

## میانترم دوم فولاد (فصل فشار)

[illegible]

| مقیاس شده | به نفر اول | sum | محدوده جواب | (حاکم) fiPn | (ک.پ) fiPn | Fcr پ | فرمول فy/fe    | 3    | فرمولش Fe, | kz | G        | Cw,h0    | ly1=1461 | J     | (ک.خ) fiPn | fi  | خ Fcr | فرمول          |
|-----------|------------|-----|-------------|-------------|------------|-------|----------------|------|------------|----|----------|----------|----------|-------|------------|-----|-------|----------------|
|           |            |     | 210-260     | خمشی        | 297.1937   | 1659  | نمایی<br>حاکمه | 0.78 | 2944.4     | 1  | 8.08E+05 | 1.77E+06 | ly2=2665 | 349/3 | 235.8      | 0.9 | 1185  | نمایی<br>حاکمه |
| 28        | 20         | 0   | 0           | 0           | 0          | 0     | 0              | 0    | 1          | 0  | 1        | 2        | 0        | 0     | 0          | 0   | 0     | 0              |
| 49        | 35         | 0   | 2           | 2           | 0          | 0     | 2              | 2    | 1          | 2  | 2        | 1        | 0        | 4     | 0          | 0   | 2     | 2              |
| 33        | 24         | 0   | 0           | 0           | 0          | 0     | 2              | 0    | 1          | 0  | 2        | 0        | 0        | 5     | 0          | 2   | 0     | 0              |
| 49        | 35         | 0   | 0           | 0           | 0          | 0     | 0              | 0    | 1          | 0  | 2        | 2        | 0        | 0     | 0          | 0   | 0     | 2              |
| 31        | 22         | 0   | 0           | 0           | 0          | 0     | 0              | 0    | 1          | 0  | 0        | 2        | 0        | 0     | 0          | 2   | 0     | 2              |
| 33        | 24         | 0   | 0           | 0           | 0          | 0     | 0              | 0    | 1          | 2  | 2        | 2        | 0        | 5     | 0          | 2   | 0     | 2              |
| 7         | 5          | 0   | 0           | 0           | 0          | 0     | 0              | 0    | 1          | 0  | 0        | 0        | 0        | 0     | 0          | 0   | 0     | 0              |
| 39        | 28         | 0   | 0           | 0           | 0          | 0     | 2              | 0    | 1          | 2  | 0        | 1        | 0        | 0     | 0          | 2   | 0     | 2              |
| 56        | 40         | 5   | 2           | 0           | 0          | 0     | 2              | 0    | 1          | 2  | 2        | 2        | 0        | 0     | 0          | 2   | 0     | 2              |
|           |            |     |             |             |            |       |                |      |            |    |          |          |          |       |            |     |       |                |
| 28        | 20         | 0   | 0           | 0           | 0          | 0     | 0              | 0    | 1          | 0  | 2        | 0        | 0        | 5     | 0          | 0   | 0     | 0              |
| 100       | 72         | 5   | 2           | 2           | 2          | 2     | 2              | 3    | 3          | 2  | 2        | 4        | 6        | 5     | 0          | 2   | 0     | 2              |
| 53        | 38         | 0   | 0           | 0           | 0          | 0     | 0              | 0    | 1          | 0  | 2        | 4        | 6        | 2     | 0          | 2   | 0     | 2              |
| 15        | 11         | 0   | 0           | 0           | 0          | 0     | 0              | 0    | 0          | 0  | 0        | 0        | 0        | 0     | 0          | 2   | 0     | 0              |
| 24        | 17         | 0   | 0           | 0           | 0          | 0     | 0              | 0    | 1          | 0  | 2        | 0        | 0        | 2     | 0          | 2   | 0     | 0              |
| 19        | 14         | 0   | 0           | 0           | 0          | 0     | 0              | 0    | 1          | 0  | 0        | 0        | 0        | 0     | 0          | 2   | 0     | 0              |
| 78        | 56         | 5   | 2           | 0           | 0          | 0     | 0              | 0    | 1          | 2  | 2        | 2        | 0        | 5     | 2          | 2   | 2     | 2              |
| 71        | 51         | 0   | 0           | 0           | 0          | 0     | 0              | 0    | 1          | 2  | 2        | 2        | 0        | 5     | 0          | 2   | 0     | 2              |
| 6         | 4          | 0   | 0           | 0           | 0          | 0     | 0              | 0    |            | 0  | 2        | 0        | 0        | 0     | 0          | 0   | 0     | 0              |
| 76        | 55         | 0   | 2           | 2           | 2          | 2     | 2              | 1    | 1          | 2  | 2        | 2        | 0        | 4     | 0          | 2   | 0     | 0              |
| 49        | 35         | 0   | 0           | 0           | 0          | 0     | 0              | 0    | 0          | 0  | 0        | 0        | 0        | 0     | 0          | 0   | 0     | 2              |
| 90        | 65         | 0   |             | 0           | 0          | 0     | 2              | 1    | 1          | 2  | 2        | 2        | 3        | 5     | 0          | 2   | 0     | 2              |
| 7         | 5          | 0   | 0           | 0           | 0          | 0     | 0              | 0    | 0          | 0  | 0        | 2        | 0        | 0     | 0          | 0   | 0     | 0              |

