

ATTENTION OF CANDIDATES

Candidates are aware that the APICET-2017 is being conducted on 02-05-2017 in two sessions.

APICET-2017 is being conducted in two sessions based on the same syllabus, same pattern for candidates having same eligibility criteria. A candidate will be eligible to appear only in one session. Since the question paper will be different for each session, there is a possibility that the candidates compare themselves about the variation in the difficulty level of questions. However, it may be noted that utmost care will be taken so that all the papers are of same standard. Further, it is decided to adopt a normalization process to eliminate any such variations in the difficulty level of various sessions.

What is Normalization?

Normalization, as used in Indian context, is a process for ensuring the students neither advantaged nor disadvantaged by the difficulty of examinations conducted in multiple sessions. This process is based on a simple formula which has been adopted as recommended by the experts from reputed educational institutions at all India level and Universities. The process is being implemented in other all India / Nationwide entrance tests for admission into undergraduate and graduate professional courses. Normalisation process ranks all the candidates across all sessions on a comparative scale. In any normalization process, the marks of the easier session may be reduced marginally and the marks of the harder paper may increase marginally on the global level, depending on the average performance in each session. If there is no much difference in the averages between two sessions then there won't be much difference in the normalized marks as well. Normalizing marks would justify the candidates while protecting their actual performance.

APICET marks Normalization Process:

The main aim of the normalization is to justify the candidates who got a difficult paper compared to an easier paper. Hence, the task is to rationalize in a best possible sense and rank the candidates based on the global performance. Various national level examination bodies like CAT, JEE (Main), GATE etc. are currently adopting such normalization procedures. Correspondingly, Committee on normalization has deliberated extensively and decided to use the following normalization procedure.

Normalized Marks of the candidate

$$= GMS + \frac{(TopAverageGlobal - GMS)}{(TopAverageSession - SMS)}$$

* (Marks obtained of the candidate - SMS)

SMS:(Average + Standard Deviation) of the session in which the candidate belongs to

GMS: (Average + Standard Deviation) of all the candidates across all sessions together

TopAverageSession: Average marks of the top 0.1% of the candidates in the session in which the candidate belongs to

TopAverageGlobal: Average marks of the top 0.1% of all the candidates across all sessions together

Notes:

For the candidates for whom there is no qualifying cut off in APICET-2017, if the marks in APICET-2017 after normalization go below zero (negative), the total marks are treated as zero and the ranks are assigned based on those marks. If tie persists, then APICET-2017 normalization marks will be considered for breaking the tie.

Demonstration with a sample data:

The following is based on a sample data to explain the normalization process. The data is based on almost equal number of candidates in both sessions. The normalization is shown subject wise so that the students get benefit based on subject wise performance rather than the entire paper in a session.

Averages and Standard Deviations in a particular session and averages of top 0.1% candidates of a particular session, Global Average and Standard Deviations of all sessions together, Averages of top 0.1% candidates in all sessions is given in Table 1. Example data of normalized marks is shown in Table 2 to Table 4.

Table 1: Averages and Standard Deviations of sample data

APICET-2015		SECTION-A	SECTION-B	SECTION-C
Session1	Avg	26.66	22.35	15.46
	Std_Dev	7.46	5.22	5.27
	Top 0.1% Avg	60.59	56.12	37.84
Session2	Avg	26.66	22.30	15.49
	Std_Dev	7.48	5.23	5.28
	Top 0.1% Avg	60.22	55.72	37.94
All	Global_Avg	26.66	22.33	15.47

sessions	Global_Std_Dev	7.47	5.22	5.28
together	Top 0.1% Global_Avg	60.42	55.92	37.89

APICET-2016		SECTION-A	SECTION-B	SECTION-C
Session1	Avg	26.20	20.39	15.45
	Std_Dev	6.56	4.33	5.06
	Top 0.1% Avg	57.36	42.18	38.32
Session2	Avg	26.20	20.4	15.45
	Std_Dev	6.55	4.35	5.05
	Top 0.1% Avg	56	43.71	43.71
All sessions together	Global_Avg	26.20	20.40	15.45
	Global_Std_Dev	6.55	4.34	5.06
	Top 0.1% Global_Avg	56.68	42.95	38.34

Table 2: Example of Normalized marks in Session 1:

Candidate in APICET-2015	Marks	SECTION-A	SECTION-B	SECTION-C	Total
C1	Actual Marks	62	64	37	163
	Normalized Marks	61.82	63.75	37.04	162.67
C2	Actual Marks	38	35	27	100
	Normalized Marks	37.98	34.93	27.03	99.90
C3	Actual Marks	1	27	23	51

	Normalized Marks	1.235	26.983	23.023	51.09
C4	Actual Marks	14	2	0	16
	Normalized Marks	14.15	2.141	-0.016	16.217

Table 3: Example of Normalized marks in Session 2:

Candidate in APICET-2015	Marks	SECTION-A	SECTION-B	SECTION-C	Total
C1	Actual Marks	53	67	40	160
	Normalized Marks	53.14	67.27	39.95	160.34
C2	Actual Marks	38	40	22	100
	Normalized Marks	38.02	40.10	21.97	100.10
C3	Actual Marks	12	17	4	33
	Normalized Marks	11.81	16.95	3.99	32.83
C4	Actual Marks	5	3	12	20
	Normalized Marks	4.76	2.86	11.98	19.77

Table 4: Example of Normalized marks in Session 1:

Candidate in APICET-2016	Marks	SECTION-A	SECTION-B	SECTION-C	Total
C1	Actual Marks	0	0	0	0
	Normalized Marks	0.882	-1.067	-0.023	0.4896
C2	Actual Marks	19	18	10	47
	Normalized Marks	19.36	17.72	9.99	47.17

C3	Actual Marks	29	28	34	91
	Normalized Marks	29.09	28.15	34.02	90.86
C4	Actual Marks	64	43	29	136
	Normalized Marks	63.14	43.80	29.01	135.55

Table 5: Example of Normalized marks in Session 2:

Candidate in APICET-2016	Marks	SECTION-A	SECTION-B	SECTION-C	Total
C1	Actual Marks	0	0	0	0
	Normalized Marks	-0.958	-0.969	-0.082	-0.521
C2	Actual Marks	23	14	12	49
	Normalized Marks	22.71	13.44	10.97	48.83
C3	Actual Marks	58	50	38	146
	Normalized Marks	58.74	47.05	38.09	146.53
C4	Actual Marks	38	23	22	83
	Normalized Marks	38.15	21.12	22.02	83.08