| **No.** | **Formula** | **Example Input** | **Result** |
| --- | --- | --- | --- |
| 1 | =SUM(A1:A5) | 10,20,30,40,50 | 150 |
| 2 | =AVERAGE(A1:A5) | 10,20,30,40,50 | 30 |
| 3 | =MAX(A1:A5) | 10,20,30,40,50 | 50 |
| 4 | =MIN(A1:A5) | 10,20,30,40,50 | 10 |
| 5 | =COUNT(A1:A5) | 10,20,,40,50 | 4 |
| 6 | =COUNTA(A1:A5) | 10,"Hi",30,,50 | 4 |
| 7 | =IF(A1>10,"Yes","No") | A1=15 | Yes |
| 8 | =A1+B1 | A1=10, B1=5 | 15 |
| 9 | =A1-B1 | A1=10, B1=3 | 7 |
| 10 | =A1\*B1 | A1=4, B1=5 | 20 |
| 11 | =A1/B1 | A1=20, B1=5 | 4 |
| 12 | =TODAY() | — | 21/05/2025 |
| 13 | =NOW() | — | 21/05/2025 10AM |
| 14 | =LEN(A1) | A1="Hello" | 5 |
| 15 | =A1 & " " & B12 | A1="Hi", B1="There" | Hi There |
| 16 | =ROUND(A1,2) | A1=3.14159 | 3.14 |
| 17 | =INT(A1) | A1=5.8 | 5 |
| 18 | =MOD(A1,B1) | A1=5, B1=2 | 1 |
| 19 | =POWER(A1,2) | A1=4 | 16 |
| 20 | =SQRT(A1) | A1=25 | 5 |
| 21 | =ABS(A1) | A1=-100 | 100 |
| 22 | =TEXT(TODAY(),"dd/mm/yyyy") | — | 21/05/2025 |
| 23 | =LEFT(A1,3) | A1="Excel" | Exc |
| 24 | =RIGHT(A1,4) | A1="Formula" | mula |
| 25 | =MID(A1,2,3) | A1="Excel" | xce |
| 26 | =LOWER(A1) | A1="HELLO" | hello |
| 27 | =UPPER(A1) | A1="hello" | HELLO |
| 28 | =PROPER(A1) | A1="good day" | Good Day |
| 29 | =TRIM(A1) | A1=" Hello " | Hello |
| 30 | =IFERROR(A1/B1,"Error") | A1=10, B1=0 | Error |
| 31 | =AVERAGEIF(A1:A5,">10") | 5,12,15,9,11 | 12.67 |
| 32 | =SUMIF(A1:A5,">10") | 5,12,15,9,11 | 38 |
| 33 | =COUNTIF(A1:A5,">10") | 5,12,15,9,11 | 3 |
| 34 | =IF(AND(A1>10,B1<5),"Yes","No") | A1=15, B1=3 | Yes |
| 35 | =IF(OR(A1>10,B1<5),"Yes","No") | A1=8, B1=3 | Yes |
| 36 | =ISNUMBER(A1) | A1=123 | TRUE |
| 37 | =ISTEXT(A1) | A1="Text" | TRUE |
| 38 | =ISBLANK(A1) | A1= | TRUE |
| 39 | =REPT("x",5) | — | xxxxx |
| 40 | =CHAR(65) | — | A |
| 41 | =CODE("A") | — | 65 |
| 42 | =RAND() | — | 0.56 (random) |
| 43 | =RANDBETWEEN(1,100) | — | 47 (random) |
| 44 | =LARGE(A1:A5,2) | 10,20,30,40,50 | 40 |
| 45 | =SMALL(A1:A5,2) | 10,20,30,40,50 | 20 |
| 46 | =SUBSTITUTE(A1,"old","new") | A1="old pen" | new pen |
| 47 | =FIND("e",A1) | A1="Excel" | 4 |
| 48 | =SEARCH("e",A1) | A1="Excel" | 4 |
| 49 | =TEXT(A1,"0.00") | A1=5 | 5.00 |
| 50 | =NOW()-TODAY() | — | 0.46 (time) |

