GOVERNMENT OF MAHARASHTRA State Common Entrance Test Cell

## Document on Equated Score Computation Method

CET CELL will be conducting examinations on multiple shifts for B.Ed. (General \& Special) \& B.Ed. ELCT-CET 2024. The candidates will be given different sets of questions in every shift and it is quite possible that in spite of all efforts of maintaining equivalence among various question papers, the difficulty level of these question papers administered in differentshifts may not be exactly the same. In order to overcome such a situation, Equated Score Computation method will be used for ensuring that candidates are neither benefitted nor disadvantaged due to the difficulty level of the examination.

The process of Equated Score Computation Method is an established practice for comparing candidate scores across multi shift papers and is similar to those being adopted in other large educational selection tests conducted in India, and similar methodology will be adopted for B.Ed. (General \& Special) \& B.Ed. ELCT-CET 2024.

## The Method includes the following steps.

Step 1 - Find the MEAN and STANDARD DEVIATION of ALL the students considering it as one group.

Step 2- Find the MEAN and STANDARD DEVIATION of all the sessions individually.
Step 3 - Find the STANDARD SCORE of each student with the respective MEAN and STANDARD DEVIATION of the session

STANDARD SCORE $=($ Total Marks - MEAN of the Batch $) /$ STANDARD DEVIATION of the BATCH

Step 4 - Find the EQUATED SCORES
EQAUTED SCORE $=($ STANDARD SCORE X STANDARD DEVIATION
considering all candidates as one group) + MEAN considering all candidates as one group

Step 5 - Once the EQUATED SCORES are calculated for all the candidates. Candidates with 0 score (raw score) should be considered with as 0 as they are not eligible for Admission Process

Step 6 - Round off the equated score to the nearest whole number.

Example: Suppose a test was held in 5 sessions of examinees as per details given below: -(Allocation of Days and shifts were done randomly)
(a) Distribution of candidates were as follows:

Session-1: Day-1 Batch 1, Session-2: Day-1 batch-2, Session-3: Day-2 Batch-1, Session- 4: Day-2 Batch-2, Session-5: Day-3 Batch 1

|  |  | No. of Candidates |  |  | Marks |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Session | Day/Batch | Absent | Present | Total | Highest | Lowest |
| $\mathbf{1}$ | D1 B1 | 1,347 | 13,736 | 15,083 | 84 | 2 |
| $\mathbf{2}$ | D1 B2 | 1,117 | 13,872 | 14,989 | 84 | 14 |
| $\mathbf{3}$ | D2 B1 | 1,291 | 14,478 | 15,769 | 84 | 30 |
| $\mathbf{4}$ | D2 B2 | 1,343 | 15,297 | 16,640 | 84 | 32 |
| $\mathbf{5}$ | D3 B1 | 1,493 | 14,995 | 16,488 | 84 | 42 |

Standard Score \& Equated Scores for each batch will be computed as follows for each batch:

| Roll <br> Number | Examinee <br> Name | Batch | Total <br> Questions | Attempted <br> Questions | In Correct <br> Answer | Correct <br> Answers | Total <br> Marks |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1001001 | ABC1 | D1 B1 | 100 | 100 | 16 | 84 | 84 |
| 1001002 | ABC2 | D1 B1 | 100 | 100 | 18 | 82 | 82 |
| 1001003 | ABC3 | D1 B1 | 100 | 100 | 20 | 80 | 80 |
| 1001004 | ABC4 | D1 B1 | 100 | 100 | 20 | 80 | 80 |
| 1001005 | ABC5 | D1 B1 | 100 | 100 | 20 | 80 | 80 |


| Roll <br> Number | Examinee <br> Name | Batch | Total <br> Score | Max <br> Marks | Standard <br> Score | Equated <br> Scores | Equated Scores <br> (Round) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1001001 | ABC1 | D1 B1 | 84 | 100 | 2.852891463 | 83.83537212 | $\mathbf{8 4}$ |
| 1001002 | ABC2 | D1 B1 | 82 | 100 | 2.687712247 | 81.84751666 | $\mathbf{8 2}$ |
| 1001003 | ABC3 | D1 B1 | 80 | 100 | 2.52253303 | 79.85966119 | $\mathbf{8 0}$ |
| 1001004 | ABC4 | D1 B1 | 80 | 100 | 2.52253303 | 79.85966119 | $\mathbf{8 0}$ |
| 1001005 | ABC5 | D1 B1 | 80 | 100 | 2.52253303 | 79.85966119 | $\mathbf{8 0}$ |


| Roll <br> Number | Examinee <br> Name | Batch | Total <br> Questions | Attempted <br> Questions | In Correct <br> Answer | Correct <br> Answers | Total <br> Marks |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1003944 | ABC1 | D1 B2 | 100 | 100 | 16 | 84 | 84 |
| 1003945 | ABC2 | D1 B2 | 100 | 100 | 18 | 82 | 82 |
| 1003946 | ABC3 | D1 B2 | 100 | 100 | 20 | 80 | 80 |
| 1003947 | ABC4 | D1 B2 | 100 | 100 | 20 | 80 | 80 |
| 1003948 | ABC5 | D1 B2 | 100 | 100 | 20 | 80 | 80 |


