**Section 23**

1. IF FUNCTION SHEET
2. Name ranges {select a column and then in the name box give it a name like week\_1} now using sum function sum(week\_1) will give the same output.
3. Advantages – easy to locate anywhere in excel search for week\_1 in the name box it will take you to the sheet including it. WE CAN USE THIS REFERENCE EASILY INSIDE DIFFERENT WORKSHEETS.
4. Disadvantages – it is like an absolute reference $B$5 just like that u can’t reuse it using replication with side cells.
5. Editing an excel name range.
6. Formulas 🡪Defined names 🡪 Name manager {edit it}.
7. Using excel if function.
8. What if we want to determine if H. James has met his monthly goal? i.e. his totals >= $34,000.
9. For this Formulas 🡪Logical 🡪If 🡪 {perform it {F5>=I2}}
10. IF we autofill the formula down below it throws some error like values that are not desired for this, we can make I2 absolute cell by adding $I$2 or giving it a name range Goal.
11. Nesting functions with excel.
12. **What If we must give bonuses to only those people who has its all week sell value greater than 8000 and was goal met =’yes’.**
13. For this we need to check weather week1 >=8000, week 2 >=8000…… and was goal met =’yes’. {five conditions }.
14. =AND(H5="YES",B5 >= 8000,C5>= 8000,D5>= 8000,E5>= 8000) if true then bonus = yes.
15. Alternatively we can use =AND(H5="YES",MIN(B5:E5) >= 8000)
16. OR ADVANCE
17. =IF(AND(H9="YES",MIN(B9:E9)>=8000),"BONUS","NO BONUS")
18. COUNTIF FUNCTION.
19. =COUNTIF(H5:H9,"YES") IF TRUE THEN IT WILL COUNT THE TOTALS.{F12}
20. INSIDE THE SHEET SUMIF
21. We want to investigate column STORE # and we want to find the sum of total units for store number 3000. How?
22. Syntax SUMIF(what range you want to look into{searching area}, what criteria you want to check {I for example look for store number 3000}, what is your sum range{choose column that need to get summed} ).
23. =SUMIF(B3:B272,G3,E3:E272) or =SUMIF(B3:B272,3000,E3:E272)
24. IF ERROR FUNCTION
25. Syntax 🡪 IFERROR(value u want to look into or to be checked , **message to be displayed if the value is not found**).
26. =IFERROR(VLOOKUP($B3,'Master Emp List'!$A$1:$I$38,3,FALSE), "**Employee Id not Found**")

**Section 25**

1. VLOOKUP FUNCTION {VLOOKUP function, master imp list}
2. What if someone want to extract data from master imp list sheet and fill it into VLOOKUP function sheet , like he is searching with an employment id reference and want VLOOKUP function sheet columns only like Last name, department, payrate instead of looking into and filling it manually we can use VLOOKUP’s.
3. Syntax 🡪 VLOOKUP(what value you want to look into, table array i.e. the data reference for the filling, which column in table array is needed for filling , not exactly matcing = true or false )
4. =VLOOKUP($B3,'Master Emp List'!$A$1:$I$38,2,FALSE)
5. IMPORTANT THE EMP ID IN BOTH THE SHEET IS USED AS A REFERENCE SO IT SHOULD BE IN THE FIRST COLUMN ALWAYS.
6. IMPORTANT THE TABLE LIST SHOULD ALSO BE MADED ABSOLUTE BY PRESSING F4 KEY{TO GET A $ SIGN}.
7. HLOOKUP FUNCTION. {hlookup function, master inventory list sheet}.
8. INDEX FUNCTION
9. THE NEED OF INDEX AND MATCH FUNCTION COMES BECAUSE OF LIMITATIONS OF VLOOKUPS/HLOOKUPS FUNCTIONS.
10. INDEX FUNCTION IS USED TO RETURN A CELL VALUE INSIDE ANOTHER SHEET IN A WORKBOOK.
11. Syntax 🡪 INDEX(list of data as input ,row no. , column no. )
12. =INDEX('INDEX MATCH Master Emp List'!$A$1:$I$38,10,3)
13. MATCH FUNCTION
14. USED TO RETURN THE ROW NUMBERING OF A CELL FROM DIFFERENT SHEETS INSIDE YOUR SELECTED SHEET.
15. Syntax🡪MATCH(THE VALUE THAT YOU WANT TO MATCH, LOOK UP TABLE{ONLY 1 COLUMN SHOULD BE CHOOSED}, 1 OR 0 OR -1).
16. =MATCH(B4,'INDEX MATCH Master Emp List'!A1:A38,0)
17. Practice how INDEX AND MATCH WORK TOGETHER.
18. =INDEX ('INDEX MATCH Master Emp List'!C1:C38,MATCH($B4,'INDEX MATCH Master Emp List'!D1:D38,0))
19. NOW USING INDEX AND MATCH WE DON’T HAVE WORRY ABOUT VLOOKUP RULES. HURRAY !
20. =HLOOKUP($B$3,'Master Inventory List'!$A$2:$G$5,MATCH(LEFT(A5,11),'Master Inventory List'!$A$2:$A$5,0))

