

Qualification: 7906-30 Level 3 Advanced Technical Diploma in Site Carpentry (450)

Exam Title: 7906-001/501 Level 3 Site Carpentry – Theory Exam

Version: June 2018

Mark Scheme

Q	Acceptable answer(s)	Guidance	Max Marks
1	B		1
2	D		1
3	C		1
4	D		1
5	C		1
6	A		1
7	C		1
8	B		1
9	B		1
10	A		1

11 a)	List three types of planning permission.		
	Acceptable answer(s)	Guidance	Max mks
	<p>Answers should include the following for three marks, one mark for each</p> <ul style="list-style-type: none"> ● Outline planning ● Detailed planning ● Listed building consent ● Permitted development 		3
11 b)	Summarise two of the planning permission listed in 11 a)		
	Acceptable answer(s)	Guidance	Max mks
	<p>The candidate will need to give a broad overview of two of the following for maximum two marks for each</p> <ul style="list-style-type: none"> ● Outline planning –can be used to find out whether a proposed development is acceptable to the local planning authority, before substantial costs are incurred in developing a detailed design. ● Detailed planning –submit all the details of the proposed development at the same time. ● Listed building consent –If you want to alter or extend a listed building in a way that affects its character or appearance of a building of special architectural or historic interest, or even demolish it, you must first apply for listed building consent from your local planning authority. <p>Permitted development- You can perform certain types of work without needing to apply for planning permission. They derive from a general planning permission granted not by the local authority but by Parliament. Bear in mind that the permitted development rights which apply to many common projects for houses do not apply to flats, maisonettes or other buildings.</p>		4

12	Describe the information sources that would be consulted to accurately submit a tender.		
	Acceptable answer(s)	Guidance	Ma x mks
	<p>If the candidate gives a list of answers with no details maximum two marks can be awarded If the candidate gives a full explanation maximum five marks can be awarded</p> <p>Answers could include the following with a description:</p> <ul style="list-style-type: none"> • specifications • drawings • schedules • bill of quantities • preferred suppliers • waste percentages 		5
13	A carpenter is working on a building site and there has been a near miss incident. As a precaution it has been decided to communicate safety information to all staff. Describe two methods of communicating the safety information to the work force.		
	Acceptable answer(s)	Guidance	Ma x mks
	<p>If the candidate list two of the method with no description maximum one mark awarded.</p> <p>If the candidate list two of the method with a description maximum fours marks awarded</p> <p>Answers could include the following</p> <ul style="list-style-type: none"> • Verbal– via toolbox talk, one to one discussions, training sessions • Written– risk assessments, method statements • Electronic– emails, text • Visual information– signs, posters 		4
14	Explain the advantages of clear and concise communication when co-operating with members of the building team during a construction project.		
	Acceptable answer(s)	Guidance	Ma x mks


	<p>If the candidate gives a list of answers with no details maximum two marks can be awarded.</p> <p>If the candidate gives a full explanation maximum five marks can be awarded.</p> <p>Answers should cover the following points, with details how and why they are advantages of clear and concise communication.</p> <ul style="list-style-type: none"> • Time saving • Efficient working • Minimises errors • Save resources • Improves working relationships • Improve quality of work. 		5
15 a)	State two signs of dry rot attack.		
	Acceptable answer(s)	Guidance	Ma x mks
	<p>Answer to include any of the following to a maximum of two marks</p> <ul style="list-style-type: none"> • surface cracking • smell/musty odour • fruiting body • mycelium strands • loss of structural integrity 		2
15 b)	Explain how to eradicate dry rot attack to prevent it from reoccurring.		
	Acceptable answer(s)	Guidance	Ma x mks
	<p>Answer to include any of the following to a maximum of four marks</p> <p>Maximum one for a list response with no Explanation Maximum of four marks for explanation of how to prevent dry rot re-occurring</p> <ul style="list-style-type: none"> • remove all infected timber minimum 1 m beyond any signs of infection • treat the surrounding area with preservative • remove all plaster within 1 m • replace affected components with treated timber • treat all cut ends 		4

	<ul style="list-style-type: none">• ensure sufficient airflow is installed to ensure moisture content does not reach 20%		
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16 a)	State the name of the legislation that covers woodworking machinery		
	Acceptable answer(s)	Guidance	Ma x mks
	Answer as stated for one mark <ul style="list-style-type: none"> ● PUWER 		1
16 b)	State the name of the guidance document that is specific to woodworking machinery.		
	Acceptable answer(s)	Guidance	Ma x mks
	Answer as stated for one mark <ul style="list-style-type: none"> ● ACOP 		1
16 c)	Identify two areas found in the guidance document identified in 16 b).		
	Acceptable answer(s)	Guidance	Ma x mks
	Any two from the following for two marks. One mark for each <ul style="list-style-type: none"> ● Suitability of work equipment ● Maintenance ● Specific risks ● Information and instructions ● Training ● Dangerous parts of machinery ● Protection against specified hazards ● Stop controls ● Stability ● Markings ● Warnings 		2

