

# বিদ্যাসাগর বিশ্ববিদ্যালয় VIDYASAGAR UNIVERSITY

# **Question Paper**

# **B.Sc. Honours Examinations 2022**

(Under CBCS Pattern)

Semester - IV

**Subject: COMPUTER SCIENCE** 

Paper: GE 4-T

Full Marks: 40

Time: 2 Hours

Candidates are required to give their answers in their own words as far as practicable.

The figures in the margin indicate full marks.

# [ PROGRAMMING IN PYTHON ]

#### Group - A

Answer any four questions:

 $5 \times 4 = 20$ 

- 1. Explain the different types of operators in python.
- 2. How do define 'for' loop in python? What is the basic structure of a python program?

2+3

- 3. How to define a user defined function in python? What do you mean by list in python? 3+2
- 4. Write down the syntactic structure of a class in python. How to create objects and call the method of the class?

P.T.O.

5.	How to create a stack using array in python? Display the stack elements using pyth code?	non +2					
6.	What is local and global variable and how to declare them in python?	+2					
Group - B							
	Answer any <i>two</i> questions: $10 \times 2 = 20$						
7.	What are the key features of Python? What are the benefits of using Python?	+5					
8.	3. What are the common built-in data types in Python? What is self in Python? What is the difference between range & xrange?  4+3+3						
9.	What are docstrings in Python? What does this mean: *args, **kwargs? And why wo we use it? What are negative indexes and why are they used? 2+(4+2)						
10.	What advantages do NumPy arrays offer over (nested) Python lists? What is the process compilation and linking in python?	s of 3+5					
	P.	Г.О.					

#### OR

# [ PROGRAMMING IN VB/GAMBAS ]

#### Group - A

Answer any *four* questions:

 $5 \times 4 = 20$ 

- 1. What is an object, properties and methods in VB?
- 2. Describe any four features of VB.
- 3. Explain difference between single document and MDI.
- 4. What is DLL in VB?
- 5. Explain combo box control.
- 6. What is select case? Write its code.

# Group - B

Answer any *two* questions:

 $10 \times 2 = 20$ 

- 7. Explain different data types in VB.
- 8. Explain all looping statements in VB with suitable example.
- 9. Explain pass by value and pass by reference in procedure in VB.
- 10. Explain common dialog control with its methods and properties with example.

P.T.O.

**OR** 

#### [INFORMATION SECURITY AND CYBER LAWS]

#### Group - A

Answer any *four* questions :

 $5 \times 4 = 20$ 

- 1. Write the major needs of Cyber Laws for data protection and privacy?
- 2. Explain with suitable example about Web hijacking and Web defamation.
- 3. Distinguish between E-mail spoofing and E-mail bombing.
- 4. What is Digital Signature Certificate? Define Online Dispute Resolution (ODR) 3+2
- 5. Write a short note on the essence of digital contracts.
- 6. Explain with example about denial of service attack.

# Group - B

Answer any two questions:

 $10 \times 2 = 20$ 

- 7. Write the punishment for Cyber Fraud, Spoofing and Intellectual Property Crimes under the IT Act. 3+3+4
- 8. Define the following cyber-crimes:

 $2 \times 5 = 10$ 

Cyber stalking

Cyber terrorism

Salami attack

Online gambling

Cyber pornography

9. Discuss about the License of Copyright. Write the punishment under the IT Act, 2000.

5+5

10. What are vulnerabilities? Name any two vulnerabilities.

Describe the term phishing and pharming with the help of an example.

5+5