|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| from the given information calculate the percent release of paracetamol from tablet containing 500 mg in dissolution test utilizing type 2 apparatus , λ = 243 nm , at 50 rpm , and volume of media (distilled water) 900 ml for 30 min limit and Q test not less than 80% within 30 min, ***is the result within acceptable range ?*** if not why ? **draw a cruve between the % drug release and the time** ....  the equation of calibration curve is y=0.0589x+0.0889.. remember you had diluted the filtrate 1: 50 times  Hint see the valsartan example bellow for help  The profile does not support the excel files ,, still can copy them though  Good luck | | | | | | | | | |
|
|  |  |  |  |  |  |  |  |  |  |
| time | abs |  |  |  |  |  |  |  |  |
| 0 | 0 |  |  |  |  |  |  |  |  |
| 5 | 0.388 |  |  |  |  |  |  |  |  |
| 10 | 0.6 |  |  |  |  |  |  |  |  |
| 15 | 0.646 |  |  |  |  |  |  |  |  |
| 20 | 0.673 |  |  |  |  |  |  |  |  |
| 30 | 0.676 |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |

Valsartan 160 mg example

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| equation of y from calibration curve already given by examiner y = 0.0327X+0.0154 .. Remember this equation is originally written as (y= ax+ b ) as a is the slope while b is the intercept | | | | | | | | |
|  |  |  |  |  | |  |  |  |
| after rearranging the data from the given equation above x=( y-0.0154)/0.0327 | | | | | |  |  |  |
|  |  |  |
|  |  |  |  |  | |  |  |  |
| hint Y value is the abs value , hint add ( ) in the answers, | | | | | |  |  |  |
|  |  |  |  | |  |  |  |  |
| time in min | abs | conc in Ug/ml of **diluted sample** (1:10) | conc in ug/ml **before dilution** | | **amount** of drug in jar in **ug** | **amount** of drug in jar in **mg** | % release of drug |  |
| 0 | 0 | 0 | 0 | | 0 | 0 | 0 |  |
| 5 | 0.428 | 12.61774 | 126.1774 | | 126177.4 | 126.1774 | 78.86086 |  |
| 10 | 0.47 | 13.90214 | 139.0214 | | 139021.4 | 139.0214 | 86.88838 |  |
| 15 | 0.479 | 14.17737 | 141.7737 | | 141773.7 | 141.7737 | 88.60856 |  |
| 20 | 0.488 | 14.4526 | 144.526 | | 144526 | 144.526 | 90.32875 |  |
| 30 | 0.516 | 15.30887 | 153.0887 | | 153088.7 | 153.0887 | 95.68043 |  |
|  |  |  |  | |  |  |  |  |

to draw the graph select the % release of drug column (highlighted in green) first while holding control button then select the time column , never let go with pressing control , then go to insert-- select scattered to gain the above graph