17	<p>A new employee has started work and is required to operate the woodworking machine and complete a risk assessment.</p> <p>Explain safety considerations to be documented in the risk assessment, when working on this machine.</p>		
	Acceptable answer(s)	Guidance	Ma x mks
	<p>If the candidate list any four of the following with an explanation for each, maximum four marks is awarded.</p> <ul style="list-style-type: none"> ● Housekeeping - no trip hazards, tools stored away properly, debris on machine ● Training – specific to the machine to be used, operate and taking off ● Guarding – in place, correctly set, without damage ● Tooling – sharp without damage, correctly fitted, suitable for machine/task ● Manual handling- team/kinetic lifting, feed tables/rollers ● Lighting – adequate no shadows ● Extraction – service/maintained and fit for purpose ● Braking –within 10 seconds ● PPE requirements 		4
18	<p>While working on site, a carpenter is required to rip timber to width. During the sawing operation the timber binds on the saw blade.</p>		
18 a)	<p>State two possible causes for this problem.</p>		
	Acceptable answer(s)	Guidance	Ma x mks
	<p>Any two possible causes for two marks</p> <ul style="list-style-type: none"> ● Case hardened timber ● Riving knife too thin ● Riving knife incorrectly set ● Wet timber ● Fence not accurate set ● Resinous timber ● Insufficient kerf to the blade ● Twisted or warped timber 		2
18 b)	<p>Describe how the causes stated in 18 a), can be rectified.</p>		
	Acceptable answer(s)	Guidance	Ma x mks

	<p>A description outlining how the causes identified in 17 a), can be rectified, for two marks each. No marks is awarded for naming the causes again, but how to rectify the causes.</p> <ul style="list-style-type: none"> • Case hardened timber: use wedge to stop timber nipping blade • Riving knife too thin: change riving knife • Riving knife incorrectly set: reset knife to correct position • Wet timber: spray blade with lubricant use wedge • Fence not accurate set: re-set fence to ensure no lead in • Resinous timber: spray blade with lubricant use wedge • Insufficient kerf to the blade: change blade • Twisted or warped timber: ensure timber fed in correctly to reduce the possibility of jamming and kickback <p>Any other reasonable answers.</p>		4
19	State where the information can be found on the safe use of the narrow bandsaw.		
	Acceptable answer(s)	Guidance	Ma x mks
	<p>Any of the following for four marks. One mark for each Any other suitable answer accepted.</p> <ul style="list-style-type: none"> • Manufacturers literature • Risk assessments • PUWER • ACOP • HSE website 		4
20	Contact with the blade is a known risk when using circular saws. Describe three control measures that will minimise this risk.		
	Acceptable answer(s)	Guidance	Ma x mks
	<p>A description covering three control measures that will minimise the risk of contacting the blade. Any three from the list below with a description for three marks</p> <p>If a list is given with no description a maximum one mark is awarded</p> <ul style="list-style-type: none"> • guarding • training 		3

	<ul style="list-style-type: none"> • safety aids • out feed tables • good housekeeping • manual handling • braking 		
21	<p>A carpenter has been asked to make the gallows brackets as shown in Figure 1, for twelve front entrance canopy roofs. The timber has been delivered rough sawn. There is access to a small workshop with a radial arm saw, table saw, surface planer, thicknesser, band saw and a morticer.</p> <div style="text-align: center;">  <p>Figure 1</p> </div> <p>Discuss the requirements of preparing and fabricating the gallows brackets.</p>		
Acceptable answer(s)		Guidance	Ma x mks
<p>Intention: The aim of the question is to check the candidates understanding of the planning machining and fabrication processes.</p> <p>Band 1 (1 - 4 marks) Response shows no evidence of planning cutting lists or setting out components limited understanding of machine set up and use. Lists some processes with limited detail, possible out of sequence. No considerations given to safety aids / extraction /workpiece support. In order to access higher marks response shows details of one of the considerations with justification</p> <p>Band 2 (5 - 8 marks) Response shows some evidence of planning cutting lists or setting out components good understanding of machine set up and use. Lists most processes with</p>		<p>Indicative content</p> <ul style="list-style-type: none"> • Produce setting out rod • Produce cutting list • Cut timber to length • Rip nominal size • Face side edge timber • Dress width thickness • Setting out/Marking out • Cut tenon checks • Chop mortices • Band saw braces • Cut shoulders 	12

	<p>incomplete detail, mostly in sequence. Some considerations given to safety aids/ extraction/workpiece support. In order to access higher marks response shows good detail linking each part of the machining process</p> <p>Band 3 (9 - 12 marks) Response shows detailed evidence of planning cutting lists or setting out components, thorough understanding of machine set up and use. Lists all processes in detail and sequence. Safety aids / extraction/workpiece support extensively used. In order to access higher marks, the response will include strong attention to detail through a cohesive and thorough explanation. Response shows clear understanding of the process of how to setup and use static machines accurately safety and efficiently.</p>		
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