**SECTION 26**

1. DISCUSSED LEFT(), MID() AND RIGHT() FUNCTIONS.
2. Syntax🡪 left (reference cell, to what digit you want to print starting from first alphabet).
3. Extracted data from a single column and created three columns with it using left, mid and right functions.
4. Len() function to calculate the length of a string.
5. Search function.
6. Inside the search function sheet what if we want to separate the full name column into first and last name. we can use left function for this but it will throw some errors as it will repeat the same pattern over and over again. For this we will use search function.
7. Search function returns the position of character that we are searching for, Like 6,7….etc.
8. Syntax 🡪 search(which text you are looking for, which cell, any specific number from were we can start).
9. We are looking for space inside cell a2.
10. =Search(“ “, a2) 🡪 it will give 7 as output
11. Then Left(a2, Search(“ “, a2)).
12. To print last name =RIGHT(A2,LEN(A2)-SEARCH(" ",A2))
13. CONCATENATE FUNCTION.
14. Syntax🡪concatenate (text1, text2, etc..)
15. =CONCATENATE(C4," ",B4)

**Section 27**

1. Auditing an excel worksheet.
2. **How to trace a cell that is getting some values from another cells with some formulas in between them.**
3. Formula🡪 Formula Auditing 🡪Trace precedents.
4. For a particular cell we can also trace which cell are dependent on this cell by.
5. Formulas🡪Formula Auditing 🡪 Trace Dependents.
6. Remove all the arrows by Formulas🡪Formula Auditing 🡪 Remove arrows.
7. Watch window
8. What if you want to watch a cell that is inside another worksheet at the time you are doing some changes inside a different worksheet you can trace it in a window called watch window.
9. Go to sheet called watch window and then Formulas🡪 watch window{ add that cell B2}.
10. We can view all the formulas used inside our worksheet by going to Formulas 🡪 Show formulas HURRAY!

**SECTION 28**

1. Protecting excel worksheets and workbooks.
2. Information every cell in excel worksheets are protected with a pad lock which is always turned on. For this reason, we first need to turn of the lock off for the cells that we allow modification.
3. We are turning it off select cell b5 🡪 e9.
4. Then go to Home🡪fonts 🡪 click on the down arrow 🡪 protection🡪 uncheck lock cells.
5. Then now we can go to review 🡪Protect sheet.
6. Pass 1234.
7. How to Protect the structure of workbook ?
8. You can protect your entire workbook meaning no one can add sheet, delete sheet, rename sheet, etc… just by going to
9. Review 🡪 Protect Workbook
10. We can undo this by same process.
11. How to protect your workbook with a opening password.
12. Goto info 🡺 protect worksheet🡪 tap your pass
13. Done !

**Section 29**