

Worksheet on DataFrame Operations in Python

Answer the following questions. Each question carries one mark. (One line space is provided for each answer.)

Q1. Display the first two rows of the DataFrame.

Name	Age	City
Amit	25	Delhi
Bina	30	Mumbai
Chetan	22	Chennai
Divya	28	Kolkata

Answer: _____

Q2. Display the last row of the DataFrame.

Product	Price	Stock
Pen	10	100
Pencil	5	200
Book	50	150
Eraser	8	300

Answer: _____

Q3. Show only the 'Name' column from the DataFrame.

ID	Marks	Subject
101	88	Math
102	76	Science
103	90	English
104	85	History

Answer: _____

Q4. Display names of people older than 25.

EmpID	Salary	Dept
1	25000	IT
2	30000	HR
3	28000	Finance
4	35000	IT

Answer: _____

Q5. Add a new column 'Bonus' with value 1000.

Name	Age	City
Amit	25	Delhi
Bina	30	Mumbai
Chetan	22	Chennai
Divya	28	Kolkata

Answer: _____

Q6. Display only 'Product' and 'Price' columns.

Product	Price	Stock
Pen	10	100
Pencil	5	200
Book	50	150
Eraser	8	300

Answer: _____

Q7. Show products with price greater than 10.

ID	Marks	Subject
101	88	Math
102	76	Science
103	90	English
104	85	History

Answer: _____

Q8. Display total stock of all products.

EmpID	Salary	Dept
1	25000	IT
2	30000	HR
3	28000	Finance
4	35000	IT

Answer: _____

Q9. Sort the DataFrame by 'Marks' column.

Name	Age	City
Amit	25	Delhi
Bina	30	Mumbai
Chetan	22	Chennai
Divya	28	Kolkata

Answer: _____

Q10. Find the average marks of all students.

Product	Price	Stock
Pen	10	100
Pencil	5	200
Book	50	150
Eraser	8	300

Answer: _____

Q11. Show the highest salary from the DataFrame.

ID	Marks	Subject
101	88	Math
102	76	Science
103	90	English
104	85	History

Answer: _____

Q12. Display details of employees in IT department.

EmpID	Salary	Dept
1	25000	IT
2	30000	HR
3	28000	Finance
4	35000	IT

Answer: _____

Q13. Rename column 'Dept' to 'Department'.

Name	Age	City
Amit	25	Delhi
Bina	30	Mumbai
Chetan	22	Chennai
Divya	28	Kolkata

Answer: _____

Q14. Display number of rows and columns in DataFrame.

Product	Price	Stock
Pen	10	100
Pencil	5	200
Book	50	150
Eraser	8	300

Answer: _____

Q15. Select rows where 'City' is 'Delhi'.

ID	Marks	Subject
101	88	Math
102	76	Science
103	90	English
104	85	History

Answer: _____

Q16. Find minimum price of product.

EmpID	Salary	Dept
1	25000	IT
2	30000	HR
3	28000	Finance
4	35000	IT

Answer: _____

Q17. Add a new column 'Discount' = Price * 0.1

Name	Age	City
Amit	25	Delhi
Bina	30	Mumbai
Chetan	22	Chennai
Divya	28	Kolkata

Answer: _____

Q18. Count total number of entries in 'Subject' column.

Product	Price	Stock
Pen	10	100
Pencil	5	200
Book	50	150
Eraser	8	300

Answer: _____

Q19. Drop the column 'Bonus' from DataFrame.

ID	Marks	Subject
101	88	Math
102	76	Science
103	90	English
104	85	History

Answer: _____

Q20. Display only even 'EmpID' rows.

EmpID	Salary	Dept
1	25000	IT
2	30000	HR
3	28000	Finance
4	35000	IT

Answer: _____

Answer Key

1. `df.head(2)`
2. `df.tail(1)`
3. `df['Name']`
4. `df[df['Age'] > 25]`
5. `df['Bonus'] = 1000`
6. `df[['Product', 'Price']]`
7. `df[df['Price'] > 10]`
8. `df['Stock'].sum()`
9. `df.sort_values('Marks')`
10. `df['Marks'].mean()`
11. `df['Salary'].max()`
12. `df[df['Dept']=='IT']`
13. `df.rename(columns={'Dept':'Department'}, inplace=True)`
14. `df.shape`
15. `df[df['City']=='Delhi']`
16. `df['Price'].min()`
17. `df['Discount'] = df['Price']*0.1`
18. `df['Subject'].count()`
19. `df.drop('Bonus', axis=1)`
20. `df[df['EmpID'] % 2 == 0]`