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## A.F.P.A. FALL 2013 & SPRING 2014 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 newest growth in height is called:

☐ Trunk                      ☐ Leader                      ☐ Cambium                      ☐ Bast

2. The inner bark is also called:

☐ Sapwood                      ☐ Seat of Tree Growth                      ☐ Bast                      ☐ Cambium

3. The healing agent in the tree is called:

☐ Bark                      ☐ Cambium                      ☐ Pith                      ☐ Pitch

4. Water contained in the cell walls is called:

☐ Free Water                      ☐ Bound Water                      ☐ Hard Water                      ☐ Soft Water

5. Which specie is being attacked by the "Mountain Pine Beetle"?

☐ Douglas Fir                      ☐ Balsam Fir                      ☐ Lodgepole Pine                      ☐ Tamarack

6. Which of the following species is in the **S-P-F** species group:

☐ Tamarack                      ☐ Douglas Fir                      ☐ Jack Pine                      ☐ Sitka Spruce

7. Lumber grade stamped **KD-HT** or **S-DRY** must not exceed what Moisture Content?

☐ 10%                      ☐ 15%                      ☐ 19%                      ☐ 26%

8. Fibre saturation point occurs at approximately:

☐ 10%                      ☐ 15%                      ☐ 19%                      ☐ 26%

9. A piece of lumber that dries from 85% MC to 45% MC will become:

☐ Stronger                      ☐ Lighter                      ☐ Brighter                      ☐ Durable

10-13. Match the characteristics with the description. (e.g. a )

- |             |                             |       |
|-------------|-----------------------------|-------|
| a) 14" long | 10. 1/4 the length of a 7'  | _____ |
| b) 60" long | 11. 1/3 the length of a 8'  | _____ |
| c) 32" long | 12. 1/6 the length of a 12' | _____ |
| d) 22" long | 13. 1/2 the length of a 10' | _____ |
| e) 21" long |                             |       |
| f) 24" long |                             |       |

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> Machine Gouge	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
54.	<b>Medium</b> Torn Grain	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
16.	<b>Very Heavy</b> Offset	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
17.	<b>Heavy</b> Skip	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

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

18.	2 x <b>10</b> S-GRN	<input type="checkbox"/> 9 1/4"	<input type="checkbox"/> 9 3/4"	<input type="checkbox"/> 9 1/2"	<input type="checkbox"/> 10"
19.	2 x <b>6</b> S-GRN HT	<input type="checkbox"/> 5 1/2"	<input type="checkbox"/> 5 5/8"	<input type="checkbox"/> 6"	<input type="checkbox"/> 5 9/16"
20.	2 x <b>4</b> KD-HT	<input type="checkbox"/> 3 9/16"	<input type="checkbox"/> 3 1/2"	<input type="checkbox"/> 3 5/8"	<input type="checkbox"/> 3 1/4"
21.	2 x <b>3</b> S-DRY	<input type="checkbox"/> 2 1/4"	<input type="checkbox"/> 2 3/4"	<input type="checkbox"/> 2 1/2"	<input type="checkbox"/> 3"

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

22.	<b>2</b> x 10 S-DRY	<input type="checkbox"/> 1 3/4"	<input type="checkbox"/> 1 9/16"	<input type="checkbox"/> 1 5/8"	<input type="checkbox"/> 1 1/2"
23.	<b>4</b> x 10 KD-HT	<input type="checkbox"/> 3 7/16"	<input type="checkbox"/> 3 1/2"	<input type="checkbox"/> 3 9/16"	<input type="checkbox"/> 3 5/8"
24.	<b>3</b> x 10 S-GRN	<input type="checkbox"/> 2 1/2"	<input type="checkbox"/> 2 9/16"	<input type="checkbox"/> 3"	<input type="checkbox"/> 2 1/4"
25.	<b>1</b> x 10 KD-HT	<input type="checkbox"/> 3/4"	<input type="checkbox"/> 25/32"	<input type="checkbox"/> 15/16"	<input type="checkbox"/> 1"

