Вариант – 26

Задание 7. Поиск минимального покрытия таблицы покрытий.

Заданы таблица покрытий. Построить хотя бы одно минимальное покрытие.

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| R | b1 | b2 | b3 | b4 | b5 | b6 | b7 | b8 | b9 | c |
| A | 1 | 1 |  |  |  |  | 1 |  |  | 2 |
| B |  |  |  | 1 | 1 |  |  |  | 1 | 2 |
| C |  |  |  | 1 |  | 1 | 1 | 1 |  | 2 |
| D |  | 1 |  |  |  | 1 |  |  | 1 | 1 |
| E | 1 |  | 1 | 1 |  | 1 |  |  |  | 3 |
| F |  |  | 1 |  | 1 |  |  | 1 |  | 1 |
| G |  | 1 |  |  | 1 |  | 1 | 1 | 1 | 4 |
| H |  | 1 |  |  |  | 1 |  |  |  | 3 |

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| R | b1 | b2 | b3 | b4 | b5 | b6 | b7 | b8 | b9 | c |
| A | 1 | 1 |  |  |  |  | 1 |  |  | 2 |
| B |  |  |  | 1 | 1 |  |  |  | 1 | 2 |
| C |  |  |  | 1 |  | 1 | 1 | 1 |  | 2 |
| D |  | 1 |  |  |  | 1 |  |  | 1 | 1 |
| E | 1 |  | 1 | 1 |  | 1 |  |  |  | 3 |
| F |  |  | 1 |  | 1 |  |  | 1 |  | 1 |
| G |  | 1 |  |  | 1 |  | 1 | 1 | 1 | 4 |
| H |  | 1 |  |  |  | 1 |  |  |  | 3 |

1)

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| R | b1 | b2 | b3 | b4 | b5 | b6 | b7 | b8 | b9 | c |
| A | 1 | 1 |  |  |  |  | 1 |  |  | 2 |
| B |  |  |  | 1 | 1 |  |  |  | 1 | 2 |
| C |  |  |  | 1 |  | 1 | 1 | 1 |  | 2 |
| D |  | 1 |  |  |  | 1 |  |  | 1 | 1 |
| E | 1 |  | 1 | 1 |  | 1 |  |  |  | 3 |
| F |  |  | 1 |  | 1 |  |  | 1 |  | 1 |
| G |  | 1 |  |  | 1 |  | 1 | 1 | 1 | 4 |
| H |  | 1 |  |  |  | 1 |  |  |  | 3 |

2)

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| R | b1 | b2 | b3 | b4 | b5 | b6 | b7 | b8 | b9 | c |
| A | 1 | 1 |  |  |  |  | 1 |  |  | 2 |
| B |  |  |  | 1 | 1 |  |  |  | 1 | 2 |
| C |  |  |  | 1 |  | 1 | 1 | 1 |  | 2 |
| D |  | 1 |  |  |  | 1 |  |  | 1 | 1 |
| E | 1 |  | 1 | 1 |  | 1 |  |  |  | 3 |
| F |  |  | 1 |  | 1 |  |  | 1 |  | 1 |
| G |  | 1 |  |  | 1 |  | 1 | 1 | 1 | 4 |
| H |  | 1 |  |  |  | 1 |  |  |  | 3 |

1){A} (2)

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| R | b3 | b4 | b5 | b6 | b8 | b9 | c |
| B |  | 1 | 1 |  |  | 1 | 2 |
| C |  | 1 |  | 1 | 1 |  | 2 |
| D |  |  |  | 1 |  | 1 | 1 |
| E | 1 | 1 |  | 1 |  |  | 3 |
| F | 1 |  | 1 |  | 1 |  | 1 |
| G |  |  | 1 |  | 1 | 1 | 4 |
| H |  |  |  | 1 |  |  | 3 |

2){E} (3)

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| R | b2 | b5 | b7 | b8 | b9 | c |
| A | 1 |  | 1 |  |  | 2 |
| B |  | 1 |  |  | 1 | 2 |
| C |  |  | 1 | 1 |  | 2 |
| D | 1 |  |  |  | 1 | 1 |
| F |  | 1 |  | 1 |  | 1 |
| G | 1 | 1 | 1 | 1 | 1 | 4 |
| H | 1 |  |  |  |  | 3 |

1){A} (2)

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| R | b3 | b4 | b5 | b6 | b8 | b9 | c |
| B |  | 1 | 1 |  |  | 1 | 2 |
| C |  | 1 |  | 1 | 1 |  | 2 |
| D |  |  |  | 1 |  | 1 | 1 |
| E | 1 | 1 |  | 1 |  |  | 3 |
| F | 1 |  | 1 |  | 1 |  | 1 |
| G |  |  | 1 |  | 1 | 1 | 4 |

