NOTE ON CGPA CALCULATION

CGPA stands for Cumulative Grade Point Average.
This is a measure that indicates how a student has performed throughout right from first semester to the present semester in case of still pursuing engineering and the overall performance in case of completion of engineering. Hence the word **Cumulative** has been used.

CGPA is calculated using the following formula:

$$CGPA = \frac{\sum_{i=1}^{n} SGPA_i * No.of.credits_i}{\sum_{i=1}^{n} No.of.credits_i},$$

where

$SGPA_i$ = SGPA of 'i'th semester,

$No.of.credits_i$ = No of credits allocated to 'i'th particular sem.

n = No. of semesters.

The SGPA of a semester is multiplied with the corresponding number of creditsof that particular semester and this product is summed over all the semesters completed by a student till date.

Then, the above sum is divided by the total no of credits right from first semester to the semester till date. And hence, the CGPA is obtained.

An example is given below to demonstrate the above process:

Consider a student belongs to **CSE** department and has completed 5 semesters. Following is his **SGPA** of all the five semesters.

SEMESTER	SGPA	NO. OF CREDITS
1	9.35	20
2	9.4	20
3	9	26
4	9.75	24
5	9	25

Now, the calculation is as follows:

$$CGPA = \frac{(9.35 * 20) + (9.4 * 20) + (9 * 26) + (9.75 * 24) + (9 * 25)}{20 + 20 + 26 + 24 + 25}$$

$$CGPA = \frac{187 + 188 + 234 + 234 + 225}{115}$$

$CGPA$ = 1068 / 115

= **9.286**

So, the student obtained a CGPA of **9.286** after **5** semesters.

Hope this document helped you calculate your CGPA
All the best!!

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