

Maximum Marks: 35

Time Allowed: 90 Minutes

General Instructions:

- The question paper is divided into 3 Sections - A, B and C.
- Section A, consist of 25 Questions (1-25). Attempt any 20 questions.
- Section B, consist of 24 Questions (26-49). Attempt any 20 questions.
- Section C, consist of 6 case study based Questions (50-55). Attempt any 5 questions.
- All questions carry equal marks.

Section-A

Q1. Find the invalid identifier from the following

- a) none b) address c) Name
s d) Pass

Q2. When we convert 10010 binary numbers to decimals. Then the solution is :

- a) 2010 b) 1810 c) 1410 d) 1610

Q3. How many bits are in 1 byte?

- a) 1024 b) 10 c) 8 d) 16

Q4. How real numbers are stored by the computer?

- a) Floating Point Representation using Mantissa and Exponent
- b) ASCLL
- c) Binary
- d) Floating Boat Representation

Q5. How many unique symbols in the Hexadecimal number system?

- a) 16 c) 10
b) 12 d) 8

Q6. How many bytes are in 1 kilobyte?

- a) 90 c) 8
b) 145 d) 1024

Q7. IQ of a computer is –

- [illegible]

Q8. The ALU performs which arithmetical operation?

- a) (+ , - , * , /)
b) (& , || , &&)
c) (< , > , = , > = , < =)
d) All of these
e)

Q9. Smallest unit of memory is?

- a) Bit c) Kilobyte
b) Megabyte d) byte

Q10. How many bit form a byte?

- a) 32 bit c) 8 bit
b) 16 bit d) 4 bi

Q11. Which one of the following keys is used to refresh the active window?

- [illegible]

Q12. Which is not application software?

- a) Photoshop c) Page Maker
b) Winward XP d) Window NT

Q13. Microsoft Windows is an :

- a) Database program c) Graphic program
- b) Word processing d) Operating system

Q14. Which of the following device can store large amounts of data?

- a) Zip Disk c) Hard Disk
b) CD ROM d) Floppy Disk

Q15. Firewire is a :

- a) Microsoft computer c) Android computer
- b) Apple computer d) None of these

Q16. Which one is a non – impact printer?

- a) Drum printer c) Thermal printer
b) Dot printer d) Line printer

Q17. A microprocessor is also known as :

- a) GPU c) CPU
b) Harddisk d) None of these

Q18. Which device permanently store memory?

- a) RAM c) ROM
- b) Static RAM d) None of these

Q19. What is the full form of CRT?

- a) Cathode ray technology b) Cathode ray tube

- c) Current ray technology

Q20. Which of the following does not represent an I O device?

- a) ☐ ALU
b) ☐ ALU
c) ☐ Mouse
d) ☐ CPU
e) ☐ Speaker which beeps

Q21. Who can display information on a computer?

- a) Screen c) Both a and b
- b) Monitor d) None of these

Q22. Which one is an output device?

- a) Monitors c) Mouse
- b) Microphone d) Keyboard

Q23. The input unit is responsible for accepting –

- a) Output c) Input
- b) Input and Output d) None of these

Q24. An organized way of representing numbers is called?

- a) Character System c) Integer System
b) Number system d) None of these

Q25. How real numbers are stored by the computer?

- a) Floating Point Representation using Mantissa and Exponent
- b) ASCII
- c) Binary
- d) Floating Point Representation

Section-B

Q26. Is Python case sensitive when dealing with identifiers?

- a) yes
b) No
c) machine dependent
d) none of the mentioned

Q27. What is the maximum possible length of an identifier?

- a) 31 characters c) 79 characters
- b) 63 characters d) none of the mentioned

Q28. Which of the following is invalid?

- a) `_a = 1`
b) `a = 1`
- c) `__str__ = 1`
d) none of the mentioned

Q29. Which of the following is an invalid variable?

- a) my_string_1 c) foo
- b) 1st_string d) _

Q30. All keywords in Python are in

- a) lower case
b) UPPER CASE
c) Capitalized
d) None of the mentioned

Q31. Which of the following is an invalid statement?

- a) $abc = 1,000,000$
c) $a,b,c = 1000, 2000, 3000$
- b) $a\ b\ c = 1000\ 2000\ 3000$
d) $a\ b\ c = 1,000,000$

Q32. Which of the following is not a keyword?

- a) eval c) nonlocal
b) assert d) pass

Q33. What will be the output of the following Python code?

```
>>>str="hello"
>>>print(str)
```

- a) He c) Olleh
b) Lo d) Hello
-
- QUESTION 70

Q34. What is the return type of function id?