| **No.** | **Formula** | **Example Input** | **Result** |
| --- | --- | --- | --- |
| 51 | =PI() | — | 3.141593 |
| 52 | =ROUNDUP(4.23,0) | — | 5 |
| 53 | =ROUNDDOWN(4.78,0) | — | 4 |
| 54 | =EVEN(5.2) | — | 6 |
| 55 | =ODD(4.7) | — | 5 |
| 56 | =NOW()+1 | Today 10AM | Tomorrow 10AM |
| 57 | =WEEKDAY(A1) | A1 = 31/05/2025 | 7 (Saturday) |
| 58 | =ISODD(7) | — | TRUE |
| 59 | =ISEVEN(4) | — | TRUE |
| 60 | =DATEDIF(A1,B1,"D") | A1=1-Jan, B1=10-Jan | 9 |
| 61 | =YEAR(TODAY()) | — | 2025 |
| 62 | =MONTH(TODAY()) | — | 5 |
| 63 | =DAY(TODAY()) | — | 31 |
| 64 | =HOUR(NOW()) | — | 10 |
| 65 | =MINUTE(NOW()) | — | 25 |

| No. | Formula | Example Input | Result | Explanation |
| --- | --- | --- | --- | --- |
| 66 | =SECOND(NOW()) | — | 30 | Current time ka second part return karta hai. |
| 67 | =CELL("address",A1) | A1 = 10 | $A$1 | Cell A1 ka full address return karta hai. |
| 68 | =CELL("type",A1) | A1 = 123 | v | Batata hai cell me value hai ('v') ya formula ('l'). |
| 69 | =CELL("width",A1) | A1 = "Hello" | 8.43 | Cell ki column width return karta hai. |
| 70 | =TRANSPOSE(A1:A3) | A1=1, A2=2, A3=3 | 1 2 3 (horizontal) | Vertical range ko horizontal (row) me convert karta hai. |
| 71 | =INDEX(A1:A5,3) | 10,20,30,40,50 | 30 | 3rd position ka value return karta hai range me. |
| 72 | =MATCH(30,A1:A5,0) | 10,20,30,40,50 | 3 | 30 kis position pe hai wo return karta hai. |
| 73 | =INDIRECT("A1") | A1 = 50 | 50 | Text string ko cell reference me convert karta hai. |
| 74 | =OFFSET(A1,2,0) | A3 = 30 | 30 | A1 se 2 row niche ka value return karta hai. |
| 75 | =CHOOSE(2,"Red","Blue","Green") | — | Blue | 2nd item return karta hai list me se. |
| 76 | =ROW(A3) | A3 = 30 | 3 | Batata hai ki A3 kis row me hai. |
| 77 | =COLUMN(B2) | B2 = 20 | 2 | Batata hai ki B2 kis column me hai. |
| 78 | =UNIQUE(A1:A5) | 10,20,20,30,30 | 10,20,30 | Sirf unique values return karta hai range se. |
| 79 | =SORT(A1:A5) | 30,10,20 | 10,20,30 | Range ko ascending order me sort karta hai. |
| 80 | =FILTER(A1:A5,A1:A5>20) | 10,30,40,15 | 30,40 | Sirf un values ko dikhata hai jo 20 se bade hain. |

81- 82

**📘 Excel Notes: VLOOKUP vs HLOOKUP**

**🔹 What is VLOOKUP?**

* Full form: **Vertical Lookup**
* Use: Jab data **columns (upar se neeche)** me ho
* Search: **Leftmost column** me value dhoondhta hai
* Return: **Us row ka right-side ka data** deta hai

**✅ Syntax:**

=VLOOKUP(lookup\_value, table\_array, col\_index\_num, [range\_lookup])

**🧾 Example Table:**

| **A (Roll No)** | **B (Name)** | **C (Marks)** |
| --- | --- | --- |
| 101 | Rohan | 85 |
| 102 | Sohan | 90 |

🔍 Formula:

=VLOOKUP(102, A2:C3, 2, FALSE)

📌 Output: **Sohan**

**🔹 What is HLOOKUP?**

* Full form: **Horizontal Lookup**
* Use: Jab data **rows (left to right)** me ho
* Search: **Top row** me value dhoondhta hai
* Return: **Us column ka neeche wala data** deta hai

