VARIABLE & DATA TYPE - Answers with Short Explanation

Q1. Ans: C

Explanation: Variable stores data value in memory.

Q2. Ans: D

Explanation: x = 4 assigns a value to variable.

Q3. Ans: B

Explanation: '#' is used for single-line comment.

Q4. Ans: B

Explanation: Names can include letters, numbers, underscores; cannot start with digit.

Q5. Ans: B

Explanation: x, y = y, x swaps values directly.

Q6. Ans: B

Explanation: Tuple is immutable in Python.

Q7. Ans: B

Explanation: 10 + 5 = 15.

Q8. Ans: B

Explanation: type() returns the data type.

Q9. Ans: B

Explanation: Global variable accessible throughout module.

Q10. Ans: A

Explanation: int(string) converts string to integer.

Q11. Ans: C

Explanation: isinstance(var, int) checks variable type.

Q12. Ans: B

Explanation: // operator gives integer division result 2.

Q13. Ans: B

Explanation: Strings concatenate using +.

Q14. Ans: C

Explanation: x[1:4] gives 'ell'.

Q15. Ans: A

Explanation: max() finds maximum value.

Q16. Ans: A

Explanation: len(list) gives number of elements.

Q17. Ans: A

Explanation: Use 'key in dictionary' to check key presence.

Q18. Ans: A

Explanation: enumerate() returns index and value.

Q19. Ans: B

Explanation: Filter returns even numbers [2,4].

Q20. Ans: A *Explanation: len(list) returns length of list.*
Explanation: ''.join(list) combines list into string.

Q21. Ans: A

Q22. Ans: A
Explanation: int(number) converts float to int.

Q23. Ans: C
Explanation: Triple quotes create multiline string.

Q24. Ans: A
Explanation: {key: value for key, value in iterable} creates dictionary comprehension.

Q25. Ans: B
Explanation: __dict__ gives class or module attributes.

Q26. Ans: C
Explanation: true is reserved keyword.

Q27. Ans: C
Explanation: char isn't a Python data type.

Q28. Ans: D
Explanation: {} is dictionary type.

Q29. Ans: B
Explanation: Percentage uses float.

Q30. Ans: A
Explanation: Adds new key-value to dictionary.

Q31. Ans: A
Explanation: print(list1.pop) prints method reference.

Q32. Ans: D
Explanation: append() adds at end of list.

Q33. Ans: C
Explanation: 2 == 2.0 is True.

Q34. Ans: C
Explanation: Complex number type is complex.

Q35. Ans: C
Explanation: int(3.9) gives 3.

Q36. Ans: A
Explanation: Concatenation gives Python.py.

Q37. Ans: B
Explanation: Sets are unordered, no indexing.

Q38. Ans: B
Explanation: int('4.5') causes ValueError.

Q39. Ans: A
Explanation: name[1:5] → 'ello'.

Q40. Ans: A
Explanation: Sets display unordered unique elements.

Q41. Ans: C
Explanation: Prints 25 then 50 (local vs global).

Q42. Ans: A
Explanation: x=x+1 causes error since x undefined locally.

Q43. Ans: D
Explanation: 0xFF is integer literal.

Q44. Ans: B, C

Explanation: Both B and C valid string definitions.

Q45. Ans: C

Explanation: Slice returns tuple.

Q46. Ans: D

Explanation: Zero is False; others True.

Q47. Ans: B

Explanation: x inside func not global → NameError.

Q48. Ans: B

Explanation: {} is dict, not set.

Q49. Ans: D

Explanation: Use 'global x' then assign x=20.

Q50. Ans: A, B, C, D

Explanation: All valid string creations.

Q51. Ans: C

Explanation: type(range(5)) returns 'range'.

Q52. Ans: C

Explanation: type(10) returns int.

Q53. Ans: A

Explanation: x=5 is integer.

Q54. Ans: B

Explanation: type(x) → str.

Q55. Ans: C

Explanation: Strings store characters.

Q56. Ans: C

Explanation: x=3.14 → float.

Q57. Ans: D

Explanation: Dictionary uses key-value pairs.

Q58. Ans: A

Explanation: 10 + int('20') = 30.

Q59. Ans: D

Explanation: List is mutable.

Q60. Ans: A

Explanation: {'apple',...} → set.

Q61. Ans: C

Explanation: Set stores unique unordered items.

Q62. Ans: B

Explanation: dict type.

Q63. Ans: D

Explanation: True → Boolean.

Q64. Ans: A

Explanation: List type.

Q65. Ans: A

Explanation: List uses numeric index.

Q66. Ans: C

Explanation: Strings concatenated with '+'.

Q67. Ans: B

Explanation: Tuple immutable.

Q68. Ans: B

Explanation: str(x)+y='1020'.

Q69. Ans: A

Explanation: Copy unaffected → [1,2,3].

Q70. Ans: B

Explanation: x & y gives common {'b','c'}.

Q71. Ans: B

Explanation: Swapped → 20 10.

Q72. Ans: A

Explanation: Merging dicts keeps latest keys.

Q73. Ans: C

Explanation: String holds characters.

Q74. Ans: A

Explanation: After clear() → empty set {}.

Q75. Ans: D

Explanation: Boolean stores True/False.

Q76. Ans: C

Explanation: upper() → HELLO.

Q77. Ans: D

Explanation: Dictionary stores key-value pairs.

Q78. Ans: B

Explanation: replace() changes first l → helLo.

Q79. Ans: B

Explanation: Tuple with list inside → (1,2,[5,4]).

Q80. Ans: D

Explanation: No key → Error.

Q81. Ans: C

Explanation: Set = unique unordered collection.

Q82. Ans: A

Explanation: Copy unaffected → [1,2,3].

Q83. Ans: A

Explanation: Original unchanged → John.

Q84. Ans: A

Explanation: pop() removes random element.

Q85. Ans: A

Explanation: List indexed numerically.

Q86. Ans: A

Explanation: insert(1,4) → [1,4,2,3].

Q87. Ans: B

Explanation: x-{'b'} removes b.

Q88. Ans: A

Explanation: add(4) adds element.

Q89. Ans: A

Explanation: [1,2,3] → List.

Q90. Ans: A

Explanation: List is ordered and mutable.