| Roll <br> Number | Examinee <br> Name | Batch | Total <br> Score | Max <br> Marks | Standard <br> Score | Equated <br> Scores | Equated Scores <br> (Round) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1003944 | ABC1 | D1 B2 | 84 | 100 | 2.869555181 | 84.03591226 | $\mathbf{8 4}$ |
| 1003945 | ABC2 | D1 B2 | 82 | 100 | 2.703139326 | 82.03317443 | $\mathbf{8 2}$ |
| 1003946 | ABC3 | D1 B2 | 80 | 100 | 2.536723472 | 80.03043659 | $\mathbf{8 0}$ |
| 1003947 | ABC4 | D1 B2 | 80 | 100 | 2.536723472 | 80.03043659 | $\mathbf{8 0}$ |
| 1003948 | ABC5 | D1 B2 | 80 | 100 | 2.536723472 | 80.03043659 | $\mathbf{8 0}$ |


| Roll Number | Examinee <br> Name | Batch | Total <br> Questions | Attempted <br> Questions | In Correct <br> Answer | Correct <br> Answers | Total <br> Marks |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1006883 | ABC1 | D2 B1 | 100 | 100 | 84 | 84 | 84 |
| 1006884 | ABC2 | D2 B1 | 100 | 100 | 82 | 82 | 82 |
| 1006885 | ABC3 | D2 B1 | 100 | 100 | 80 | 80 | 80 |
| 1006886 | ABC4 | D2 B1 | 100 | 100 | 80 | 80 | 80 |
| 1006887 | ABC5 | D2 B1 | 100 | 100 | 80 | 80 | 80 |


| Roll <br> Number | Examinee <br> Name | Batch | Total <br> Score | Max <br> Marks | Standard <br> Score | Equated <br> Scores | Equated Scores <br> (Round) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1006883 | ABC1 | D2 B1 | 84 | 100 | 3.023075155 | 85.88345413 | 86 |
| 1006884 | ABC2 | D2 B1 | 82 | 100 | 2.841799101 | 83.70188068 | 84 |
| 1006885 | ABC3 | D2 B1 | 80 | 100 | 2.660523048 | 81.52030722 | 82 |
| 1006886 | ABC4 | D2 B1 | 80 | 100 | 2.660523048 | 81.52030722 | 82 |
| 1006887 | ABC5 | D2 B1 | 80 | 100 | 2.660523048 | 81.52030722 | 82 |

And so on for all the batches. Subsequently, all the groups are collated based on the Equated Scores (Round) as follows for the computation of final result:

| Roll <br> Number | Examinee <br> Name | Batch | Total <br> Questions | Attempted <br> Questions | In Correct <br> Answer | Correct <br> Answers | Total <br> Marks |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1012761 | ABC1 | D2 B2 | 100 | 100 | 16 | 84 | 84 |
| 1009822 | ABC2 | D2 B2 | 100 | 100 | 16 | 84 | 84 |
| 1012762 | ABC3 | D2 B2 | 100 | 100 | 18 | 82 | 82 |
| 1006883 | ABC4 | D2 B2 | 100 | 100 | 16 | 84 | 84 |
| 1001001 | ABC5 | D2 B2 | 100 | 100 | 16 | 84 | 84 |
| 1003944 | ABC6 | D2 B2 | 100 | 100 | 16 | 84 | 84 |
| 1006884 | ABC7 | D2 B2 | 100 | 100 | 18 | 82 | 82 |


| Roll <br> Number | Examinee <br> Name | Batch | Total <br> Score | Max <br> Marks | Standard <br> Score | Equated <br> Scores | Equated Scores <br> (Round) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1012761 | ABC1 | D2 B2 | 84 | 100 | 3.364732216 | 89.99513882 | $\mathbf{9 0}$ |
| 1009822 | ABC2 | D2 B2 | 84 | 100 | 3.076224867 | 86.52308633 | $\mathbf{8 7}$ |
| 1012762 | ABC3 | D2 B2 | 82 | 100 | 3.131090193 | 87.18336515 | $\mathbf{8 7}$ |
| 1006883 | ABC4 | D2 B2 | 84 | 100 | 3.023075155 | 85.88345413 | $\mathbf{8 6}$ |
| 1001001 | ABC5 | D2 B2 | 84 | 100 | 2.852891463 | 83.83537212 | $\mathbf{8 4}$ |
| 1003944 | ABC6 | D2 B2 | 84 | 100 | 2.869555181 | 84.03591226 | $\mathbf{8 4}$ |
| 1006884 | ABC7 | D2 B2 | 82 | 100 | 2.841799101 | 83.70188068 | $\mathbf{8 4}$ |

NOTE: The roll numbers, attendance counts, and score provided in the above table are only for representational purpose.

