CALCULATION OF CGPA

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.

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.
   = No. of semesters.

The SGPA of a sem is multiplied with the corresponding number of credits of 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:

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

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

$$CGPA = \frac{1068}{115}$$

$$= \mathbf{9.2869}$$

So, the student obtained a CGPA of 9.2869 after 5 semesters.

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

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