

The Edit Checks

1. Serial number should be unique and in sequential order. *Repeat*
2. Industrial sector must be in the range 1-5. *✓*
3. Ward/ C.S. division, ~~MC/UC~~, A.G.A. must be present and GS/Ward of respective A.G.A's or MC/UC's must be in accordance with the given District Code List. *Invald with DIST CD LST*
4. Electorate code must lie in the range 001-160. *✓*
5. District code must lie in the range 01-24 and should be equal to 1st two digits of serial number. *✓*
6. Industry (ISIC) four digit code (41) must be present. *✓*
7. The last two digits of the serial number should lie in the range of 01-99 \Rightarrow 00-99. *✓*
8. In questions 12,13,14 and 15 if any field is present, it should be neumeric. *✓*
9. (a) In 12 (I), 8 digit industry code is present then it should corresponds to a one in given commodity code list and its 1st four digits must be the same as industry (ISIC) four digit code (II). *✓*
- ✓ (b) In 12 (III) the present unit codes must corresponds to a one appearing in given product-code-list. *✓*
10. (a) If $q(i)_j \neq$ blank for any $j = 1 \dots 9$. then,

$$\textcircled{2} \begin{cases} E1 \quad \checkmark (I) \quad q(vi)_j + q(xiv)_j - q(xii)_j > 0 \quad \checkmark \\ E2 \text{ and } \checkmark (II) \quad q(v)_j + q(xiii)_j - q(xi)_j > 0 \quad \checkmark \end{cases}$$

for that j.
- ✓ (b) If $q(i)_{10} \neq$ blank then $q(vi)_{10} > 0$. *✓*

excluded, 11. (a) If any field from $q(iii)_j$ to $q(xix)_j$ is present, $q(i)_j$ should be present.

- $\textcircled{1} \begin{cases} E3 \\ E4 \end{cases}$

\checkmark (b) For $j = 1 \dots 8$, $q(iii)_j =$ blank, then $q(i)_j =$ blank. *✓*
 \checkmark (c) For all ISIC codes other than major 2, if $q(i)_j$ is present, $q(iv)_j$ should be present. *✓*

12. For $j = 1 \dots 8$.

- $\textcircled{1} \begin{cases} E5 \\ E6 \\ E7 \end{cases}$

\checkmark (a) if $q(v)_j =$ blank, then $q(vi)_j =$ blank and vice-versa. *✓*
 \checkmark (b) if $q(vii)_j =$ blank, then $q(viii)_j =$ blank and vice-versa. *✓*
 \checkmark (c) $q(v)_j \geq q(viii)_j$. *✓*

13. For ISIC Major Division 3 and $j = 1 \dots 8$

$\textcircled{2} E8$

$$R_j = \underbrace{q(ix)_j}_{\text{Imp}} + \underbrace{q(x)_j}_{\text{Total}} + q(xv)_j + q(xvii)_j - q(xvi)_j - q(xviii)_j > 0 \quad \checkmark$$

Imp *Total*

Contd...

14. For $j = 1 \dots 8$.

- ✓ E9(a) if $q(x_i)_j = \text{blank}$, then $q(x_{ii})_j = \text{blank}$ and vice-versa.
 E10(b) if $q(x_{iii})_j = \text{blank}$, then $q(x_{iv})_j = \text{blank}$ and vice-versa.

15. (a) If $q(x_{ix})a_j$ or $q(x_{ix})b_j$ is present they must lie in the range (01 - 30).

(b) The code in $q(x_{ix})a_j$ is present, the value of $q(v_i)_j$ should lie in the range corresponding to the code in $q(x_{ix})a_j$

(List of ranges & corresponding codes given)

✓ (c) The code in $q(x_{ix})b_j$ is present, the value of $q(x_{iv})_j$ should lie in the range corresponding to the code in $q(x_{ix})b_j$.

(List of ranges & corresponding codes given).

✓ 16. For $j = 1 \dots 8$. ~~UNT/AT/UL~~ (E9) ~~2~~ $j = 1 \dots 8$

✓ If $R(ii)_j \neq \text{blank}$, then $R(iii)_j$ or $R(iv)_j$ or both present and vice-versa.

