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## A.F.P.A. FALL 2017 & SPRING 2018 GRADE EXAM

Name: \_\_\_\_\_ Date: \_\_\_\_\_

Company: \_\_\_\_\_ Location: \_\_\_\_\_

Mark the answer you choose with an **[X]**. ONLY ONE ANSWER PER QUESTION PLEASE!

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1. The healing agent in the tree is called?

☐ Pitch                      ☐ Inner Bark                      ☐ Pith                      ☐ Pits

2. Another name for a needle leaved tree is:

☐ Broad Leaf                      ☐ Hardwood                      ☐ Conifer                      ☐ Deciduous

3. Inner bark is also called?

☐ Sapwood                      ☐ Bast                      ☐ Pits                      ☐ Heartwood

4. Which SLOPE OF GRAIN has the MOST NEGATIVE effect, on the STRENGTH of DIMENSION lumber?

☐ 1 in 4                      ☐ 1 in 6                      ☐ 1 in 8                      ☐ 1 in 12

5. Water and mineral solution absorbed from the soil is called?

☐ Pitch                      ☐ Syrup                      ☐ Tree Food                      ☐ Sap

6. The abbreviation HT means?

☐ Heavy Torn      ☐ Heat Treated      ☐ Heat Transfer      ☐ Heat Thickness

7. Twist in lumber indicates the presence of:

☐ Crook      ☐ Cup      ☐ Bow      ☐ Slope of Grain

8. Which grade of 2x4 has the LOWEST bending strength rating?

☐ #3      ☐ Stud      ☐ Standard      ☐ Construction

9. A CHECK that extends from one wide face to the opposite or adjoining surface is called :

☐ Surface Check      ☐ Roller Check      ☐ Through Check      ☐ Split

Mark the following **DEFECTS** under the correct **CLASSIFICATION**:

	Defect	Natural	Manufacturing	Seasoning
10.	Rot/Decay	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
11.	Checks	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
12.	Shake	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
13.	Saw Cut	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Match the following **MANUFACTURING DEFECTS** to the correct **DEPTH CLASSIFICATION**:

	DEFECT	1/64"	1/32"	1/16"	1/8"	Over 1/8"
14.	<b>Light</b> Raised Grain	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
15.	<b>Very Heavy</b> Skip	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
16.	<b>Light</b> Machine Gouge	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
17.	<b>Medium</b> Machine Bite	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Mark the correct dressed **THICKNESS** for the following:

18.	<b>2</b> x 4 S-GRN HT	<input type="checkbox"/> 1 1/2"	<input type="checkbox"/> 1 3/4"	<input type="checkbox"/> 1 9/16"	<input type="checkbox"/> 1 5/8"
19.	<b>1</b> x 4 S-GRN HT	<input type="checkbox"/> 1/2"	<input type="checkbox"/> 5/8"	<input type="checkbox"/> 3/4"	<input type="checkbox"/> 25/32"
20.	<b>3</b> x 4 KD-HT	<input type="checkbox"/> 2 9/16"	<input type="checkbox"/> 2 1/2"	<input type="checkbox"/> 2 5/8 "	<input type="checkbox"/> 2 1/4"
21.	<b>4</b> x 10 KD-HT	<input type="checkbox"/> 3 1/4"	<input type="checkbox"/> 3 3/4"	<input type="checkbox"/> 3 1/2"	<input type="checkbox"/> 4"

