

IF Function :

Syntax: =IF(logical_test, value_if_true, value_if_false)

Example: =IF(A2>50, "Pass", "Fail")

If A2 is greater than 50, it returns "Pass", otherwise "Fail".

AND Function :

Syntax: =AND(condition1, condition2, ...)

Example: =AND(A2>50, B2<100)

Returns "TRUE" only if both conditions are true.

OR Function :

Syntax: =OR(condition1, condition2, ...)

Example: =OR(A2>50, B2<100)

Returns TRUE if any one of the conditions is true.

Using IF with AND :

Example: =IF(AND(A2>=40, B2>=40), "Pass", "Fail")

Returns "Pass" only if both A2 and B2 are 40 or more.

Using IF with OR :

Example: =IF(OR(A2="Math", A2="Science"), "STEM", "Other")

If A2 is either "Math" or "Science", it returns "STEM", otherwise "Other".

Nested IF Function :

Example: =IF(A2>=90, "A", IF(A2>=75, "B", IF(A2>=60, "C", "F")))

Returns grade based on A2:

- 90 and above = A
- 75 to 89 = B
- 60 to 74 = C
- Below 60 = F

Combining IF, AND, and OR :

Example: =IF(AND(A2>50, OR(B2="Yes", C2="Approved")), "Eligible", "Not Eligible")

Returns "Eligible" if A2 > 50 AND either B2 is "Yes" OR C2 is "Approved".