Dear Parents,

The following circular has been received from the C.I.S.C.E regarding the methodology for allocation of marks for the I.C.S.E. Examination of 2020. This is being forwarded as received.

Principal
Date: 03-07-20 20

CISCE FORMULAE - ICSE

Marks imputation formulae for the remaining ICSE Year 2020 Examination *have been devised by reputed Statisticians from Premier Institutions in the Country.*

FACTORS USED IN THE COMPUTATIONS

1. **Average of a candidate's best three papers marks in the board examination (A):** The average of the best three percentage marks obtained from among the papers the candidate has appeared for in the board examination.

2. **Subject internal assessment**: Total marks obtained by the candidate in the internal assessment of the papers.

3. **Percentage subject internal assessment (B):** Percentage of marks obtained by the candidate in the internal assessment of the paper. Note that it is the marks obtained for internal assessment, expressed as a percentage.

Rationale:

1. The components used to arrive at the formula to award the marks in the papers which have an internal assessment component is limited to the internal assessment marks in the papers and the performance of the candidates in the board examination in the papers that they have already appeared for so far, measured through their average marks obtained in the best three papers. While the former measures the subject proficiency of the candidates, the latter is a measure of their general academic ability.

2. The marks awarded to the candidates are taken as a weighted average of these two components as mentioned in Point 1 above.

3. To arrive at the weight, detailed analyses were performed on the data from the past board examinations from the years 2015 to 2019 as well as the year 2020 board examination. Extensive scenario analyses were done based on different papers. Most importantly, the weights were so chosen as to ensure fairness to all the candidates appearing in the Board Examination this year to the best possible extent.

ALGORITHM TO BE USED:

1. For pending examinations having components of internal assessments i.e. Geography, Biology, Economics, Hindi and Group III papers:

   a) Obtain the Paper Board Marks Percentage (percentage of marks obtained by the algorithm which may be awarded to the candidate for the board examination in the paper) by:

   PAPER BOARD MARKS PERCENTAGE = 0.7 A + 0.3 B

   b) Determine the board marks for the paper as:

   PAPER BOARD MARKS = PAPER BOARD MARKS PERCENTAGE × WEIGHTAGE FOR BOARD MARKS

   For Hindi, Geography, Biology and Economics, the board marks are out of 80, and hence the weightage for board marks should be 0.8.

   For the Group III with internal assessment, the board marks are out of 100, hence the weightage will be equal to 1.

   c) For Art 4, use the Paper Board Marks and calculate the marks for the paper as the final marks. For all other papers with internal assessment components, obtain the final marks as:

   PAPER FINAL MARKS = PAPER BOARD MARKS + PAPER INTERNAL ASSESSMENT

2. For candidates who have appeared in three papers, take the best two, and for candidates who have appeared for two papers, take the better one. For a candidate who has appeared in only one paper, that paper can be considered.

NOTE:

1. To compute any average, convert all marks to percentage scores.

2. For candidates who were registered to appear for improvement of marks but have not been able to appear for any paper, their paper board percentage marks should be obtained by replacing A in the formula given in 1 (a) by their previously obtained percentage marks in the last board paper of that subject taken by them.

EXAMPLES:

Example 1: For a paper with 20% marks allocated for internal marks and 80% for external marks: (For example, Geography, Biology, Economics and Hindi):

Suppose for a candidate the average marks of the best three board papers (A) = 75 (out of 80)

Internal Assessment in the paper = 19 out of 20

Predicted percentage board marks in the paper = $0.7 \times 75 \times (100/80) + 0.3 \times 19 \times (100/20) = 94.125$

Predicted board marks in the paper = $94.125 \times 0.8 = 75.3$

Final marks in the paper = $75.3 + 19 = 94.3$

Example 2: For a paper with 20% marks allocated for internal marks and 80% for external marks: (For example, Geography, Biology, Economics and Hindi):

Suppose for a candidate the average marks of the best three board papers (A) = 60 (out of 80)

Internal Assessment in the paper = 17 out of 20

Predicted percentage board marks in the paper = $0.7 \times 60 \times (100/80) + 0.3 \times 17 \times (100/20) = 78$

Predicted board marks in the paper = $78 \times 0.8 = 62.4$

Final marks in the paper = $62.4 + 17 = 79.4$

Example 3: For a paper with 20% marks allocated for internal marks and 80% for external marks: (For example Geography, Biology, Economics and Hindi):

Suppose for a candidate the average marks of the best three board papers (A) = 40 (out of 80)

Internal Assessment in the paper = 15 out of 20

Predicted percentage board marks in the paper = $0.7 \times 40 \times (100/80) + 0.3 \times 15 \times (100/20) = 57.5$

Predicted board marks in the paper = $57.5 \times 0.8 = 46$

Final marks in the paper = $46 + 15 = 61$

Example 4: For a subject with 100% marks allocated for internal marks and 100% for external marks: (For example: Physical Education, Computer Applications, Economic Applications, Commercial Applications, Environmental Applications, …. Etc. - All Group III Papers):

Suppose for a candidate the average marks of the best three subjects (A) = 70 (out of 80) = 87.5 (out of 100)

Internal Assessment in the paper = 100 out of 100

Predicted percentage board marks in the paper = $0.7 \times 87.5 \times 1 + 0.3 \times 100 \times 1 = 91.25$

Predicted board marks in the paper = $91.25 \times 1 = 91.25$

Final marks in the paper = $(91.25 + 100)/2 = 95.63$