

## Questions on Payroll Computation

**Q** The salary of a worker includes two components – basic salary and dearness allowance. If the basic salary of the worker is Rs. 15000/-, compute the total salary of the worker.

**Q** The salary of a worker is computed by finding the number of hours worked by the worker. If the hourly wage rate is Rs. 100, prepare a spreadsheet that calculates the salary of the worker on providing the number of hours worked. Make the spreadsheet generalized on wage rate as well as the number of hours worked.

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**Q** The net salary of an employee is computed by adding two components – basic salary and HRA. The basic salary can be inputted for an employee. However, HRA is based on basic salary and uses the following rules.

If the basic salary is up to Rs. 10,000/- then HRA will be 10% of the basic salary, or else if the basic salary is more than Rs. 10,000/- but upto Rs. 25,000/- then HRA will be Rs. 1,000/- plus 20% of basic salary above Rs 10,000/-. Finally if the basic salary is more than Rs. 25,000/- then the HRA will be Rs. 4,000/- plus 30% of basic salary above Rs. 25,000/-.

Prepare a worksheet which computes the net salary of an employee on providing the basic salary.

**Q** The net salary of an employee is computed by adding two components – basic salary and HRA. The basic salary can be inputted for an employee. However, HRA is based on basic salary and uses the following rules.

HRA is computed according to the three slabs of basic salary: Slab 1 – For part of basic salary upto Rs. 10,000/-, Slab 2 – For part of basic salary more than Rs. 10,000/- upto Rs. 30,000/- and Slab 3 – For part of basic salary which is more than Rs. 30,000/-. The HRA is computed as 20%, 30% and 40% for slab 1, slab 2 and slab 3 respectively.

Prepare a worksheet which computes the net salary of an employee on providing the basic salary.

**Q** The net salary of an employee is computed by adding two components – basic salary and HRA. The basic salary can be inputted for an employee. However, HRA is based on the basic salary and the category to which employee belongs. There are three categories of employees: A, B and C. The HRA is computed as 20%, 30% and 40% of the basic salary for category A, B and C respectively.

Prepare a worksheet which computes the net salary of an employee on providing the basic salary and the category of that employee. Make sure that the worksheet is generalized for parameters of the rules too.

**Q** The net salary of an employee is computed by adding two components – basic salary and HRA. The basic salary can be inputted for an employee. HRA is based on the basic salary to which employee belongs. There are three categories of employees: A, B and C. The HRA is computed as 20%, 30% and 40% of the basic salary for category A, B and C respectively. However HRA is paid only to those employees for whom HRA is applicable.

Prepare a worksheet which computes the net salary of a single employee on providing the basic salary, category of the employee and information whether HRA applicability. Make sure that the worksheet is also generalized for parameters of the rules.

*Hint:* Information about HRA applicability can be entered in the form of Yes/No or Y/N or 1/0.

**Q** The net salary of an employee is computed by adding following components – basic salary, house rent allowance (HRA) and travel allowance (TA). The basic salary can be inputted for an employee. However, HRA and TA are based on the category to which employee belongs. There are three categories of employees: A, B and C. The HRA is computed as 20%, 30% and 40% of the basic salary for categories A, B and C respectively. Similarly, TA is fixed as Rs. 10000/-, Rs. 15,000/- and Rs. 20,000/- for categories A, B and C respectively.

Prepare a worksheet which computes the net salary of an employee on providing the basic salary and the category of that employee. Ensure that the worksheet is generalized not only for basic salaries and categories but also for the parameters of the rules governing the computation of HRA and TA. Keep parameters in a separate sheet named Parameters and pay calculation in a separate sheet named Payroll.

Hint: vlookup

**Q** One of the components of an employee’s salary in India is dearness allowance (DA). Suppose, DA is calculated as 15% of basic pay subject to a maximum of Rs. 5000/-, prepare a worksheet in MS Excel which computes the DA amount for an employee on providing the basic salary of that employee.

*Hint:* Although the language of the question uses the word maximum, the computational task is about finding the minimum of the two.

**Q** A person’s net salary is computed through different components like Basic Salary, Dearness Allowance, House Rent Allowance, Income Tax etc. Create a worksheet in a MS Excel, which calculates the net salary of a person using the information (data/instruction/rule) given below:

1. Assume the basic salary of the person on your own
2. Dearness Allowance is 20% of the basic salary
3. House Rent Allowance is 30% of the basic salary
4. Gross Salary is the total of basic salary, dearness allowance, and house rent allowance
5. Income tax is deducted as 15% of the gross salary
6. Net income is calculated by deducting the income tax from gross salary
7. Use the following format for the computation of net salary.