2){E} (3)

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| R | b2 | b5 | b7 | b8 | b9 | c |
| A | 1 |  | 1 |  |  | 2 |
| B |  | 1 |  |  | 1 | 2 |
| C |  |  | 1 | 1 |  | 2 |
| D | 1 |  |  |  | 1 | 1 |
| F |  | 1 |  | 1 |  | 1 |
| G | 1 | 1 | 1 | 1 | 1 | 4 |

1.1){A} (2)

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| R | b3 | b4 | b5 | b6 | b8 | b9 | c |
| B |  | 1 | 1 |  |  | 1 | 2 |
| C |  | 1 |  | 1 | 1 |  | 2 |
| D |  |  |  | 1 |  | 1 | 1 |
| E | 1 | 1 |  | 1 |  |  | 3 |
| F | 1 |  | 1 |  | 1 |  | 1 |
| G |  |  | 1 |  | 1 | 1 | 4 |

1.2){A} (2)

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| R | b3 | b4 | b5 | b6 | b8 | b9 | c |
| B |  | 1 | 1 |  |  | 1 | 2 |
| C |  | 1 |  | 1 | 1 |  | 2 |
| D |  |  |  | 1 |  | 1 | 1 |
| E | 1 | 1 |  | 1 |  |  | 3 |
| F | 1 |  | 1 |  | 1 |  | 1 |
| G |  |  | 1 |  | 1 | 1 | 4 |

2.1){E} (3)

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| R | b2 | b5 | b7 | b8 | b9 | c |
| A | 1 |  | 1 |  |  | 2 |
| B |  | 1 |  |  | 1 | 2 |
| C |  |  | 1 | 1 |  | 2 |
| D | 1 |  |  |  | 1 | 1 |
| F |  | 1 |  | 1 |  | 1 |
| G | 1 | 1 | 1 | 1 | 1 | 4 |

2.2){E} (3)

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| R | b2 | b5 | b7 | b8 | b9 | c |
| A | 1 |  | 1 |  |  | 2 |
| B |  | 1 |  |  | 1 | 2 |
| C |  |  | 1 | 1 |  | 2 |
| D | 1 |  |  |  | 1 | 1 |
| F |  | 1 |  | 1 |  | 1 |
| G | 1 | 1 | 1 | 1 | 1 | 4 |

2.3){E} (3)

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| R | b2 | b5 | b7 | b8 | b9 | c |
| A | 1 |  | 1 |  |  | 2 |
| B |  | 1 |  |  | 1 | 2 |
| C |  |  | 1 | 1 |  | 2 |
| D | 1 |  |  |  | 1 | 1 |
| F |  | 1 |  | 1 |  | 1 |
| G | 1 | 1 | 1 | 1 | 1 | 4 |

1.1){A, E} (5)

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| R | b5 | b8 | b9 | c |
| B | 1 |  | 1 | 2 |
| C |  | 1 |  | 2 |
| D |  |  | 1 | 1 |
| F | 1 | 1 |  | 1 |
| G | 1 | 1 | 1 | 4 |

1.2){A, F} (3)

**2**

**1**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| R | b4 | b6 | b9 | c |
| B | 1 |  | 1 | 2 |
| C | 1 | 1 |  | 2 |
| D |  | 1 | 1 | 1 |
| E | 1 | 1 |  | 3 |
| G |  |  | 1 | 4 |

2.1){E, A} (5)

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| R | b5 | b8 | b9 | c |
| B | 1 |  | 1 | 2 |
| C |  | 1 |  | 2 |
| D |  |  | 1 | 1 |
| F | 1 | 1 |  | 1 |
| G | 1 | 1 | 1 | 4 |

Эта таблица идентична таблице 1.1, поэтому нет смысла ее решать.

2.2){E, D} (4)

**2**

**1**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| R | b5 | b7 | b8 | c |
| A |  | 1 |  | 2 |
| B | 1 |  |  | 2 |
| C |  | 1 | 1 | 2 |
| F | 1 |  | 1 | 1 |
| G | 1 | 1 | 1 | 4 |

2.3){E, G} (7)- готовое решение.

