

# **CALCULATION OF SGPA AND CGPA**

## **2019-2020 SYSTEM.**

Hello, this document explains the division of Credits and calculation of SGPA and CGPA. First, let's know the full forms of SGPA and CGPA.

SGPA = Semester Grade Point Average.

SGPA is a measure of your performance in any particular semester.

CGPA = Cumulative Grade Point Average.

CGPA is a measure of your performance right from the first semester of your B.E.

Given below is a table of Credits assigned to each subject of a particular cycle.

(According to 2019-2020 system)

### **PHYSICS CYCLE**

<b>SUBJECTS</b>	<b>COURSE CODE</b>	<b>CREDITS</b>
<b>ENGG. PHYSICS</b>	<b>18PY1BSPHY</b>	<b>5</b>
<b>ENGG. MATHEMATICS</b>	<b>18MA1BSEM1</b>	<b>4</b>
<b>ELEMENTS OF MECHANICAL ENGINEERING</b>	<b>18ME1ESEME</b>	<b>4</b>
<b>CONCEPTS OF C PROGRAMMING</b>	<b>18CS1ESCCP</b>	<b>4</b>
<b>ELEMENTS OF ELECTRONICS ENGG.</b>	<b>18EC1ESECE</b>	<b>3</b>
<b>TOTAL</b>		<b>20</b>

### **CHEMISTRY CYCLE**

<b>SUBJECTS</b>	<b>COURSE CODE</b>	<b>CREDITS</b>
<b>ENGG. CHEMISTRY</b>	<b>18CY1BSCHY</b>	<b>5</b>
<b>ENGG. MATHEMATICS</b>	<b>18MA1BSEM1</b>	<b>4</b>
<b>ELEMENTS OF ELECTRICAL ENGG.</b>	<b>18EE1ESEEE</b>	<b>4</b>
<b>ENGG. MECHANICS</b>	<b>18CV1ESENM</b>	<b>4</b>
<b>ELEMENTS OF ENGG. DRAWING</b>	<b>18ME1ESEED</b>	<b>3</b>
<b>TOTAL</b>		<b>20</b>

# GRADE ALLOCATION

This actually very simple. College will give grades of all the subjects along with the marks in the final end semester result sheet. This is for the reference. (2019-2020 system).

RANGE OF MARKS	GRADE ALLOCATED	WEIGHTAGE TO BE TAKEN(x)
90-100	S	10
80-89	A	9
70-79	B	8
60-69	C	7
50-59	D	6
40-49	E	5
<40	F	Considered as fail, hence the subject has no weightage in the final SGPA.

So, the formula becomes:

$$\frac{\sum_{i=1}^n x_i \cdot (credits_i)}{\sum_{i=1}^n credits_i}$$

Where Credits<sub>i</sub> is the credits allocated to the 'i' th subject.

For example: lets assume in Physics cycle, a person has scored the following marks

Physics - 90

EME - 77

EM1 - 89

CCP - 58

ECE - 65

Then, the calculation will be:

$$\frac{10(\text{physics}) * 5 + 8(\text{EME}) * 4 + 9(\text{EM1}) * 4 + 6(\text{CCP}) * 4 + 7(\text{ECE}) * 3}{5 + 4 + 4 + 4 + 3} =$$

$$\frac{163}{20} = 8.15$$

So, this is how SGPA is calculated for each semester.

**EXPLAINED BY - KIRAN MK (UG CSE BMSCE)**