میانترم اول فولاد (فصل کشش)

|             | الف |             |            |     |        |            |             |      |           |               |       |      |               |
|-------------|-----|-------------|------------|-----|--------|------------|-------------|------|-----------|---------------|-------|------|---------------|
|             | 2   | 3           | 3          | 3   | 3      | 6          | 3           | 3    | 2         | 3             | 3     | 3    | 3             |
|             | Ag  | ظرفیت تسلیم | محاسباتی d | An1 | An2    | x,L        | فرمول U,    | Umin | fi        | ظرفیت گسیختگی | ly=lx | lmax | محاسبه ا دیگر |
|             | 86  | 181.89      | 3          | 77  | 71.375 | 4.25, 22.5 | 0.811111111 | 0.6  | 0.9, 0.75 | 156.31125     | ۳۹۴۶  | ۵۰۴۰ |               |
| 40113200203 | 2   | 3           | 3          | 2   | 1      | 6          | 3           | 2    | 2         | 0             | 2     | 0    | 3             |
| 40213200002 | 2   | 3           | 3          | 3   | 3      | 3          | 1           | 0    | 2         | 2             | 3     | 3    | 3             |
| 9813200008  |     |             |            |     |        |            |             |      |           |               |       |      |               |
| 40113200006 | 2   | 3           | 0          | 3   | 3      | 6          | 3           | 0    | 2         | 2             | 0     | 0    | 0             |
| 40213200005 | 2   | 3           | 3          | 0   | 0      | 6          | 3           | 0    | 2         | 2             | 0     | 0    | 0             |
| 40013200008 | 2   | 3           | 1          | 2   | 1      | 0          | 0           | 0    | 2         | 0             | 0     | 0    | 0             |
| 40113200204 | 2   | 3           | 1          | 3   | 3      | 0          | 0           | 0    | 2         | 2             | 0     | 0    | 3             |
| 40213200006 | 2   | 3           | 0          | 0   | 0      | 3          | 2           | 3    | 2         | 0             | 0     | 0    | 0             |
| 9913201037  | 2   | 2           | 0          | 0   | 0      | 6          | 3           | 0    | 2         | 0             | 0     | 0    | 3             |
| 9913200012  |     |             |            |     |        |            |             |      |           |               |       |      |               |
| 40013200021 | 2   | 3           | 1          | 3   | 3      | 3          | 1           | 3    | 1         | 0             | 0     | 0    | 3             |
| 40213200009 | 2   | 3           | 3          | 3   | 3      | 6          | 3           | 3    | 2         | 3             | 3     | 3    | 0             |
| 40113200014 | 2   | 3           | 3          | 0   | 0      | 3          | 1           | 0    | 1         | 0             | 0     | 0    | 3             |
| 40113201216 | 2   | 0           | 0          | 0   | 0      | 3          | 1           | 0    | 2         | 0             | 0     | 0    | 0             |
| 40013201214 | 2   | 3           | 3          | 3   | 3      | 3          | 1           | 3    | 2         | 2             | 0     | 0    | 0             |
| 40213200010 | 2   | 3           | 1          | 3   | 1      | 0          | 0           | 0    | 2         | 2             | 0     | 0    | 0             |
| 40113200018 | 2   | 3           | 1          | 3   | 3      | 3          | 3           | 3    | 2         | 2             | 0     | 0    | 0             |
| 40213200013 | 2   | 3           | 3          | 3   | 3      | 3          | 3           | 0    | 2         | 2             | 3     | 0    | 0             |
| 9913200210  | 2   | 2           | 3          | 3   | 2      | 6          | 2           | 0    | 2         | 0             | 0     | 0    | 0             |
| 40213200014 | 2   | 2           | 3          | 3   | 3      | 6          | 3           | 3    | 1         | 2             | 3     | 3    | 3             |
| 40113201024 | 2   | 3           | 3          | 3   | 3      | 0          | 0           | 1    | 2         | 2             | 3     | 0    | 0             |
| 40213200018 | 2   | 3           | 3          | 3   | 3      | 6          | 3           | 0    | 2         | 2             | 3     | 3    | 3             |
|             | 1   | 0           | 1          | 0   | 0      | 3          | 1           | 0    | 2         | 0             | 0     | 0    | 0             |

