

Guess Paper – 2014
Class – XI
Subject – Computer Science

TIME 2 ½ Hrs.

M.M 50

SET A

Instructions:--

- (1) All questions are compulsory.
- (2) Programming Language: Python

- 1**
- (a)** Define IPO cycle in computer with example (1)
 - (b)** What is computer? (1)
 - (c)** Differentiate between data and information? (1)
 - (d)** What are the logical units of CPU? Explain them with their working? (2)
 - (e)** Identify the generations of computer to which the following elements belongs to: (2)
i). Transistor ii). Vacuum Tubes iii). VLSI circuits iv). Parallel Processing
- 2**
- (a)** What are wild card characters? How do they help us in working with computer? Explain with example? (2)
 - (b)** How can software be categorized? Name at least one software in each category? (1)
 - (c)** Differentiate between compiler and Interpreter? (2)
 - (d)** Convert $(35.26)_{10}$ into its equivalent binary form? (1)
 - (e)** Complete the sequence of following hexadecimal numbers: (1)
17, 18, 19, _____, _____
- 3**
- (a)** Find the two's complement for (1)
i). 78 ii). -45
 - (b)** What is Unicode and how is it useful? (1)
 - (c)** What is difference between CISC and RISC computers? (1)
 - (d)** What is Von Neumann architecture? Did it influence making of computer? How? (2)
 - (e)** Write the coded version of Hello? (1)
- 4**
- (a)** Who is the developer of Python Language? Also list the benefits of using this programming language? (2)

(b) In how many different ways, can you work in Python? Explain them with their benefits and drawbacks? **(2)**

(c) What will following code evaluate to: **(1)**
i). `7 -- 7 -- 7` ii). `4 < 3 or 6 < 7`

(d) Write a program in python that inputs the monthly income of an employee and calculates AnIncome (Annual Income) and Taxpaid (Taxtobepaid), where Taxpaid is calculated on the basis of the following conditions := **(2)**

AnIncome	Taxrate (%)
<code>> = 600000</code>	8
<code>> = 300000 and < 600000</code>	6
<code>> = 150000 and < 300000</code>	2
<code>< 150000</code>	0

(e) `x=45` **(1)**
`y=12`
`z=float(x)/y`

Which concept is reflected in assignment statement given above? What is its significance? Explain.

5 (a) Write a program to accept 3 numbers from the user and print them in descending order? (Eg if a=5,b=10 and c=8 then output should be 10 , 8 and 5) **(2)**

(b) Write a program to print the following series:- **(2)**

```
1
2   3
4   5   6
7   8   9   10
```

(c) What are non printable or non graphic characters in python? Where are they used? Explain them with suitable example? **(2)**

(d) Write a program to accept a number from the user and check whether it is Prime or not? **(2)**

(e) Write a program to accept a number from the user and print Fibonacci series up to that term? (Eg if user enters 7 then output should be 0 1 1 2 3 5 8) **(2)**

6 (a) What would be output of the following code? **(1)**

```
i = 6
while i >= 0:
    for j in range (1, i):
        print j,
    print
    i+=1
```

(b) Construct a logical expression to represent each of the following conditions: **(1)**

(i) Score is greater than or equal to 80 but less than 90

(ii) Answer is either "N" or "n"

(c) Write a program to accept a number from the user and check whether it is Armstrong or not? (Hint Any number whose sum of cube of digit is equal to original number is Armstrong number?) Eg 153 (2)

(d) Check whether the following statements are correct or wrong? If they are wrong give reason for the same? (3)

i). `break = 10`

ii). `val+1 = 12.25`

iii). `contact_no=9876543210`

7 (a) What will the following command result in (1)
i). `print type('True')`

(b) If `p=0.5` and `q=12.79`, Then what would be the output of the following statement? (1)
`>>> not q or p`

(c) What will be the output of the following code (1)
`a = 20`
`a + 1`
`print a`

(d) What would be the output after evaluating the following expression? (1)
`-4 * -2 ** 3 + len(str(6))`

(e) What would be the output after evaluating the following expression? (1)
`int(10.78)/3 < len('10.78')`

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