NOTICE

The Computer Based Test (CBT) for the post of Clerk and Peon will be conducted on 15-Nov-2024 to 17-Nov-2024. Each examination will be held in multiple shifts, with different question sets for each shift.

Please note that the Equi-percentile Method will be applied to normalize the examination scores for the post of Clerk and Peon.

Details regarding the Equi-percentile Method are provided in Annexure-I.

Candidates are encouraged to check the official website of CDCC Bank Chandrapur regularly for updates.

15/11/2024

CEO
CDCC Bank

Annexure-I

Methodology adopted for Normalization of score for CBT of

CLERK and PEON

(Pl. Note that the imaginary dates & figures are given in this presentation for illustration purpose only)

Percentage (%)

Percentage is a number or ratio expressed as a fraction of 100.

Example:

A candidate has obtained 180 marks out of 200 Maximum marks. Then the % of marks calculated as

$$\frac{180}{200} \times 100 = 90\ \%$$

Percentile

Percentile of a candidate will reflect how many candidates have scored below that candidate in that batch.

$$\text{Percentile of candidate} = \frac{\text{Number of Candidates scored marks less than particular marks in the Examination in that particular respective Batch}}{\text{Total number of Candidates appeared for the Examination for that particular respective Batch}} \times 100$$

Therefore, Percentage and Percentile are two different terms.

Example of Percentile

Example: Assume that total number of Candidates appeared for examination in a particular batch are 14,618. Top Five Candidates have scored 165 marks, what is the percentile of each Candidate?

Data:

1. Total no. of Candidates appeared = 14,618
2. Number of Candidates having marks 165 = 05 no.
3. Number of Candidates having marks below 165 = 14,618 - 05 = 14,613

Percentile of Candidate having marks 165 = (14,618-5)/14,618 X100 = 99.9657 = 99.966

Hence percentile of each Candidates having marks 165 is 99.966

Why Equi-percentile

- As the examination is conducted in multiple Shifts, the question papers were different for each Shift, the marks **scoring pattern** depends upon the difficulty level and it varies from Shift to Shift.

- Due to this variation, Equi-percentile Method for normalization of marks is adopted to take care of the difference in difficulty level, so that no candidate feels he/she is at a loss because he/she attempted a Shift which had tougher set of questions.

Number of candidates appeared

Date	No. of Candidates appeared	
	Shift 1	Shift 2
08th Sep. 2015	14,618 (Batch I)	14,817 (Batch II)
09th Sept 2015	14,103 (Batch III)	

Evaluation

Number of questions considered for Evaluation

Day	Shift	Total questions	No. of questions to be eliminated for evaluation	No. of questions to be considered for evaluation
08th Sep., 2015	Shift 1	200	19	200-19=181
	Shift 2	200	18	200-18=182
09th Sep., 2015	Shift 1	200	11	200-11=189
	Shift 2	200	11	200-11=189

Percentile calculation

Percentile of candidate obtained in the respective batch is calculated batch wise *i.e., B*atch I, Batch II, and Batch III using following formula;

$$\text{Percentile} = \frac{\text{Number of Candidates scored marks less than particular marks in the CBT 2017 in that particular respective Batch}}{\text{Total number of Candidates appeared for the CBT for that particular respective Batch}} \times 100$$

CBT-2017

- **Calculation of Percentile of particular Candidate of Batch-I(Shift 1, 10.0 am, 08/09/2017)**
- *Total number of Candidates appeared for the CBT-2017 for Batch I =* **14,618**

  Percentile Calculation for the Candidate scored 165 marks.
- There are **05** Candidates scoring 165 marks
- *Number of Candidates scored marks less than 165 marks in the CBT-2017 in Batch I= 14613*

Number of Candidates scored marks less than 165 marks in the Percentile of Candidate CBT-2017 in Batch-I having 165 marks $= \frac{\text{Number of Candidates scored marks less than 165 marks in the Percentile of Candidate CBT-2017 in Batch-I having 165 marks}}{\text{Total number of Candidates appeared for the CBT-2017 for Batch I}} \times 100$

Percentile of Candidate having 165 marks (Rounded up to 3 decimal places) $= \frac{14,613}{14,618} \times 100 =$ ***99.966***

Calculation of Percentile of Shift-1 (Batch-I)

Number of Candidates appeared 14,618

Score out of 181	Total No. of Candidates	Cumulative total Candidates	No. of Candidates below	Percentile
165	5	5	14,618-5=14,613	99.966
163	4	9	14,618-9=14,609	99.938
162	6	15	14,618-15=14,603	99.897
161	11	26	14,618-26=14,592	99.822

