

Common Annual Examination [2018-19]

Subject: Information Practices (Theory)

XI class

Time Allowed: 3:00 hrs.

Max. Marks: 70

- All the questions are compulsory.
- Programming Language Python.
- The paper have four sections Section A, Section B, Section C, Section D
 - Section A has 10 questions carrying 1 marks each.
 - Section B has 15 questions carrying 2 marks each.
 - Section C has 6 questions carrying 3 marks each.
 - Section D has 2 questions carrying 6 marks each.

Section A

- 1) What is cyber bullying?
- 2) What are the advantages of SQL?
- 3) What is the difference between RAM and ROM?
- 4) What does a cross platform language mean?
- 5) Arrange the following in ascending order of memory capacity:
TB, Byte, KB, PB, MB, GB
- 6) Give the full form of EEPROM
- 7) Is python a compiled or an interpreted language?
- 8) What is MongoDB.
- 9) Which Loops are supported by python?
- 10) What is the use of math.tan(x)?

Section B

- 11) List the differences between Series and DataFrame in python pandas.
- 12) What is the difference between input() and raw_input()? Explain with example.
- 13) Write the output of following program

```
a=10
b=20
b=b+a
print "a=",a, "b=",b
```
- 14) How can you define a function in Python? Give proper syntax.
- 15) Draw a labeled diagram of basic computer system.
- 16) Identify Errors in the following lines of codes(Underline each correction)

```
def sin(x,n) #line 1
sine=0
for (i in range [n]):
sine=(-1)*i**I # line 2
sine=sine +((x**(2.0*i-1))/factorial1(2**i-1))*sign
return sine
```
- 17) Differentiate between a syntax error and a semantic error with example.
- 18) Convert the following:
 - (i) $(4A)_{16} = (\quad)_{2}$
 - (ii) $(106)_{10} = (\quad)_{8}$

- 19) Write the syntax of the packages used to import python pandas?
- 20) Write two features of Operating System.
- 21) Write the output produced by this program below.
- ```
x=3
If x!=2:
print 'First'
else :
print 'Second'
if 2>x: print 'Third'
print 'Fourth'
print 'Fifth'
```
- 22) What are datatypes in python? Give an example.
- 23) What are Global Variables? What is their scope in program?
- 24) What is DDL? List the commands used in DDL.
- 25) Write the developer of python with year of establishment.

### Section C

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- 26) Draw a flowchart to calculate smallest of three entered numbers.
- 27) Write short note on Generation of Computers.
- 28) What is the difference between lists, tuples and dictionaries? Give an example for their usage.
- 29) Define eavesdropping, phishing and cyber bullying .
- 30) Write a program to create a series from list data type with an example
- 31) Answer the question based on the table given below:

**TABLE : Student**

| Column Name | Data Type | Size | Constraint                |
|-------------|-----------|------|---------------------------|
| Roll_No     | NUMBER    | 4    | PRIMARY KEY               |
| Name        | VARCHAR   | 20   | Not Null                  |
| Stipend     | NUMBER    | 7    | Stipend is greater than 0 |
| Stream      | VARCHAR   | 15   | Not Null                  |
| Grade       | VARCHAR   | 1    |                           |

- (i) Write the SQL command to create the above table with constraints.
- (ii) Insert 2 records with relevant information, in the table student
- (iii) Display all the records of the table Student.

### Section D

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- 32) What are the types of software in computer system and organization? Explain and give an example of each.
- 33) Attempt any two python programs given below:
- Fibonacci Series
  - Factorial of a number
  - Palindrome of a string