Mark the correct dressed <b>WIDTH</b> for the following:					
22.	2 x <b>12</b> S-DRY	<input type="checkbox"/> 11 ¼"	<input type="checkbox"/> 11 9/16"	<input type="checkbox"/> 11 5/8"	<input type="checkbox"/> 11 1/2"
23.	3 x <b>8</b> S-GRN	<input type="checkbox"/> 7 1/4"	<input type="checkbox"/> 7 1/2"	<input type="checkbox"/> 7 9/16"	<input type="checkbox"/> 7 5/8"
24.	2 x <b>6</b> S-GRN	<input type="checkbox"/> 5 1/2"	<input type="checkbox"/> 5 9/16"	<input type="checkbox"/> 5 5/8"	<input type="checkbox"/> 6"
25.	4 x <b>4</b> KD-HT	<input type="checkbox"/> 3 1/2"	<input type="checkbox"/> 3 3/4"	<input type="checkbox"/> 1 7/16"	<input type="checkbox"/> 4"

Mark the <b>Highest</b> grade of <b>Par.121 Stud</b> that allows the following for a <b>2 x 4 - 104 5/8"</b> long:			
	DEFECT	STUD	ECONOMY
26.	White Speck <b>100%</b>	<input type="checkbox"/>	<input type="checkbox"/>
27.	Wane <b>3/4</b> width full length	<input type="checkbox"/>	<input type="checkbox"/>
28.	Heavy Warp	<input type="checkbox"/>	<input type="checkbox"/>
29.	<b>1 in 4</b> Slope of Grain	<input type="checkbox"/>	<input type="checkbox"/>
30.	Edge Knot <b>45%</b> displacement	<input type="checkbox"/>	<input type="checkbox"/>
31.	Through Shake ½ the length	<input type="checkbox"/>	<input type="checkbox"/>

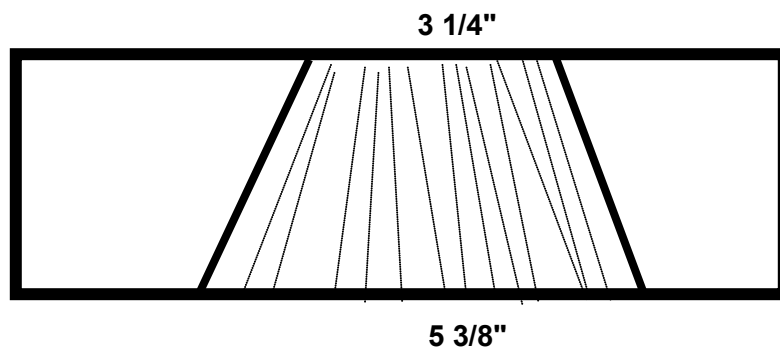
Mark the <b>HIGHEST</b> grade of <b>Par. 122 Light Framing</b> that allows the following for a <b>2 x 4 - 10</b> feet long:					
	DEFECT	CONSTRUCTION	STANDARD	UTILITY	ECONOMY
32.	White Speck <b>100%</b>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
33.	Through Shake <b>2'</b> long	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
34.	Full length wane, <b>1/2</b> width	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
35.	<b>1 in 6</b> Slope of Grain	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
36.	<b>Knot 1½"</b> on the edge of face	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
37.	Split <b>1½ X Width</b>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
38.	Hit <b>or</b> Miss Skip	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
39.	Hit <b>&amp;</b> Miss Skip	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
40.	Heavy Skip <b>2</b> feet long	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Mark the **HIGHEST** grade of **Par. 124 Structural Light Framing and Joist & Planks** that allows the following in a **2 x 10-12** feet long:

