



বিদ্যাসাগর বিশ্ববিদ্যালয়  
**VIDYASAGAR UNIVERSITY**  
**Question Paper**

**B.Sc. General Examinations 2020**

(Under CBCS Pattern)

**Semester - I**

**Subject: COMPUTER SCIENCE**

**Paper : DSC 1A/2A/3A-T & DSC 1A/2A/3A-P**  
**(Problem Solving using Computers)**

**Full Marks : 60 (Theory - 40 + Practical - 20)**

**Time : 3 Hours**

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

*The figures in the margin indicate full marks.*

**[ THEORY ]**

Answer any *two* questions :

2 × 20 = 40

- (a) With the help of a neat diagram explain the basic organization of digital computer?  
(b) What do you mean by the term 'Error'? Briefly describe the different types of errors in programming?  
10+(2+8)
- Explain any five built-in functions in Python with suitable examples. 20
- What is Tuple in Python? How to create it? Explain any four tuple operators?  
3+3+14

4. Define Dictionary in Python? How to create, update and delete it? Explain with suitable example. [5+15]

**Paper - DSC 1A-P**  
**(Software Lab using Python)**  
**(Practical)**

Answer any *one* following question :

1 × 20 = 20

1. Write a program to calculate total marks, percentage and grade of a student. Marks obtained in each of the three subjects are to be input by the user. Assign grades according to the following criteria :  
  
Grade A : Percentage  $\geq 80$   
  
Grade B : Percentage  $\geq 70$  and  $< 80$   
  
Grade C : Percentage  $\geq 60$  and  $< 70$   
  
Grade D : Percentage  $\geq 40$  and  $< 60$   
  
Grade E : Percentage  $< 40$
  2. Write a menu-driven program, using user-defined functions to find the area of rectangle, square, circle and triangle by accepting suitable input parameters from user.
  3. Write a program to find factorial of the given number.
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