Percentile of Candidate having marks 165 = (14,618-5)/14,618 X100 = 99.9657 = 99.966

Percentile of Candidate having marks 163 = (14,618-9)/14,618 X100 = 99.9384 = 99.938

Percentile of Candidate having marks 162 = (14,618-15)/14,618 X100 = 99.8973 = 99.897

Percentile of Candidate having marks 161 = (14,618-26)/14,618 X100 = 99.8221 = 99.822

CBT-2017

- **Calculation of Percentile for Batch II (Shift 2, 12.30 pm, 08/09/2017)**
- *Total number of Candidates appeared for the CBT-2017 for Batch II =* **14,817**
  Percentile Calculation for the Candidate scored 155 marks out of 182.
- There **only one** Candidate scoring 155 marks
- *Number of Candidates scored marks less than 155 marks in the CBT-2017 in Batch II= 14,816*

$$\text{Percentile of Candidate having 155 marks} = \frac{\text{Number of Candidates scored marks less than 155 marks in the CBT-2017 in Batch II}}{\text{Total number of Candidates appeared for the CBT for Batch II}} \times 100$$

$$\text{Percentile of Candidate having 155 marks (Rounded up to 3 decimal places)} = \frac{14,816}{14,817} \times 100 = \mathbf{99.993}$$

Calculation of Percentile of Shift-2 (Batch-II)

Number of Candidates appeared 14,817

Score out of 182	Total No. of Candidates	Cumulative total Candidates	No. of Candidates below	Percentile
155	1	1	14,817-1=14,816	99.993
152	5	6	14,817-6=14,811	99.960
151	1	7	14,817-7=14,810	99.953
150	1	8	14,817-8=14,809	99.946

Percentile of Candidate having marks 155 = (14,817-1)/14,817 X100 = 99.99325 = 99.993

Percentile of Candidate having marks 152 = (14,817-6)/14,817 X100 = 99.95950 = 99.960

Percentile of Candidate having marks 151 = (14,817-7)/14,817 X100 = 99.95275 = 99.953

Percentile of Candidate having marks 150 = (14,817-8)/14,817 X100 = 99.94600 = 99.946

Effect of Number of Candidates Scoring Same marks on percentile calculation

Example: Considering Batch I data
Total number of candidates appeared = 14,618

Score out of 181	Score out of 200	Total Candidates scoring 165 marks	No. of Candidates below 165	Percentile
165	182.320	1	14,617	**99.993**
165	182.320	2	14,616	**99.986**
165	182.320	3	14,615	**99.979**
165	182.320	4	14,614	**99.973**
165	182.320	5	14,613	**99.966**

Effect of Number of Candidates Scoring Same score on percentile calculation

The percentile is depending upon how many Candidates are having score below that particular score.