1.1){A, E} (5)

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| R | b5 | b8 | b9 | c |
| B | 1 |  | 1 | 2 |
| D |  |  | 1 | 1 |
| F | 1 | 1 |  | 1 |
| G | 1 | 1 | 1 | 4 |

1.2){A, F} (3)

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| R | b4 | b6 | b9 | c |
| B | 1 |  | 1 | 2 |
| C | 1 | 1 |  | 2 |
| D |  | 1 | 1 | 1 |

2.2){E, D} (4)

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| R | b5 | b7 | b8 | c |
| C |  | 1 | 1 | 2 |
| F | 1 |  | 1 | 1 |
| G | 1 | 1 | 1 | 4 |

1.1){A, E} (5)

|  |  |  |  |
| --- | --- | --- | --- |
| R | b8 | b9 | c |
| B |  | 1 | 2 |
| D |  | 1 | 1 |
| F | 1 |  | 1 |
| G | 1 | 1 | 4 |

1.2.1){A, F} (3)

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| R | b4 | b6 | b9 | c |
| B | 1 |  | 1 | 2 |
| C | 1 | 1 |  | 2 |
| D |  | 1 | 1 | 1 |

1.2.2){A, F} (3)

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| R | b4 | b6 | b9 | c |
| B | 1 |  | 1 | 2 |
| C | 1 | 1 |  | 2 |
| D |  | 1 | 1 | 1 |

2.2){E, D} (4)

|  |  |  |  |
| --- | --- | --- | --- |
| R | b5 | b7 | c |
| C |  | 1 | 2 |
| F | 1 |  | 1 |
| G | 1 | 1 | 4 |

1.1){A, E} (5)

|  |  |  |  |
| --- | --- | --- | --- |
| R | b8 | b9 | c |
| D |  | 1 | 1 |
| F | 1 |  | 1 |
| G | 1 | 1 | 4 |

1.2.1){A, F, B} (5)

|  |  |  |
| --- | --- | --- |
| R | b6 | c |
| C | 1 | 2 |
| D | 1 | 1 |

1.2.2){A, F, C} (5)

|  |  |  |
| --- | --- | --- |
| R | b9 | c |
| B | 1 | 2 |
| D | 1 | 1 |

2.2.1){E, D} (4)

|  |  |  |  |
| --- | --- | --- | --- |
| R | b5 | b7 | c |
| C |  | 1 | 2 |
| F | 1 |  | 1 |
| G | 1 | 1 | 4 |

2.2.2){E, D} (4)

|  |  |  |  |
| --- | --- | --- | --- |
| R | b5 | b7 | c |
| C |  | 1 | 2 |
| F | 1 |  | 1 |
| G | 1 | 1 | 4 |

1.1.1){A, E} (5)

|  |  |  |  |
| --- | --- | --- | --- |
| R | b8 | b9 | c |
| D |  | 1 | 1 |
| F | 1 |  | 1 |
| G | 1 | 1 | 4 |

1.1.2){A, E} (5)

|  |  |  |  |
| --- | --- | --- | --- |
| R | b8 | b9 | c |
| D |  | 1 | 1 |
| F | 1 |  | 1 |
| G | 1 | 1 | 4 |

1.2.1){A, F, B} (5)

|  |  |  |
| --- | --- | --- |
| R | b6 | c |
| D | 1 | 1 |

1.2.2){A, F, C} (5)

|  |  |  |
| --- | --- | --- |
| R | b9 | c |
| D | 1 | 1 |

2.2.1){E, D, F} (5)

|  |  |  |
| --- | --- | --- |
| R | b7 | c |
| C | 1 | 2 |
| G | 1 | 4 |

2.2.2){E, D, G} (8)- готовое решение.

1.1.1){A, E, F} (6)

|  |  |  |
| --- | --- | --- |
| R | b9 | c |
| D | 1 | 1 |
| G | 1 | 4 |

1.1.2){A, E, G} (9)- готовое решение.

1.2.1){A, F, B, D} (6) - готовое решение.

1.2.2){A, F, C, D} (6) - готовое решение.

2.2.1){E, D, F} (5)

|  |  |  |
| --- | --- | --- |
| R | b7 | c |
| C | 1 | 2 |

1.1.1){A, E, F} (6)

|  |  |  |
| --- | --- | --- |
| R | b9 | c |
| D | 1 | 1 |

2.2.1){E, D, F, C} (7)- готовое решение.

1.1.1){A, E, F, D} (7)- готовое решение.

Решения:

1.1.1){A, E, F, D} (7)

1.1.2){A, E, G} (9)

1.2.1){A, F, B, D} (6)

1.2.2){A, F, C, D} (6)

2.2.1){E, D, F, C} (7)

2.2.2){E, D, G} (8)

Исходя из полученных решений ответом будет {A, F, B, D} или {A, F, C, D}.