Mark the **Highest** grade of **Par.121 Stud** that allows the following for a **2 x 4 - 92 5/8"** long:

	DEFECT	STUD	ECONOMY
26.	<b>Skip 1/8"</b> for 2' long on the edge	<input type="checkbox"/>	<input type="checkbox"/>
27.	<b>100% firm</b> White Speck	<input type="checkbox"/>	<input type="checkbox"/>
28.	<b>Wane 1/3</b> thickness full length	<input type="checkbox"/>	<input type="checkbox"/>
29.	<b>Skip 1/16"</b> full length on one wide face	<input type="checkbox"/>	<input type="checkbox"/>
30.	Edge Knot <b>50%</b> displacement	<input type="checkbox"/>	<input type="checkbox"/>
31.	<b>Split</b> twice the width of the piece	<input type="checkbox"/>	<input type="checkbox"/>

Mark the **HIGHEST** grade of **Par. 122 Light Framing** that allows the following for a **2 x 4 - 16** feet long:

	DEFECT	CONSTRUCTION	STANDARD	UTILITY	ECONOMY
32.	Wane <b>1/2 T X 3/4 W</b> full length	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
33.	Surface Shake <b>2 feet</b> long	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
34.	<b>Wane 1/3</b> thickness full length	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
35.	Decay <b>1/2</b> the cross section	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
36.	White Speck <b>50%</b> of the volume	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

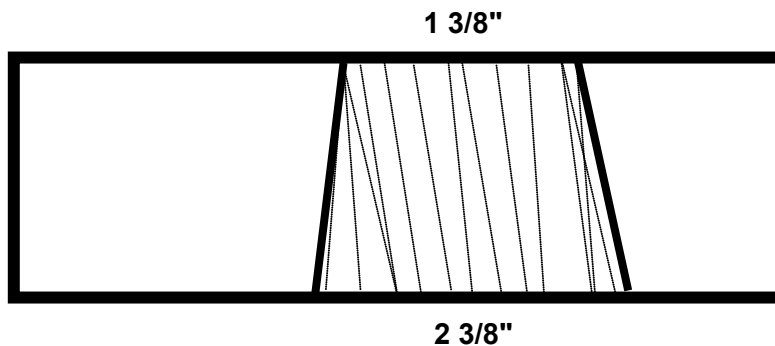
	DEFECT	CONSTRUCTION	STANDARD	UTILITY	ECONOMY
37.	<b>Split 9</b> inches long	[ ]	[ ]	[ ]	[ ]
38.	Wane <b>completely</b> through narrow face on the <b>end</b>	[ ]	[ ]	[ ]	[ ]
39.	<b>Medium</b> warp	[ ]	[ ]	[ ]	[ ]
40.	Firm White Speck	[ ]	[ ]	[ ]	[ ]

Mark the **HIGHEST** grade of **Par. 124 Structural Light Framing and Joist & Planks** that allows the following in a **2 x 4-16** feet long:

	DEFECT	SEL STR	#1	#2	#3	NONE
41.	White Speck <b>1/3</b> the volume	[ ]	[ ]	[ ]	[ ]	[ ]
42.	Wane on <b>END 3/4</b> width	[ ]	[ ]	[ ]	[ ]	[ ]
43.	Wane <b>2/3 thickness</b> on the <b>END</b>	[ ]	[ ]	[ ]	[ ]	[ ]
44.	Slope of Grain <b>1 in 12</b>	[ ]	[ ]	[ ]	[ ]	[ ]
45.	10% <b>Heart Stain</b>	[ ]	[ ]	[ ]	[ ]	[ ]
46.	Decay on the face <b>1/6W x 2"</b> long	[ ]	[ ]	[ ]	[ ]	[ ]
47.	Skip <b>1/8 inch</b> deep <b>3 feet</b> long	[ ]	[ ]	[ ]	[ ]	[ ]
48.	Three Face Shake <b>5 feet</b> long	[ ]	[ ]	[ ]	[ ]	[ ]
49.	Wane <b>1/4 T x 1/4 W</b> full length	[ ]	[ ]	[ ]	[ ]	[ ]
50.	<b>Light</b> Warp	[ ]	[ ]	[ ]	[ ]	[ ]
51.	<b>100%</b> heart stain	[ ]	[ ]	[ ]	[ ]	[ ]
52.	Through shake <b>2 feet</b> long	[ ]	[ ]	[ ]	[ ]	[ ]
53.	Split <b>1/6</b> the length	[ ]	[ ]	[ ]	[ ]	[ ]
54.	<b>Wane completely</b> across Wide Face <b>1 feet</b> long on the end	[ ]	[ ]	[ ]	[ ]	[ ]
55.	Surface Shake <b>5 feet</b> long	[ ]	[ ]	[ ]	[ ]	[ ]
56.	<b>1240</b> Grub Holes on one face	[ ]	[ ]	[ ]	[ ]	[ ]

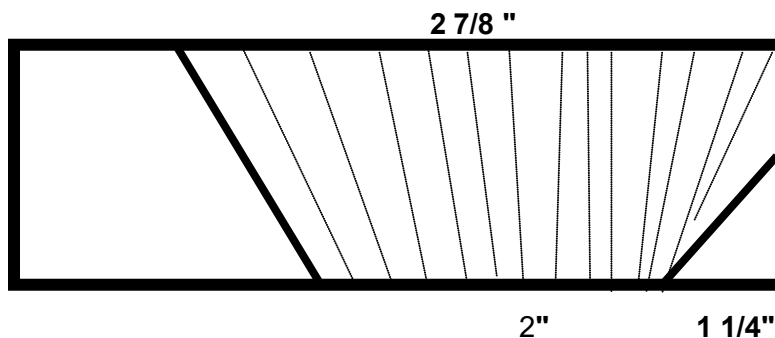
List the knot sizes for the following **KD-HT 2 x 4's**

57. List the knot size:



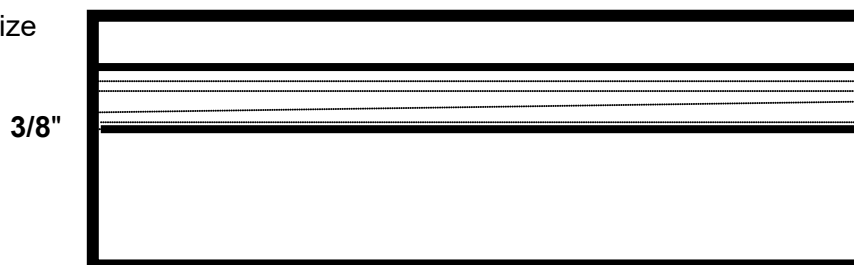
SIZE

58. List the knot size:



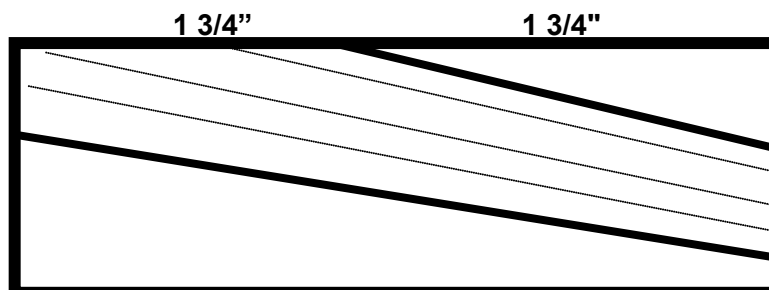
SIZE

59. List the knot size



SIZE

60. List the knot size  
1/2"



SIZE