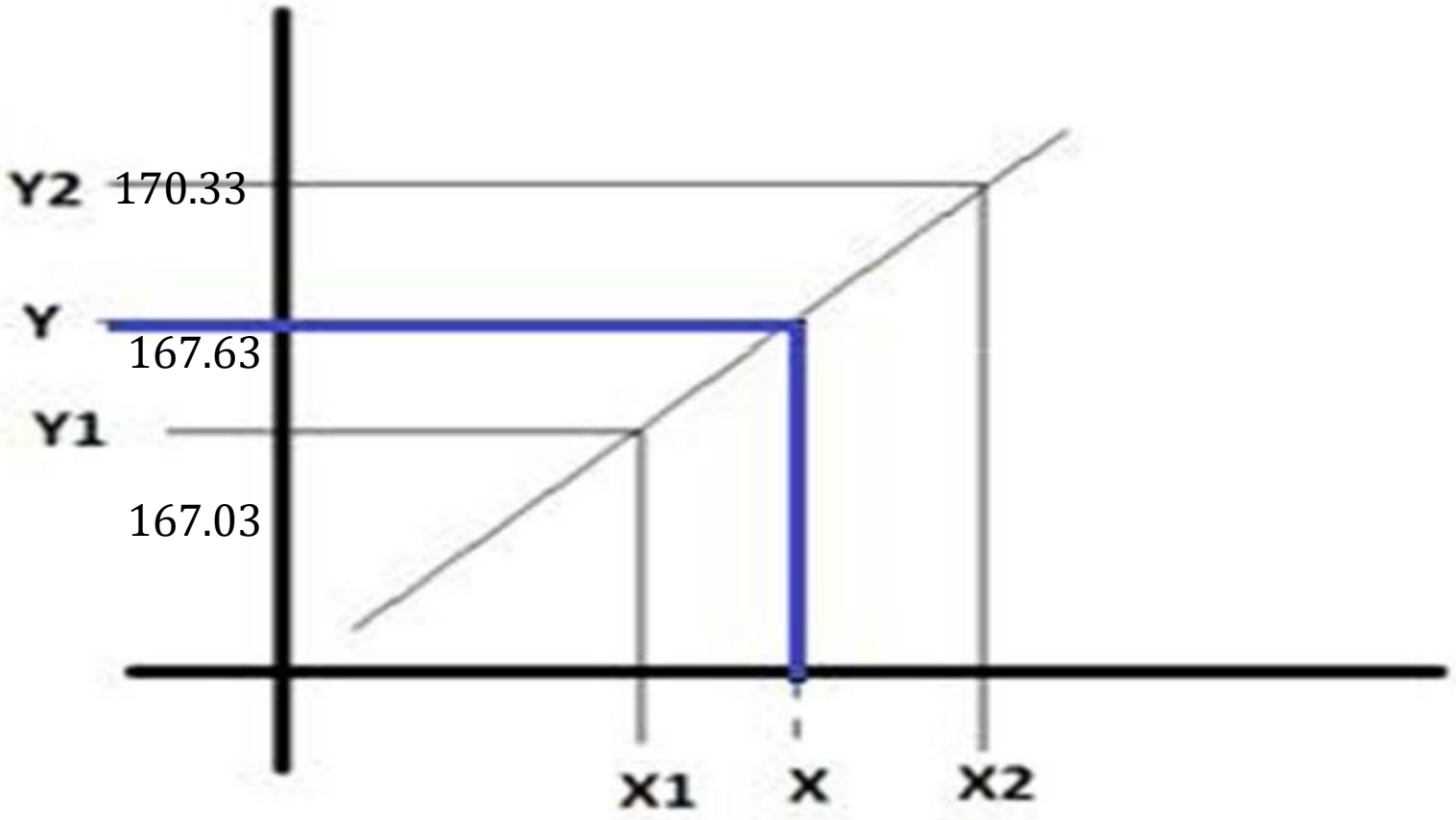
How and what is equated

- Batch II percentile scale is considered as Reference, as the number of Candidates appeared is more.
- Take the percentile of any batch other than Batch II
- Locate the percentile in the Batch II percentile scale to map.
- If does not map follow the interpolation method and find out the corresponding marks.
- The values of percentiles are arranged in the descending order irrespective of the score obtained.
- **The values of percentiles are the same as in their respective batches.**

Reference - Percentile scale of Batch II

08th Sep. 2015 @ 12.30 pm Shift 2 Number of Candidates appeared: 14,817			
Score out of 182	**Score out of 200**	**Percentile**	**Total Candidates having same marks**
155	**170.330**	**99.993**	1
152	**167.033**	**99.960**	5
151	**165.934**	**99.953**	1
150	**164.835**	**99.946**	1
149	**163.736**	**99.939**	1
148	**162.637**	**99.926**	2

Interpolation for unmapped percentile



99.960 99.966 99.993

Interpolation for un-mapped percentile

$$Y = Y1 + \frac{(Y2 - Y1)}{(X2 - X1)} * (X - X1)$$

Where;

Y = Equated Score rounded up to 2 decimal places

Y1 = Marks corresponding to immediate lower percentile form Batch II

Y2 = Marks corresponding to immediate upper percentile form Batch II

X1 = Immediate lower percentile form Batch II

X2 = Immediate upper percentile form Batch II

X = Percentile of the Candidate of the respective Batch

Equating Batch I candidates

Score out of 181	Score out of 200	Percentile	Total Candidates having same score	Equated Score
165	182.320	99.966	5	167.63
163	180.110	99.938	4	163.66
162	179.006	99.897	6	160.36
161	177.901	99.822	11	158.02
160	176.796	99.740	12	156.79

Merit for Selection

• As the merit list will be based on the **percentile** The selection of Batch I or Batch II or Batch III as reference, will not affect the percentile of the candidate.

5.1.2 Relative merit in case of equal marks and equal percentile:

In the case of candidates securing equal CBT-2017 percentile, their relative merit will be determined on the basis of the following order of preference:

i) Candidate who is older in age will be placed higher in the merit
ii) If the date of birth is also same, then the names are to be arranged in alphabetical order to determine the merit.

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