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Structural Fasteners' Details

Design of Steel Structures



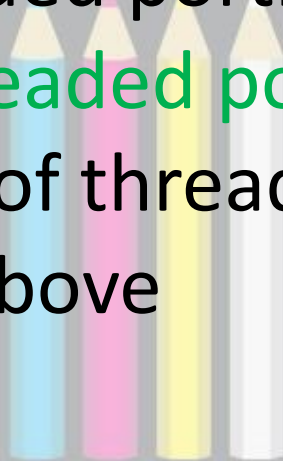
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Gross sectional area of a joint is

- a. Area of threaded portion of bolt
- b. Area of unthreaded portion of bolt
- c. Area of roots of threads
- d. None of the above



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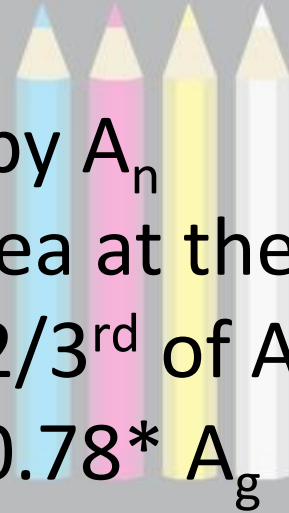
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Regarding 'net effective c/s area', select the correct statement/s



1. It is denoted by A_n
2. It is the c/s area at the root of threads
3. It is taken as $2/3^{\text{rd}}$ of A_g
4. It is taken as $0.78^* A_g$

a. 1 & 3 b. 1,3 & 4 c. 1,2 & 4 d. 2,3 & 4

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The distance between centres of any 2 adjacent holes in the direction of stress is called as



- a. Lap
- b. Span
- c. Pitch
- d. Any of the above

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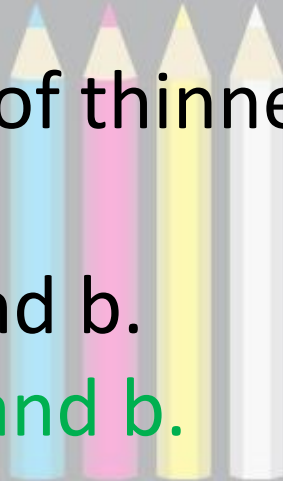
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In case of tension members, pitch should not exceed

- a. $16 \times$ thickness of thinner plate
- b. 200 mm
- c. Larger of a. and b.
- d. Smaller of a. and b.



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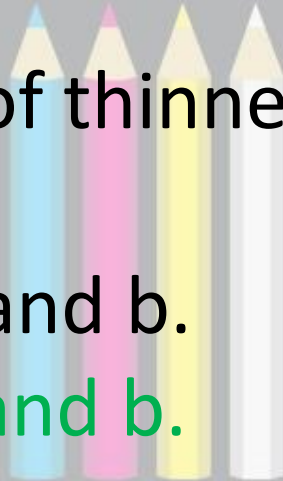
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In case of compression members, pitch should not exceed

- a. 12-thickness of thinner plate
- b. 200 mm
- c. Greater of a. and b.
- d. **Smaller of a. and b.**



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Minimum pitch that should be provided is

- a. $3.5d$
- b. $2.5t$
- c. $2.5d$
- d. $4.5d$



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Select the correct statement about nominal diameter of structural fasteners

1. For rivets, nominal diameter is diameter after riveting
2. For rivets, nominal diameter is diameter before riveting
3. For bolts, nominal diameter is diameter unthreaded portion of shank

a. 1 & 3, b. 1 & 2, c. 2 & 3, d. 1,2 & 3

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Regarding gross diameter of structural fasteners, which one of the following statement is right?



- a. For bolts, nominal and gross diameter are same
- b. For rivets it's diameter after riveting
- c. Both a. and b.
- d. None of the above

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