**Basic Rigging Safety Lecture Test** 

	<b>PROCHESTER</b>	MELIORA Ever Better	Basic Rigging Safety Le (M_004)	cture Test
				LLE
Nan	ne (print):	I	Date: S	core:
Sigi	nature:			
	n question is worth 1 point unless otherwise n rn the completed quiz to <b>Karen Kiselycznył</b>	-		
1)	<ul> <li>If an activity seems unsafe</li> <li>a) Address the concern after the job is done</li> <li>b) The system must be safe since it is at LI</li> <li>c) I just haven't been trained yet</li> <li>d) Stop work and address the concern</li> </ul>			
2)	Only perform activities for which you are qual True		False	
3)	<ul><li>Qualification for the use of overhead cranes</li><li>a) 0 lbs</li><li>b) 120 lbs</li></ul>	c)	ional training starting at; 500 lbs 20000 lbs	
4)	Basic rigging training is required starting at a) 0 lbs	c)	500 lbs	
5)	b) 120 lbs		20000 lbs	
5)	Advanced rigging training is required startin a) 0 lbs	• • •	500 lbs	
	b) 120 lbs	,	20000 lbs	
6)	What is the correct order of execution of the	e items listed b	elow? (7pts)	
	<ul> <li>a) Attach payload to a load hook</li> <li>b) Attach the rigging gear</li> <li>c) Prep work</li> <li>d) Move the payload</li> </ul>	f)	Remove the rigging gear Secure the payload Detach the payload from	a hook
7)	It is acceptable to slightly exceed load rating a) True	-	safety factors are so high. False	
8)	Rated and non-rated rigging hardware are in a) True	-	for overhead hoisting. False	
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M\_004 Basic Rigging Safety Lecture Test S-SA-M-014 Rev D For use with M\_004 Basic Rigging Safety Lecture S-SA-M-006 Rev E

<ul><li>9) Rigging equipment needs to be visually inspected price</li><li>a) True</li></ul>	or to every use. b) False				
<ul><li>10) Slings without labels are acceptable to use.</li><li>a) True</li></ul>	b) False				
<ul><li>11) It is acceptable to tie slings together.</li><li>a) True</li></ul>	b) False				
<ul> <li>12) What type of sling damage is cause for removing a slinal and burn (heat)</li> <li>b) Chemical</li> <li>c) Snags, punctures, tears or cuts</li> <li>d) Broken or worn stitches</li> </ul>	<ul><li>ing from service?</li><li>e) Abrasion</li><li>f) Shock loading</li><li>g) All of the above</li></ul>				
<ul><li>13) Use of softeners is required on sharp corners.</li><li>a) True</li></ul>	b) False				
<ul><li>14) How many degrees of freedom do hoist rings have?</li><li>a) 1</li><li>c) 3</li></ul>	b) 2 d) 4				
<ul><li>15) What tool(s) is/are required to install a hoist ring?</li><li>a) Allen wrench</li><li>b) Torque wrench</li><li>c) All of above</li></ul>					
<ul><li>16) For a hoist ring, a thread engagement into steel equal</li><li>a) True</li></ul>	<ul><li>to the bolt diameter is acceptable.</li><li>b) False</li></ul>				
<ul><li>17) Same size alloy and stainless steel hoist rings are inte</li><li>a) True</li></ul>	rchangeable. b) False				
<ul><li>18) For a vertical pull, comparably rated machinery eye b</li><li>a) True</li></ul>	bolts and hoist rings are interchangeable. b) False				
<ul><li>19) For a non-vertical pull, comparably rated machinery e</li><li>a) True</li></ul>	eye bolts and hoist rings are interchangeable. b) False				
<ul><li>20) Thread engagement into steel equal to the bolt diamet</li><li>a) True</li></ul>	ter of an eye bolt is acceptable. b) False				
<ul><li>21) The load rating for shouldered eye bolts increases wit</li><li>a) True</li></ul>	h pull angle. b) False				
<ul><li>22) Loads should always be applied to eye bolts in the plane of the eye.</li><li>a) True</li><li>b) False</li></ul>					

23) Angular lifts with plain eye bolts should never exceed how many degrees						
a) 0°	c) 45°					
b) 30°	d) $60^{\circ}$					
0) 30	d) 00					
24) Angular lifts with shouldered eye bolts should never exceed how many degrees						
a) 0°	c) 45°					
b) 30°	d) 60°					
0, 00	<i>c)</i>					
25) Eye bolts are marked with a Working Load Limit.						
a) True	b) False					
a) Ilue	0) Palse					
26) Which shackles are not approved for use at LLE.						
a) Round Pin Shackles	c) Bolt-Type Shackles					
b) Screw Pin Shackles						
27) Shackles are marked with a Working Load Limit.						
a) True	b) False					
u) IIuc						
20) The load nating for a shealth is not reduced when sid	alaadad					
28) The load rating for a shackle is not reduced when sid						
a) True	b) False					
29) Shackle screw pins shall be fully engaged and hand t	ightened.					
a) True	b) False					
30) Multiple sling legs should be applied to the pin on a shackle.						
a) True	b) False					
u) IIuc						
21) Nover have the nin against the live line in a sheker						
31) Never have the pin against the live line in a choker.						
a) True	b) False					
32) For two slings on a shackle, what is the maximum permitted included angle that does not reduce						
the WLL?						
a) 60°	c) 120°					
b) 90°	d) 180°					
.,						
33) Which statement about load hooks is the most correct?						
a) Always inspect the hook and latch before using						
b) Insure there is no excessive wear in the saddle of the hook						
c) Never use a latch that is distorted or bent						

