**Question Set1 for Class 11**

**(Question/Exercise/Activities)**

**Topics – Logical Functions – AND, OR, NOT, IF & Lookup Functions – VLOOKUP, HLOOKUP**

**Q1.** Formulate logical tests for testing for the following situations. Also create formulas containing those logical tests for getting the answers of the tests as TRUE or FALSE:

1. If value 20 is equal to value 10 or not
2. If value 20 ≥ 10 or not
3. If the value of a cell A1 is SRCC or not
4. If the value 4 will result from expression 3 + 2

**Q2.** What will be the output of the following situation?

1. =4=5
2. =4<5
3. =4<=5
4. =AND(3,3)
5. =AND(0,0)
6. =OR(2,0)
7. =NOT(1)
8. =NOT(0)
9. =NOT(AND(3,3))
10. =NOT(OR(0,0))
11. =A1=4 where A1 contains the value 4
12. =A1=5 where A1 contains the value 4
13. =A1>5 where A1 contains the value 4
14. =A1<=6 where A1 contains the value 6
15. =AND(A1="SRCC", A2="KM"), where A1 contains the value SRCC and A2 contains the value KM
16. =OR (A1="SRCC", A2="KM"), where A1 contains the value MH and A2 contains the value KM
17. =NOT(A1="SRCC"), where A1 contains the value SRCC
18. =OR(A1) where A1 contains the value SRCC
19. =OR(A1) where A1 contains the value 3

**Q3.** Which formula will be used in the following situations?

1. =if(A1,formula1,formula2) where A1 contains the value 1
2. =if(A1,formula1,formula2) where A1 contains the value -1
3. =if(A1,formula1,formula2) where A1 contains the value 0

**Q4.** Find out if a person is fail or pass from the percentage of marks obtained by the student by using the rule that student scoring 40% or more is declared pass and student scoring less than 40% is declared fail.

*Hint: Use of if() function.*

**Q5.** A university maintains the information students who are doing research. Under a government scholarship scheme, students who have cleared NET (National Eligibility Test) exam are given a stipend of Rs. 2000 per month. If University maintains the information about student name and their NET pass status (as Yes or No), find out the scholarship amount against each student using the following format.

|  |  |  |
| --- | --- | --- |
| Student Name | NET Pass Status (Yes/No) | Stipend Amount |
| Assume | Assume | ?? |
| Assume | Assume | ?? |
| Assume | Assume | ?? |
| Assume | Assume | ?? |

*Hint: Use of If() function*

**Q6.** A university maintains the information about students who are doing research (Ph.D.). Under a government scholarship scheme, students who have cleared JRF (Junior Research Fellow) exam are given a stipend of Rs. 5000 per month while the students who have cleared the NET (National Eligibility Test) exam are given a stipend of Rs. 2000 per month. If University maintains the information about student names and their NET/JRF pass status (as NET/JRF), find out the scholarship amount against each student using the following format.

|  |  |  |
| --- | --- | --- |
| Student Name | NET/JRF Pass Status (NET/JRF) | Stipend Amount |
| Assume | Assume | ?? |
| Assume | Assume | ?? |
| Assume | Assume | ?? |
| Assume | Assume | ?? |

*Hint: All the other students who have not cleared any of NET/JRF will get no stipend. Nested if*

**Q7.** A university maintains the information about students who are doing research (Ph.D.). Under a government scholarship scheme, students who have cleared JRF (Junior Research Fellow) exam are given a stipend of Rs. 5000 per month while the students who have cleared the NET (National Eligibility Test) exam are given a stipend of Rs. 2000 per month. If University maintains the information about student names and their NET/JRF pass status (as NET/JRF), find out the scholarship amount against each student using the following format.

|  |  |  |
| --- | --- | --- |
| Student Name | NET/JRF Pass Status (NET/JRF) | Stipend Amount |
| Assume | Assume | ?? |
| Assume | Assume | ?? |
| Assume | Assume | ?? |
| Assume | Assume | ?? |

*Hint: Nested if*

**Q8.** Using MS Excel, compute the grade of student using the following the following rules.

|  |  |
| --- | --- |
| Marks(%) Less than 40 excluding 40 | E |
| Marks(%) Between 40 and 50 excluding 50 | D |
| Marks(%) Between 50 and 60 excluding 60 | C |
| Marks(%) Between 60 and 70 excluding 70 | B |
| Marks(%) 70 or More than 70 | A |

*Hint: Use of nesting of if() function.*

**Q9.** A child is given two dishes to eat. Using MS Excel, compute the happiness status (Happy/Sad) of a child in the following situations of preferences. (Source: Inspired from some problem I saw some where long back)

1. Situation 1: The child feels happy if he/she gets a mango and a banana
2. Situation 2: The child feels happy if he/she gets any of mango and banana
3. Situation 3: The child feels happy if he is not given any of mango and banana
4. Situation 4: The child feels happy if he/she at least gets mango
5. Situation 5: The child never feels happy irrespective what is served to the child
6. Situation 6: The child always feels happy irrespective what is served to the child

**Q9.** A teacher prepares a spread sheet for helping him in recording the marks of the students in any given section. The teacher prepares the sheet in the following format so that it could be used for each section he is teaching.

|  |  |  |
| --- | --- | --- |
| S.No | Student Name | Marks |
| ?? | Assume | Assume |
| ?? | Assume | Assume |
| ?? | Assume | Assume |
| ?? | Assume | Assume |

Assuming that the spreadsheet may accommodate a maximum of 50 students, find out what should the teacher do in his/her spreadsheet so that serial numbers automatically some as soon as the teacher writes student name.

*Hint: Garbage Cleaning using if function*

**Q9.** Generate the multiplication table of a given number and number of terms from the user.

*Hint: Garbage Cleaning using if function*

**Q10.** Improve the following problem which was given in earlier question sets, so that it automatically find the total money saved for any new row (uptill 1000 rows) that is added in the list of savings made by the person.

“A person saves some money in a box each day. The person also records the money saved by him/her on a spreadsheet so that the person could know how much money has been saved till the end of each day. Prepare a spreadsheet that helps the person to find the total money saved till the end of each day. Solve it in three ways – 1) using multiplication operator 2) using sum function with cell addresses and 3) using sum with range.”

**Q11.** Improve the following problem by finding the total of the saving made so far at the end of the column in which savings are being recorded.

“A person saves some money in a box each day. The person also records the money saved by him/her on a spreadsheet so that the person could know how much money has been saved so far. Prepare a spreadsheet that helps the person to find the total money saved so far.” Remember that you are not asked to compute the total savings at the end of each month.

**Q12.** Assume that college maintains a list of 10 sections along with their class teacher names. A project team is made which contains list of 5 students along with their section. Write an Excel formula to get the class teacher’s name for each of the students in the project list.

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Section Class Teacher List**

|  |  |
| --- | --- |
| Section | Class Teacher Name |
|  |  |
|  |  |
|  |  |
|  |  |

 | **Project List**

|  |  |  |
| --- | --- | --- |
| Student | Section | Class Teacher |
|  |  |  |
|  |  |  |
|  |  |  |

 |

*Hint: Use VLOOKUP, Keep the section list in the ascending order of the search field*

**Q13.** In question no 12, if the section of a student is incorrectly given a section that does not exist in the section list, what will be its class teacher’s name?

*Hint: Gives the value prior to the place it finds the*