| ب    |       |              |              | پ           |              |        |     |            |
|------|-------|--------------|--------------|-------------|--------------|--------|-----|------------|
| 3    | 3     | 6            | 6            | 9           | 3            | 30     | 100 | مقیاس شده  |
| Imin | r min | Lmax + فرمول | Xmax + فرمول | 1.5*22 +3mm | حداقل از لبه | تشریحی | sum | به نفر اول |
| ۲۸۶۰ | 5.76  | 1728         | 1698         | 36          | ok           |        |     |            |
| 0    | 0     | 3            | 0            | 3           | 0            | 10     | 45  | 55         |
| 3    | 3     | 6            | 6            | 2           | 0            | 4      | 55  | 67         |
|      |       |              |              |             |              |        |     |            |
| 0    | 0     | 3            | 0            | 6           | 3            | 10     | 46  | 56         |
| 0    | 0     | 3            | 0            | 0           | 3            | 12     | 39  | 48         |
| 0    | 0     | 0            | 0            | 0           | 3            | 5      | 19  | 23         |
| 3    | 3     | 3            | 3            | 6           | 3            | 8      | 48  | 59         |
| 3    | 0     | 3            | 0            | 3           | 3            | 4      | 31  | 38         |
| 0    | 0     | 3            | 3            | 3           | 3            | 13     | 43  | 52         |
|      |       |              |              |             |              |        |     |            |
| 0    | 0     | 3            | 0            | 0           | 3            | 2      | 31  | 38         |
| 0    | 0     | 3            | 3            | 6           | 3            | 30     | 82  | 100        |
| 0    | 0     | 3            | 3            | 9           | 3            | 18     | 52  | 63         |
| 0    | 0     | 3            | 0            | 0           | 0            | 10     | 21  | 26         |
| 0    | 0     | 3            | 0            | 3           | 3            | 10     | 44  | 54         |
| 0    | 0     | 3            | 0            | 0           | 3            | 20     | 40  | 49         |
| 0    | 0     | 3            | 3            | 6           | 3            | 1      | 40  | 49         |
| 0    | 0     | 3            | 0            | 3           | 3            | 15     | 51  | 62         |
| 0    | 0     | 3            | 0            | 6           | 0            | 15     | 46  | 56         |
| 3    | 0     | 3            | 2            | 6           | 0            | 15     | 66  | 80         |
| 0    | 0     | 3            | 0            | 0           |              | 10     | 35  | 43         |
| 0    | 0     | 3            | 0            | 9           | 3            | 10     | 61  | 74         |
| 0    | 0     | 3            | 0            | 6           | 3            | 10     | 30  | 37         |