

Circle the right answers (-0.25 incorrect answer, -0.25 two erasures):

1.What does the break statement do in a loop?

- A) Continues to the next iteration
- B) Exits the loop immediately**
- C) Restarts the loop
- D) Skips a line

2.How do you remove an element from a list?

- A) delete()
- B) popitem()
- C) remove()**
- D) erase()

3.What does list generator [x2 for x in list if x%2!=0] create?**

- A) List of even numbers squared
- B) List of even numbers
- C) List of odd numbers squared**
- D) List of numbers divided by two

4.Which function adds a new key-value pair to a dictionary?

- A) add()
- B) insert()
- C) put()
- D) update()**

5.What does dict.pop("sort") do?

- A) Adds a new key
- B) Deletes the key**
- C) Updates value
- D) Lists all keys in order

6.What does np_array.shape return?

- A) Array size
- B) Array type
- C) Array dimensions**
- D) Array sum

7.In Python OOP, what does self refer to?

- A) The class itself
- B) The current module
- C) The current object**
- D) Parent class

8.What does a decorator in Python generally modify?

- A) Class behavior
- B) Function behavior**
- C) Variable behavior
- D) Object behavior

9.How do you create a tensor in PyTorch?

- A) tensor = torch.array()
- B) tensor = torch.vector()
- C) tensor = torch.tensor()**
- D) tensor = np.tensor()

10.Which device setting in PyTorch allows using GPU?

- A) device = "cuda"
- B) device = "gpu"
- C) device = torch.device.use_cuda()
- D) device = torch.device("cuda")**

11.Which module is imported to use Prolog in Python?

- A) swipl
- B) pyprolog
- C) pyswip**
- D) prologpy

12.What does prolog.assertz("father(ahmed,mohamed)") do?

- A) Adds a fact**
- B) Queries a fact
- C) Deletes a fact
- D) Prints a fact

13.In Prolog, the symbol _ represents:

- A) An anonymous fact
- B) An anonymous variable**
- C) An anonymous constant
- D) An anonymous predicate

14.When is a Prolog rule considered successful?

- A) When all sub-goals are satisfied**
- B) When some sub-goals are satisfied
- C) When all sub-facts are satisfied
- D) When some sub-facts are satisfied

15.The CUT ! affects:

- A) Backtracking behavior**
- B) Fact definition
- C) Rule writing
- D) Rule-base definition

16.Which principle does Prolog use for negations?

- A) Logical contradiction
- B) Classical negation
- C) Negation by failure**
- D) Negation by success

17.In Prolog reasoning, each node of the tree corresponds to:

- A) A list of goals**
- B) A final answer
- C) A fact
- D) A list of rules

18.What search strategy does Prolog use?

- A) Breadth-first search
- B) Depth-first with backtracking**
- C) A* search
- D) Greedy search

19.How does Prolog treat variables?

- A) As already known values
- B) As constants to substituted
- C) As unknowns to be found**
- D) As predicates to prove

20.What happens when Prolog processes a negation and the goal succeeds?

- A) Negation succeeds
- B) Negation fails**
- C) Rule succeeds
- D) Rule fails