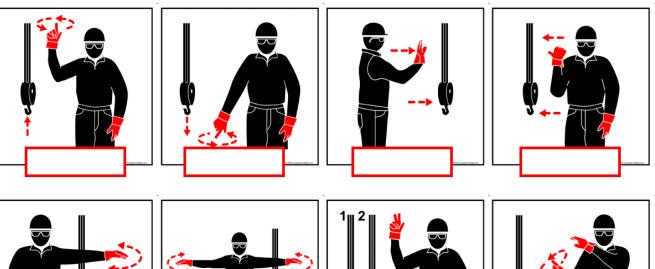
- d) Always make sure spring will force the latch against the tip of the hook
- e) All of the above
- 34) Which statement about load hooks is the most correct?
  - a) Always make sure hook supports the load
  - b) The latch must never support the load
  - c) Latches are intended to retain loose sling or devices under slack conditions
  - d) Latches are not intended to be an anti-fouling device
  - e) All of the above

the hook or load is tilted, nothing bears against the bottom of this latch. a) True b) False

35) When placing two sling legs in a hook, make sure the angle between the legs is less than  $90^{\circ}$  and if

- 36) When attaching two legged slings to a load hook that form an angle greater than 90°, what hardware must be used?
  - a) a master link
  - b) a bolt type shackle
- 37) When attaching slings with three or more legs, what hardware must be used?
  - a) a master link
  - b) a bolt type shackle
- 38) All rigging materials must be secured inside the latch area and that the latch closes.
  - a) True
- 39) It is acceptable to point load all types of hooks.
- a) True b) False
- 40) A sorting hook can be point loaded.
  - a) True
- 41) Identify the eight hand signals by filling in the boxes with the correct letter. (8pts)
  - a) Hoist (raise)
  - b) Move slowly
  - c) Lower
  - d) Multiple trolleys

- e) Bridge travel f) Emergency stop
- g) Carrier travel
- h) Stop



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- d) any of the above
- b) False

b) False

- c) a screw pin shackle
- d) any of the above

c) a screw pin shackle

- 42) A payload is being lifted with using a vertical hitch with the following components; Plain machinery eye bolt (WLL 5200 lb), synthetic sling (vertical WLL 10000 lb), Hoist (2T). What is the maximum payload?
  - a) 4000 lb
  - b) 5200 lb

- c) 10000 lb
- d) Not enough information or not safe
- 43) A payload is being lifted with a sling in basket hitch configuration with the following components; synthetic sling (basket WLL 10000 lb), and Hoist (4T). What is the maximum payload?
  - a) 4000 lb
  - b) 8000 lb

- c) 10000 lb
- d) Not enough information or not safe
- 44) A payload is being lifted using a 2 leg bridle hitch assembled with the following individual components; Plain machinery eye bolts (WLL 5200 lb), synthetic slings (vertical WLL 1000 lb), Shackles (WLL 4T), and Hoist (5T). What is the maximum payload?
  - a) 1000 lb
  - b) 2600 lb
  - c) 5200 lb

- d) 8000 lb
- e) 10000 lb
- f) Not enough information or not safe
- 45) A payload is being lifted using a 2 leg bridle hitch assembled with the following individual components; Plain machinery eye bolts (WLL 5200 lb), synthetic slings (vertical WLL 2000 lb), Shackles (WLL 4T), and Hoist (5T). The sling angle is 30°. What is the maximum payload? d) 8000 lb
  - a) 2000 lb
  - b) 2600 lb
  - c) 5200 lb

- e) 10000 lb
- f) Not enough information or not safe
- 46) A payload is being lifted using a 2 leg bridle hitch assembled with the following individual components; hoist rings (WLL 6000 lb), synthetic slings (vertical WLL 10000 lb), Shackles (WLL 4T), and Hoist (5T). The sling angle is 30°. What is the maximum payload?
  - a) 3000 lb
  - b) 6000 lb
  - c) 7500 lb

- d) 8000 lb
- e) 10000 lb
- f) Not enough information or not safe
- 47) A payload is being lifted using a 4 leg bridle hitch assembled with the following individual components; hoist rings (WLL 5000 lb), synthetic slings (vertical WLL 10000 lb), Shackles (WLL 4T), and Hoist (5T). The sling angle is  $30^{\circ}$ . What is the maximum payload?
  - a) 3000 lb
  - b) 5000 lb
  - c) 7500 lb

- d) 8000 lb
- e) 10000 lb
- f) Not enough information or not safe

## The next five questions use the following hardware;

A 5000lb load is to be rigged using a 2 leg bridle hitch using with a 10 ton overhead crane. The hardware available is (2) 5/8" hoist rings (WLL of 4000 lb), (2) 2" nylon web slings (vertical WLL 6400 lb), (2) 5/8" shackles (WLL 7165 lb), and (1) 3/4 " shackle (WLL 10.471 lb).

48) Can this load be rigged safely?

- a) Not enough information
  - b) No
  - c) Yes
  - d) Only if you use you use proper hand signals
- 49) Given the current configuration, you find the angle created with the load using the two straps equals  $30^{\circ}$  from horizontal. What is the sling tension for each leg? (hint sine  $30^{\circ}=.5$ )
  - als 30° from norizontal. What is the a) 10,000

c) 5,000

b) 2,500

- d) Not enough information
- 50) Which set of rigging gear needs to be changed to safely lift the payload and maintain a sling angle of 30°?
  - a) Nylon web slings c) 5/8 " hoist rings
  - b) 3/4 " shackle

- d) 5/8" shackles
- 51) You find that the 3/4" shackle does not properly fit on the overhead crane hook. What do you do?
  - a) use it anyway
  - b) give up and go home
  - c) hook the straps together
  - d) Find another shackle with adequate load rating that will properly fit on the hook
- 52) The 5/8" hoist ring has an effective thread length of 0.7". The hoist ring is being attached to an aluminum payload. Is it safe?

a) Yes b) No