**✅ Syntax:**

=HLOOKUP(lookup\_value, table\_array, row\_index\_num, [range\_lookup])

**🧾 Example Table:**

|  | **A** | **B** | **C** |
| --- | --- | --- | --- |
| 1 | Roll No | 101 | 102 |
| 2 | Name | Rohan | Sohan |
| 3 | Marks | 85 | 90 |

🔍 Formula:

=HLOOKUP(102, A1:C3, 2, FALSE)

📌 Output: **Sohan**

**🧠 Difference Table:**

| **Feature** | **VLOOKUP** | **HLOOKUP** |
| --- | --- | --- |
| Search in | Column (Top to Bottom) | Row (Left to Right) |
| Best for | Vertical Tables | Horizontal Tables |
| Syntax | col\_index\_num | row\_index\_num |

| No. | Formula | Example Input | Result | Explanation (Hinglish) |
| --- | --- | --- | --- | --- |
| 83 | =HYPERLINK("http://google.com","Go") | — | Go | Go ek clickable link ban jaata hai |
| 84 | =ISERROR(A1/B1) | A1=10, B1=0 | TRUE | Kya formula me error aayega, ye check karta hai |
| 85 | =ISLOGICAL(A1) | A1=TRUE | TRUE | Kya value TRUE ya FALSE hai, ye check karta hai |
| 86 | =ISREF(A1) | — | TRUE | Kya diya gaya input ek valid cell reference hai |
| 87 | =N(A1) | A1="Hello" | 0 | Text ko number me badalta hai, text ka 0 banata hai |
| 88 | =T(A1) | A1=123 | "" | Number ko empty string me badal deta hai |
| 89 | =GCD(24,36) | — | 12 | Dono numbers ka greatest common divisor deta hai |
| 90 | =LCM(4,6) | — | 12 | Dono numbers ka least common multiple deta hai |
| 91 | =SUBTOTAL(9,A1:A10) | Filtered range | Total | Sirf visible rows ka sum karta hai (hidden ignore) |
| 92 | =SUMSQ(A1:A3) | 1, 2, 3 | 14 | Har number ka square karke total deta hai (1²+2²+3²) |

| **S.No** | **Function** | **Explanation (WhatsApp Language)** |
| --- | --- | --- |
| 93 | AGGREGATE | Sum ya Average nikalta hai, lekin hidden rows ko ignore kar sakta hai |
| 94 | ARABIC | Roman number (jaise X, IV) ko normal number me convert karta hai |
| 95 | COMBIN | Maths ka combination nikalta hai — kitne group ban sakte hain |
| 96 | BASE | Number ko binary, octal, ya hex jaise system me convert karta hai |
| 97 | ENCODEURL | Text ko URL-safe bana deta hai (space ko %20 waqaira bana deta hai) |
| 98 | DOLLAR | Number ko dollar format me show karta hai (jaise $1,234.50) |
| 99 | CUBESETCOUNT | Cube data source me kitne items hain, wo count batata hai |
| 100 | DAYS360 | Do dates ke beech din count karta hai lekin 360-day year ke hisaab se |

| **Unit** | **Matlab** | **Output** |
| --- | --- | --- |
| "Y" | Sirf **saal ka difference** batata hai (pure years) | =DATEDIF("01/01/2000", "01/01/2024", "Y") → 24 |
| "M" | Sirf **mahine ka difference** (pure months) | =DATEDIF("01/01/2024", "01/06/2024", "M") → 5 |
| "D" | Sirf **din ka total difference** | =DATEDIF("01/01/2024", "10/01/2024", "D") → 9 |
| "YM" | Sirf mahine ka difference nikalta hai, **saal ignore karta hai** | =DATEDIF("01/01/2020", "01/06/2024", "YM") → 5 |
| "YD" | Sirf din ka difference nikalta hai, **saal ignore karta hai** | =DATEDIF("01/01/2020", "10/01/2024", "YD") → 9 |
| "MD" | Sirf din ka difference (mahina aur saal ignore) — ye kabhi kabhi error de sakta hai | =DATEDIF("01/01/2024", "10/02/2024", "MD") → 9 |