Employee Code	
Name of the Employee	
Basic Salary	
Dearness Allowance	
House Rent Allowance	
Gross Salary	
Income Tax	
Net Salary	

**Q** A company pays to its employees the salary on the basis of basic pay. The gross salary of an employee consists of Dearness Pay (D.P.) and House Rent Allowance (H.R.A). Prepare a payroll statement by using the following instructions in spreadsheet software (e.g. MS Excel)

1. Use the following sample format for the preparation of payroll statement

Title					
Emp Id	Name of Employee	Basic	DA	HRA	Gross
Total					

2. Title of the payroll should include the following in two lines
  - a. Company Name
  - b. Payroll for July 2050

3. Assume Emp Id, names of the employees of 10 employees on your own
4. Assume basic salaries of the employees on your own such that there is at least one example of each category of HRA
5. DA is paid @ 10% of basic pay subject to a maximum of Rs. 5400/-
6. HRA is paid as per the following rules

Basic Salary	HRA
Upto Rs. 10,000/-	Rs. 5,000/-
Between Rs. 10,001/- and Rs. 25,000/-	Rs. 7,000/-
More than Rs. 25,000/-	Rs. 9,000/-

7. Gross salary for is computed by adding DA and HRA to the basic salary
8. Compute the total salary to be paid to all the 10 employees
9. Format different cells for a professional impact (Use the principles of financial formatting, alignment and bold for appropriate cells).

**Q** Solve the previous payroll question using the following changed instruction(s):

1. HRA is paid as per the following rules

Basic Salary	HRA (in % of basic salary)
Up to Rs.10,000	10%
Next up to Rs.25,000	20%
Thereafter	30%

Note: All the others instructions remain same.

**Q** Prepare a payroll statement of an employee for all 12 months of a financial year (2049-50) by using the following instructions in spreadsheet software (e.g. MS Excel).

1. Use different worksheets for parameters and payroll data
2. Intuitively use the following sample format for the preparation of payroll statement.

Month	Basic Salary	DA Rate	DA	HRA	Gross
<b>Total</b>					

1. Compute dearness allowance (DA) as per the following information.

Rate of dearness w. e. f.	Rate of dearness allowance (as % of basic salary)
Jan 2048	10%
Jul 2048	15%
Jan 2049	20%
Jul 2049	25%
Jan 2050	30%

2. Compute House Rent Allowance (HRA) as 30% of basic salary if basic salary is less than 12000 else 40% of basic salary.

*Hints:* Rate of dearness allowance, once declared remains constant until revised again.

**Q** Prepare a payroll statement of an employee for all 12 months of a financial year by using the following instructions in spreadsheet software (e.g. MS Excel).

- Use different worksheets for parameters and payroll data
- Intuitively use the following sample format for the preparation of payroll statement.

Title					
Month of Increment					
Month	Basic Salary	Basic	DA	HRA	Gross
Total					

- The title of the payroll should be as follows.  
 <Your Name>  
 Payroll of Financial Year 2050
- Assume the month of the increment for the employee on your own by selecting one month from a list.
- Assume the basic salary of the employee for the first month to be any permissible amount in the pay scale of 10000-350-15200. Select the basic salary from a list of possible basic salaries.
- Compute the basic salaries for other months according to the applicability of the increment.
- Compute dearness allowance (DA) as per the following information.

Month from which rate of dearness allowance is revised	Rate of dearness allowance (as % of basic salary)
Jan 2048	10%
Jul 2048	15%
Jan 2049	20%
July 2049	25%
Jan 2050	30%

- Compute the arrears against DA keeping the following scenario in mind. Each year, the DA rates are announced late in the months of April and October but are considered to be effective from the previous January and July month of the respective year. In such situation, DA arrears are also paid in the month of April and October for the past 3 months.
- Compute House Rent Allowance (HRA) as 30% of basic salary if basic salary is less than 12000 else 40% of basic salary.

*Hints:* The pay scale of 10,000-375-15,200 means that least basic salary can be Rs. 10,000, the yearly increment applicable is Rs. 350, and the maximum basic salary can be Rs. 15,200 on your own. Rate of dearness allowance, once declared remains constant until revised again.

**Q** Using a spreadsheet software (e.g. MS Excel), compute the arrears due against an employee because of revision in pay scale made by 6<sup>th</sup> pay commission. The pay commission passed new pay scales in Aug 08, in a retrospectively manner with effect from Jan 2006. This led to the payment of arrears (difference between due salary and actual salary paid for previous months) to be also made in Aug 2008. Use the information/ instructions while solving this question.

- Keep different worksheets for parameters and payroll data
- Assume the month of increment on your own from a list of months
- The computation of old basic salary depends on the old pay scale and month of increment. The pay scale for the old basic salary is 10,000-325-15200. Assume the basic salary for the month of Jan 2006 by selecting any one of the valid basic salaries according to the old pay scale.

4. The old basic salary for the remaining months is computed by taking the month of increment into account.
5. DA amounts are computed by using the DA rate as declared by the Government every January and July as given in the following table for old as well as new pay scales.

Month/Year	Old DA Rate	New DA Rate
Jan 2006	24%	0%
Jul 2006	29%	2%
Jan 2007	35%	6%
Jul 2007	41%	9%
Jan 2008	47%	12%
Jul 2008	NA	16%

6. According to the new pay scale, the new basic salary is computed by multiplying the old basic salary by a factor of 1.86
7. The new basic salary is also incremented each year in the month of July, as 3% of basic salary and grade pay rounded off to the next multiple of Rs. 10/-
8. According to the new pay scale, a new component called “Grade Pay” was also introduced which was fixed to an amount of Rs 7,000/- each month.

*Hints:* The difference in salary already paid and salary due as per new pay scale will provide arrear for a month.