	DEFECT	SEL STR	#1	#2	#3	NONE
41.	Wane <b>1/2 T x 1/2 W</b> full length	[ ]	[ ]	[ ]	[ ]	[ ]
42.	Spike Knot 50% displacement	[ ]	[ ]	[ ]	[ ]	[ ]
43.	Wane <b>1/2 T</b> on the end	[ ]	[ ]	[ ]	[ ]	[ ]
44.	Slope of Grain <b>1 in 8</b>	[ ]	[ ]	[ ]	[ ]	[ ]
45.	Hit & Miss Skip	[ ]	[ ]	[ ]	[ ]	[ ]
46.	Light Warp	[ ]	[ ]	[ ]	[ ]	[ ]
47.	Hit or Miss Skip	[ ]	[ ]	[ ]	[ ]	[ ]
48.	Through Shake <b>1/3</b> the length	[ ]	[ ]	[ ]	[ ]	[ ]
49.	Wane <b>1/4 T x 1/4 W</b> full length	[ ]	[ ]	[ ]	[ ]	[ ]
50.	Wane <b>2/3T x 1/2W Maximum Equiv.</b>	[ ]	[ ]	[ ]	[ ]	[ ]
51.	Decay <b>1/3</b> cross section	[ ]	[ ]	[ ]	[ ]	[ ]
52.	Edge Knot <b>50%</b> displacement	[ ]	[ ]	[ ]	[ ]	[ ]
53.	Split <b>15"</b> long	[ ]	[ ]	[ ]	[ ]	[ ]
54.	20% Heart Stain	[ ]	[ ]	[ ]	[ ]	[ ]
55.	White Speck <b>100%</b> of the volume	[ ]	[ ]	[ ]	[ ]	[ ]
56.	Firm Honeycomb <b>1/3 the width</b>	[ ]	[ ]	[ ]	[ ]	[ ]

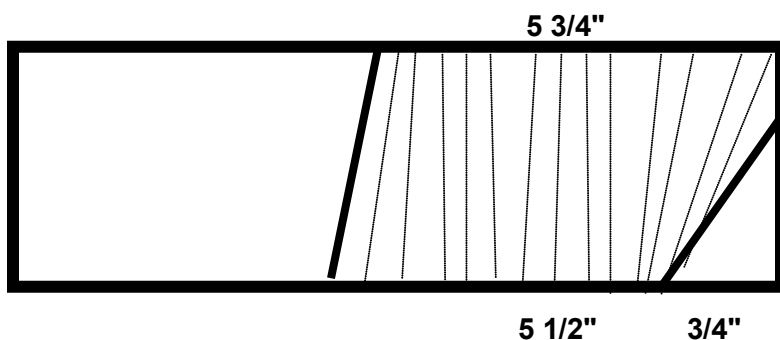
List the knot sizes for the following **KD-HT 2 x 8's**

57. List the knot size:



SIZE

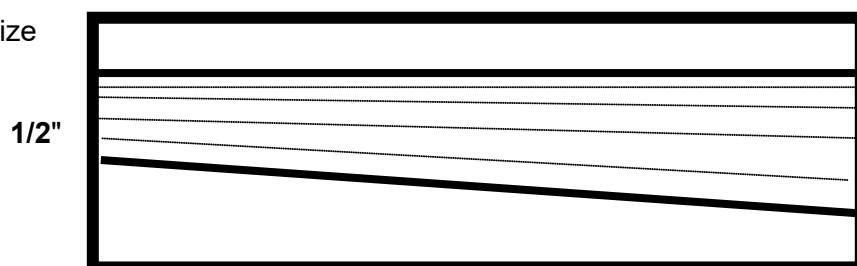
58. List the knot size:



1/2"

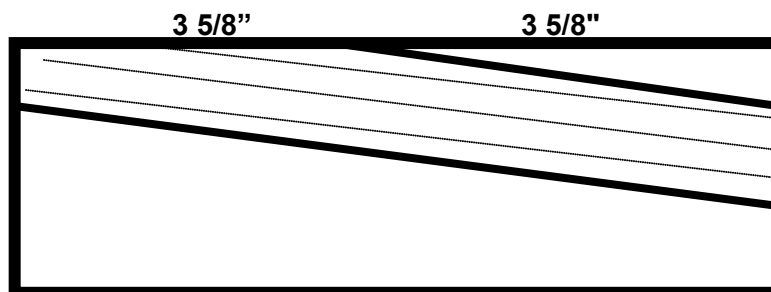
SIZE

59. List the knot size



SIZE

60. List the knot size  
1/2"



1/4"

5/8" SIZE