SECTION-B consists of SIX questions, carrying TEN marks each and student have to attempt any FOUR questions.

Q. No.	Question	Course Outcome	Bloom's Level
<b>SECTION-A</b>			
1.	Answer briefly:		
a.	Define a Python identifier.	CO-1	L1
b.	Compare assignment operator (=) and the equality operator (==).	CO-1	L2
c.	State one primary limitation of Python as an interpreted language.	CO-2	L1
d.	Interpret how does Python support object-oriented programming?	CO-2	L2
e.	How do you access the last element of a list named 'my list'?	CO-3	L1
f.	Explain how nested control statements work.	CO-3	L2
g.	Name one standard module used for date and time operations.	CO-4	L1
h.	Explain the role of the 'finally' block in exception handling.	CO-4	L2
i.	Define the 'self' parameter.	CO-5	L1
j.	Explain Polymorphism & Inheritance in Python OOP.	CO-5	L2
<b>SECTION-B</b>			
2.	Apply conditional and looping structures to design a Python program for generating a student grade report.	CO-1	L3
3.	Examine the syntax and structural differences between Python's high-level control structures and their equivalents in Java or C, focusing on readability.	CO-2	L4
4.	Evaluate the use of sets in Python with suitable examples.	CO-3	L5
5.	Explain user defined exceptions and built in exceptions with suitable examples.	CO-4	L5
6.	Construct a program to compute the factorial of a given number.	CO-4	L3
7.	Analyze how encapsulation helps in maintaining data security in Python class design.	CO-5	L4

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