

$$U_5(\mathbf{2}) \pmod{3}$$

|       | blocks             | defect | matrix                             |
|-------|--------------------|--------|------------------------------------|
| $G :$ | 1                  | 5      | $42 \times 7$                      |
|       | 2                  | 1      | $3 \times 1$                       |
|       | 3                  | 0      | $1215_1 = \chi_{46}, \varphi_9$    |
|       | $4 = \overline{3}$ | 0      | $1215_2 = \chi_{47}, \varphi_{10}$ |

| <b>Block 1:</b>     | $\varphi_1$ | $\varphi_2$ | $\varphi_3$ | $\varphi_4$ | $\varphi_5$ | $\varphi_6$ | $\varphi_7$ |
|---------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| $1_1 = \chi_1$      | 1           | .           | .           | .           | .           | .           | .           |
| $10_1 = \chi_2$     | .           | 1           | .           | .           | .           | .           | .           |
| $11_1 = \chi_3$     | 1           | 1           | .           | .           | .           | .           | .           |
| $11_2 = \chi_4$     | 1           | 1           | .           | .           | .           | .           | .           |
| $44_1 = \chi_5$     | .           | .           | 1           | .           | .           | .           | .           |
| $55_1 = \chi_6$     | .           | .           | .           | 1           | .           | .           | .           |
| $55_2 = \chi_7$     | 1           | 1           | 1           | .           | .           | .           | .           |
| $55_3 = \chi_8$     | 1           | 1           | 1           | .           | .           | .           | .           |
| $66_1 = \chi_9$     | 1           | 1           | .           | 1           | .           | .           | .           |
| $66_2 = \chi_{10}$  | 1           | 1           | .           | 1           | .           | .           | .           |
| $110_1 = \chi_{11}$ | .           | .           | .           | .           | .           | 1           | .           |
| $110_2 = \chi_{12}$ | 1           | 1           | 1           | 1           | .           | .           | .           |
| $110_3 = \chi_{13}$ | 1           | 1           | 1           | 1           | .           | .           | .           |
| $110_4 = \chi_{14}$ | .           | 1           | .           | .           | 1           | .           | .           |
| $110_5 = \chi_{15}$ | .           | 1           | .           | .           | 1           | .           | .           |
| $120_1 = \chi_{16}$ | 1           | 2           | 1           | 1           | .           | .           | .           |
| $165_1 = \chi_{17}$ | 1           | 2           | 1           | .           | 1           | .           | .           |
| $176_1 = \chi_{18}$ | 1           | 2           | .           | 1           | 1           | .           | .           |
| $220_1 = \chi_{19}$ | .           | 1           | .           | .           | 1           | 1           | .           |
| $220_2 = \chi_{20}$ | .           | 1           | .           | .           | 1           | 1           | .           |
| $220_3 = \chi_{21}$ | 1           | 2           | 1           | 1           | 1           | .           | .           |
| $220_4 = \chi_{22}$ | 1           | 2           | 1           | 1           | 1           | .           | .           |
| $264_1 = \chi_{23}$ | .           | 1           | 1           | .           | 1           | 1           | .           |
| $264_2 = \chi_{24}$ | .           | 1           | 1           | .           | 1           | 1           | .           |
| $320_1 = \chi_{25}$ | .           | 1           | .           | .           | 2           | 1           | .           |
| $330_1 = \chi_{26}$ | 1           | 2           | 1           | 1           | 1           | 1           | .           |
| $330_2 = \chi_{27}$ | 1           | 2           | 1           | 1           | 1           | 1           | .           |
| $440_1 = \chi_{28}$ | .           | .           | .           | 1           | .           | .           | 1           |
| $440_2 = \chi_{29}$ | 1           | 3           | 1           | 1           | 2           | 1           | .           |
| $440_3 = \chi_{30}$ | 1           | 3           | 1           | 1           | 2           | 1           | .           |
| $495_1 = \chi_{31}$ | .           | 3           | .           | 1           | 3           | 1           | .           |
| $495_2 = \chi_{32}$ | .           | 3           | .           | 1           | 3           | 1           | .           |
| $495_3 = \chi_{33}$ | .           | .           | .           | .           | .           | 1           | 1           |
| $495_4 = \chi_{34}$ | .           | .           | .           | .           | .           | 1           | 1           |
| $660_1 = \chi_{35}$ | 1           | 2           | 1           | 2           | 1           | .           | 1           |
| $704_1 = \chi_{36}$ | .           | 1           | 1           | 1           | 1           | 1           | 1           |
| $704_2 = \chi_{37}$ | .           | 1           | 1           | 1           | 1           | 1           | 1           |
| $880_1 = \chi_{38}$ | 1           | 3           | 1           | 2           | 2           | 1           | 1           |
| $880_2 = \chi_{39}$ | 1           | 3           | 1           | 2           | 2           | 1           | 1           |
| $990_1 = \chi_{43}$ | .           | 3           | .           | 1           | 3           | 2           | 1           |

| ( <b>Block 1:</b> )  | $\varphi_1$ | $\varphi_2$ | $\varphi_3$ | $\varphi_4$ | $\varphi_5$ | $\varphi_6$ | $\varphi_7$ | $\varphi_1 = 1_1$   |
|----------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|---------------------|
| $990_2 = \chi_{44}$  | .           | 3           | .           | 1           | 3           | 2           | 1           | $\varphi_2 = 10_1$  |
| $1024_1 = \chi_{45}$ | .           | 2           | 1           | 1           | 3           | 2           | 1           | $\varphi_3 = 44_1$  |
|                      |             |             |             |             |             |             |             | $\varphi_4 = 55_1$  |
|                      |             |             |             |             |             |             |             | $\varphi_5 = 100_1$ |
|                      |             |             |             |             |             |             |             | $\varphi_6 = 110_1$ |
|                      |             |             |             |             |             |             |             | $\varphi_7 = 385_1$ |

| <b>Block 2:</b>     | $\varphi_8$ |                     |
|---------------------|-------------|---------------------|
| $891_1 = \chi_{40}$ | 1           | $\varphi_8 = 891_1$ |
| $891_2 = \chi_{41}$ | 1           |                     |
| $891_3 = \chi_{42}$ | 1           |                     |