- [illegible]

Q35. What is the average value of the following Python code snippet?

```
>>> grade1 = 80
>>> grade2 = 90
>>> average = (grade1 + grade2) / 2
```

- a) 85.0 c) 95.0
b) 85.1 d) 95.1

Q36. Select option that print. hello-how-are-you

- a) `print('hello','how','are','you')` c) `print('hello-'+ 'how-are-you')`
b) `print('hello','how','are','you'+ '-'*4)` d) `print('hello'+ '-'+'how'+ '-'+'are'+ 'you')`

Q37. Which is the correct operator for power(x^y)?

- a) $X^{\wedge}y$ c) $X^{\wedge\wedge}y$
b) $X^{**}y$ d) None of the mentioned

Q38. Which one of these is floor division?

- a) / c) %
b) // d) None of the mentioned

Q39. What is the answer to this expression, $22 \% 3$ is?

- a) 7

b) 1
- c) 0

d) 5

Q40. Operators with the same precedence are evaluated in which manner?

a) Left to Right

b) Right to Left

c) Can't say

d) None of the mentioned

Q41. What is the output of this expression, 3*1**3?

a) 27

b) 9

c) 3

d) 1

Q42. Which one of the following has the highest precedence in the expression?

a) Exponential

b) Addition

c) Multiplication

d) Parentheses

Q43. What is the output of print 0.1 + 0.2 == 0.3?

a) True

b) False

c) Machine dependent

d) Error

Q44. Which of the following is not a complex number?

a) $k = 2 + 3j$

b) $k = \text{complex}(2, 3)$

c) $k = 2 + 3l$

d) $k = 2 + 3J$

Q45. What does 3^4 evaluate to?

a) 81

b) 12

c) 0.75

d) 7

Q46. What will be the value of the following Python expression?

4 + 3 % 5

- a)4

b)7
- c)2

d) 0

Q47. Which of the following operators has its associativity from right to left?

a) +

b) //

c) %

d) **

Q48. What will be the value of x in the following Python expression?

x = int(43.55+2/2)

- a) 43

b) 44
- c) 22

d) 23

Q49. What are the values of the following Python expressions?

2**(3**2)
(2**3)**2
2**3**2

- a) 64, 512, 64

b) 64, 64, 64
- c) 512, 512, 512

d) 512, 64, 512

Section-C

Q50. What will be the output of the following Python expression?

print(4.00/(2.0+2.0))

- a) Error

b) 1.0
- c) 1.00

d) 1

Q51. What will be the output of the following Python statement?

>>>"a"+"bc"

- a) a

b) bc
- c) bca

d) abc

Q52. What will be the output of the following Python code?

>>>print (r"\nhello")

- a) a new line and hello

b) \nhello
- c) the letter r and then hello

d) error

Q53. What will be the output of the following Python statement?

>>>print('new' 'line')

- a) Error

b) Output equivalent to print 'new\nline'
- c) newline

d) new line

Q54. Output ?

```
if (4 + 5 == 10):
    print("True")
else:
    print("False")
print("True")
```

- a) True

b) True
False
- c) False
True

d) True
False
True

Q55. What will be the output of the following Python code snippet?

not(3>4)
not(1&1)

- a) True

b) True
- c) False

d) False
- True

False

True

False

Computer Science Class XI

Syllabus

- Basic Computer Organization: Introduction to computer system, hardware, software, input device, output device, CPU, memory (primary, cache and secondary), units of memory (Bit, Byte, KB, MB, GB, TB, PB)
- Types of software: system software (operating systems, system utilities, device drivers), programming tools and language translators (assembler, compiler & interpreter), application software
- Operating system (OS): functions of operating system, OS user interface
- Number system: Binary, Octal, Decimal and Hexadecimal number system; conversion between number systems.
- Introduction to problem solving: Steps for problem solving (analyzing the problem, developing an algorithm, coding, testing and debugging). representation of algorithms using flow chart and pseudo code, decomposition
- Familiarization with the basics of Python programming: Introduction to Python, features of Python, executing a simple "hello world" program, execution modes: interactive mode and script mode, Python character set, Python tokens (keyword, identifier, literal, operator, punctuator), variables,
- Knowledge of data types: number (integer, floating point, complex), Boolean, sequence (string, list, tuple), none, mapping (dictionary), mutable and immutable data types
- Operators: arithmetic operators, relational operators, logical operators, assignment operator, augmented assignment operators, identity operators (is, is not), membership operators (in, not in)
- Expressions, statement, type conversion & input/output: precedence of operators, expression, evaluation of expression, python statement, type conversion (explicit & implicit conversion), accepting data as input from the console and displaying output