✓ 17. (a) $T(ii)_{3a} \neq \text{blank}$, then $T(iii)_{3a} \neq \text{blank}$ and vice-versa.
 ER-1710 ✓ (b) $T(ii)_{3b} \neq \text{blank}$, then $T(iii)_{3b} \neq \text{blank}$ and vice-versa.
 ER-1716 ✓

✓ 18. For all ISIC codes other than major division 2, if $q(i)_j$ is present and $q(iv)_j = \text{blank}$, replace $q(iv)_j$ by $q(v)_j + q(x_{iii})_j$
 $- q(x_i)_j$ (imputation) 1002 22

✓ 19. If $R(iii)_j \neq \text{blank}$, then $R(iv)_j \neq \text{blank}$ or vice-versa.
 Otherwise impute missing $R(iii)_j$ or $R(iv)_j$ as follows.

$$\text{Define } P_j = \frac{R(iv)_j}{R(iii)_j} \text{ for } j=1 \dots 8.$$

$$\text{so that } R(iv)_j = \frac{1}{P_j} \times R(iii)_j$$

$$\text{or } R(iii)_j = \frac{1}{P_j} \times R(iv)_j$$

When both $R(iii)_j$ and $R(iv)_j$ are present, check the calculated P_j is within the given range. If not impute $R(iv)_j$ by considering $R(iii)_j$ to be correct and taking value of P_j to be equal to the mid point of the given range.

1.00	≤	P_1	≤	3.00
5.00	≤	P_2	≤	15.00
0.50	≤	P_3	≤	2.00
12.00	≤	P_4	≤	14.00
7.00	≤	P_5	≤	8.50
5.50	≤	P_6	≤	8.00
5.00	≤	P_7	≤	7.00
30.00	≤	P_8	≤	150.00

(Imputation)

Contd...

20. Define (a) Output Quantity ... O_{qj}

(b) Output Value O_{vj}

(c) Raw material Consumption R_{cj}

(e) Input Value ... I_v

as follows

(a) $O_{qj} = q(v)_j + q(xiii)_j - q(xi)_j$ for $j = 1...8$ $\uparrow \theta \uparrow$

(b) $O_{vj} = q(vi)_j + q(xiv)_j - q(xii)_j$, for $J = 1...9$ $\uparrow \downarrow$

(c) $R_{cj} = q(ix)_j + q(x)_j + q(xv)_j + q(xvii)_j - q(xvi)_j$

(d) $I_v = \sum_{j=1}^{10} R_{cj} + \sum_{j=1}^9 R_{(iv)_j}$ (e). $O_v = \sum_{j=1}^9 O_{vj} + q(vi)_{10}$ \uparrow

(e). $O_v = \sum_{j=1}^9 O_{vj} + q(vi)_{10}$

E11 (iv) (1) If $O_{qj} \neq \text{Zero}$, then $O_{vj} \neq \text{Zero}$ and vice-versa for $J = 1...8$

E12 (v) (2) (1) For $J = 1 \dots 9$, $O_{vj} > R_{cj}$ otherwise reject.

E13 (vi) (ii) $q(vi)_{10} > q(ix)_{10} + q(x)_{10} + q(xv)_{10} + q(xvii)_{10} - q(xvi)_{10} - q(xviii)_{10}$ otherwise reject.

ie $[q(vi)_{10} > R_{c,10}]$

ER-20 (3) (3) $O_v > I_v + T(iii)_4$ otherwise reject. $\uparrow \downarrow$

Structural Checks

1) Check Record Types 101 & 102 must be present.

if one of

2) Record Types 111, 121, 131, 141, 151, 161, 171, 181, 191 is present then corresponding Record Types 112, 122, 132, 142, 152, 162, 172, 182, 192 should be present.

3) Record Types 200, ~~250~~ 250, 300, 400 should be present.

4/10.

v.s.

(1) In records 181 and 191 fields 12(iii), 12(iv), 12(v) & 12(vii) must be blank.

2) In records 182 fields 12(xi), 12(xiii) must be blank.

3) In record 192 fields 12(xi), 12(xii), 12(xiii), 12(xiv) must be blank.

191 \rightarrow 13(vi)

192 \rightarrow 13(xix)

} are the only fields present