

Question Bank

SDAI

CT2

July 2026

Q1) 1) Explain with an example what "Excluding unmatched observation" means.
 2) How do you achieve merging two datasets like "inner join in SQL"? Explain with example.

Q2) A dataset "old_marks" contains the following values:

ID	Name	M1	M2	M3
101	Anu	65	70	75
102	Bob	55	60	65
103	Carol	85	90	95

Add 5 marks to each subject for all students and display the new dataset "new_marks". Write the SAS program using array.

Q3) a) Explain with an example how to match-merge two datasets in SAS where one dataset contains ID and name while another dataset contains ID and Score.
 b) In a salary dataset, a programmer named the salary variable as "Sal". Write with example how to modify the "Sal" variable to "Salary"

Q4) An employee_data dataset has two variables: EmpID and Salary. Assume it has two observations: (101, 30000) and (102, 40000). Write a SAS program to iteratively process the dataset to fill a new dataset "projection" with a new variable year and salary increasing by 1.1 times every year. Just show a sample output table (values need not be accurate)

Q5) A university wants to automate student result processing using SAS. Explain how a) DO loops b) DO WHILE and c) DO UNTIL can be used to process and present student data efficiently. Illustrate each concept with suitable SAS programs.

Q6) A retail company maintains separate SAS data sets for customer details and purchase records. Demonstrate using suitable SAS programs: a) One-to-One Reading b) Concatenation and c) Match-Merging.

Q7) Demonstrate how to filter and group observations in SAS by writing code that utilizes WHERE, IF, BY, CLASS, and GROUP statements on a target dataset.

Q8) Differentiate between WHERE and subsetting IF statements in terms of compilation vs. execution processing in SAS. Summarize how group-processing variables operate when using BY and CLASS statements across data steps and procedures.

- Q1) 1) Explain a SAS function with a general syntax.
2) List any 2 important SAS function rules.
3) List any 3 types of SAS functions with 1 example.

Q2) Apply PROC MEANS to calculate descriptive statistics such as N, MEAN, MEDIAN, STD, MIN, and MAX for student marks. Take a sample size of 4 and write a SAS program.

Q3) Write SAS code to read DateOfBirth and LoginTime, from raw data and display them correctly. Assume the following data:

Name, DOB, LoginTime

Anu 15-AUG-2002 09:45:30

Bala 20-JAN-1998 14:20:15

Q4) Explain the purpose of PROC FREQ in SAS. Create one-way frequency tables for Gender and Department, and interpret the frequency and percentage columns

Q5) a) Explain Output Delivery System (ODS) in SAS with syntax?

b) Write sample SAS code to export PROC PRINT Output to HTML

c) Write sample SAS code to export to Excel

Q6) a) Distinguish INPUT and PUT functions for data conversion in SAS.

b) Write a SAS program to explain INPUT function.

c) Write a SAS program to explain PUT function.

Q7) Compare the default output generated by PROC PRINT with the customized output produced by PROC REPORT. Explain how COLUMN and DEFINE statements alter report structure and layout using a sample dataset scenario.

Q8) Apply the variable usage types in PROC REPORT (DISPLAY, ORDER, GROUP, ANALYSIS, COMPUTED, and ACROSS) by constructing a SAS program that formats and summarizes a sample business or clinical dataset.

Q1) For the given data, write a SAS program using PROC REPORT to display the Sales - grouping by Region. Display the heading for Region as "Reg", Product as "Prod" and format Sales prefix.

Region	Product	Sales
North	A	1200
North	B	1500
South	A	1800
South	B	2000

Q2) Distinguish between Global Macro Variable and Local Macro Variable Scopes in SAS. Give examples for both.

Q3) For the given statistical data, construct executable SAS code using PROC SGPLOT to build a bar chart, a box plot, and a line plot. X`

Visit	Patient	Weight
1	101	65
2	101	67
3	101	66
1	102	70
2	102	72
3	102	74

Q4) Classify spaghetti, survival, waterfall, and forest plots according to their primary analytical objectives and specialized applications in data analytics.

2) Explain SAS Macro Processing flow.

Q5) Construct executable SAS code using PROC SGPLOT to build a bar chart, a box plot, and a line plot from a given statistical dataset.

Q6) Interpret the visual components and statistical properties of bar charts, box plots, and line plots. Explain how each plot type highlights specific trends, distributions, or summaries in statistical data analysis.

Q7) Illustrate the flow of code processing within the SAS Macro Facility during compilation and execution, highlighting how macro variables and macro expressions alter program flow.

Q8) Construct a dynamic SAS macro that automates a task using %LET, macro variable references (&var), %MACRO/%MEND, and macro evaluation functions (%EVAL and %SYSEVALF).