РГЗ 1, задание 8, вариант 6;

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Поиск кратчайшего покрытия:

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|  |  |  |  |  |  |  |  |  |  |  |
|  |  | 1 |  |  |  |  |  | 1 |  |  |
|  |  |  | 1 |  |  | 1 |  |  |  |  |
|  | 1 | 1 |  |  | 1 |  |  |  |  |  |
|  |  |  |  | 1 |  |  |  | 1 | 1 |  |
|  | 1 |  |  | 1 |  |  |  | 1 |  | 1 |
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|  |  | 1 |  |  | 1 |  | 1 |  |  | 1 |
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|  |  |  |  |  |  |  | 1 |  |  |
|  |  | 1 |  |  | 1 |  |  |  |  |
|  | 1 |  |  | 1 |  |  |  |  |  |
|  |  |  | 1 |  |  |  | 1 | 1 |  |
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|  | 1 |  | 1 |  |  |  |  |  |
|  |  |  |  |  |  | 1 | 1 |  |
|  | 1 |  |  |  |  | 1 |  | 1 |
|  |  |  |  | 1 |  |  |  |  |
|  |  |  | 1 |  | 1 |  |  | 1 |
|  |  | 1 |  |  | 1 |  | 1 |  |

{B}

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  |  |  |  |  |  |  |
|  | 1 | 1 |  |  |  |  |
|  |  |  |  | 1 | 1 |  |
|  | 1 |  |  | 1 |  | 1 |
|  |  | 1 | 1 |  |  | 1 |
|  |  |  | 1 |  | 1 |  |

ОБ = 2 + 1 = 3;

Разложение по столбцу b1:

{B}

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  |  |  |  |  |  |  |
|  | 1 | 1 |  |  |  |  |
|  |  |  |  | 1 | 1 |  |
|  | 1 |  |  | 1 |  | 1 |
|  |  | 1 | 1 |  |  | 1 |
|  |  |  | 1 |  | 1 |  |

{B}

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  |  |  |  |  |  |  |
|  | 1 | 1 |  |  |  |  |
|  |  |  |  | 1 | 1 |  |
|  | 1 |  |  | 1 |  | 1 |
|  |  | 1 | 1 |  |  | 1 |
|  |  |  | 1 |  | 1 |  |

{B, C}

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  |  |  |  |  |
|  |  | 1 | 1 |  |
|  |  | 1 |  | 1 |
|  | 1 |  |  | 1 |
|  | 1 |  | 1 |  |

ОБ = 2 + 2 = 4;

Разложение по столбцу b7:

{B, C} {B, C}

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  |  |  |  |  |
|  |  | 1 | 1 |  |
|  |  | 1 |  | 1 |
|  | 1 |  |  | 1 |
|  | 1 |  | 1 |  |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  |  |  |  |  |
|  |  | 1 | 1 |  |
|  |  | 1 |  | 1 |
|  | 1 |  |  | 1 |
|  | 1 |  | 1 |  |

{B, C, G}

|  |  |  |
| --- | --- | --- |
|  |  |  |
|  | 1 |  |
|  | 1 | 1 |
|  |  | 1 |

{B, C, G}

ОБ = 1 + 3 = 4;

Решение {B, C, G, E}

Кратчайшее решение;

|  |  |  |
| --- | --- | --- |
|  |  |  |
|  | 1 | 1 |
|  | 1 |  |
|  |  | 1 |

ОБ =1 + 3 = 4;

Решение {B, C, G, D}

Кратчайшее решение;

{B, E}

|  |  |  |  |
| --- | --- | --- | --- |
|  |  |  |  |
|  | 1 |  |  |
|  |  |  | 1 |
|  | 1 | 1 |  |
|  |  | 1 | 1 |

{B, E}

|  |  |  |
| --- | --- | --- |
|  |  |  |
|  | 1 |  |
|  |  | 1 |

ОБ =2 + 2 = 4;

Решение {B, E, G, H}

Кратчайшее решение;

Найти минимальное покрытие:

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  |  |  |  |  |  |  |  |  |  |  |
|  | 1 |  |  | 1 | 1 |  |  |  |  | 2 |
|  | 1 |  |  | 1 |  | 1 | 1 |  | 1 | 3 |
|  |  |  |  |  | 1 |  | 1 |  | 1 | 1 |
|  |  | 1 |  |  |  | 1 | 1 |  |  | 2 |
|  |  | 1 | 1 |  | 1 |  |  | 1 |  | 3 |
|  | 1 |  | 1 | 1 | 1 |  |  |  |  | 2 |
|  | 1 |  |  |  |  | 1 |  | 1 |  | 2 |
|  |  |  | 1 | 1 |  |  |  |  | 1 | 1 |

ОБМ = 1 + 1;

Разложим по столбцу b2:

{E}

{D}

ОБМ = 1 + 3 = 4;

Разложим по столбцу b1

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
|  |  |  |  |  |  |  |  |
|  | 1 |  | 1 |  |  | 1 | 3 |
|  |  |  |  | 1 |  | 1 | 1 |
|  |  | 1 |  | 1 | 1 |  | 3 |
|  | 1 | 1 | 1 | 1 |  |  | 2 |
|  | 1 |  |  |  | 1 |  | 2 |
|  |  | 1 | 1 |  |  | 1 | 1 |

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  |  |  |  |  |  |  |
|  | 1 | 1 | 1 | 1 | 1 | 3 |
|  |  |  |  | 1 | 1 | 1 |
|  |  |  | 1 | 1 |  | 2 |
|  | 1 | 1 |  |  |  | 2 |
|  | 1 |  | 1 |  |  | 2 |
|  |  | 1 |  |  | 1 | 1 |

ОБМ = 1 + 1 + 2 = 4;

Разложим по столбцу b8:

{E, F}

|  |  |  |  |
| --- | --- | --- | --- |
|  |  |  |  |
|  | 1 | 1 | 3 |
|  |  | 1 | 1 |
|  | 1 |  | 2 |

{E, B}

S = 3 + 3 = 6;

Минимальное

ОБМ = 1 + 2 + 3 = 6;

{D, E}

{E, G}

{E, F, D, C}

S = 3 + 2 + 2 + 1 = 8

{E, F, B}

S = 3 + 2 + 3 = 8

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  |  |  |  |  |
|  | 1 | 1 | 1 | 3 |
|  |  |  | 1 | 1 |
|  | 1 | 1 |  | 2 |
|  | 1 |  |  | 2 |
|  |  | 1 | 1 | 1 |

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| {D, G} |  |  |  |  |  |
|  |  | 1 |  | 1 | 3 |
|  |  |  | 1 | 1 | 1 |
|  | 1 |  | 1 |  | 3 |
|  | 1 | 1 | 1 |  | 2 |
|  | 1 | 1 |  | 1 | 1 |

|  |  |  |  |
| --- | --- | --- | --- |
|  |  |  |  |
|  | 1 | 1 | 3 |
|  |  | 1 | 1 |
|  | 1 |  | 1 |

{D, G}

{D, E}

ОБМ = 1 + 2 + 3 = 6;

|  |  |  |  |
| --- | --- | --- | --- |
|  |  |  |  |
|  | 1 | 1 | 3 |
|  | 1 |  | 2 |
|  |  | 1 | 1 |

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  |  |  |  |  |  |
|  |  | 1 |  | 1 | 3 |
|  |  |  | 1 | 1 | 1 |
|  | 1 |  | 1 |  | 3 |
|  | 1 | 1 | 1 |  | 2 |
|  | 1 | 1 |  | 1 | 1 |

ОБМ = 1 + 2 + 3 = 6;

{E, G, H, C}

S = 3 + 2 + 1 + 1 = 7;

{E, G, B}

S = 2 + 3 + 3 = 8

{D, G}

{D, E, F, H}

S = 2 + 3 + 2 + 1 = 8

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  |  |  |  |  |
|  |  | 1 | 1 | 1 |
|  | 1 | 1 |  | 2 |
|  | 1 |  | 1 | 1 |

{D, E, B}

S = 2 + 3 + 3 = 8

ОБМ = 1 + 2 + 2 = 5;

{D, G, H, C}

S = 2 + 2 + 1 + 1 = 6;

Минимальное

{D, G, F, H}

S = 2 + 2 + 2 +1 = 7;

{D, G, F, C}

S = 2 + 2 + 2 + 1 = 7