

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

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

Version: March 2018

Mark Scheme

Q	Acceptable answer(s)	Guidance	Max mks
1	C		1
2	C		1
3	C		1
4	B		1
5	C		1
6	A		1
7	B		1
8	B		1
9	A		1
10	D		1
11	<p>Any three from the list for three marks, one mark for each Any other suitable answer accepted</p> <ul style="list-style-type: none"> ● Solar panels ● Air source heating ● Ground source heating ● Biomass heating ● Double glazing. 		3

	<ul style="list-style-type: none"> ● Increased insulation ● Wind power ● Energy efficient appliances/ boilers ● use of natural light /light tunnels, positioning of windows 		
12	<p>Candidate will be awarded marks as follows for four marks.</p> <p>Any other suitable answer accepted</p> <p>Because the building is old and in middle of a town (1 mark) it is likely to be of special architectural interest (1 mark), therefore the building is very likely to be in a conservation area or listed (1mark) so listed building consent will be required (1 mark).</p> <ul style="list-style-type: none"> ● structural survey carried out (1mark) 	Original question designed to check learners understanding of building control rather than structural integrity.	4
13	<p>Any four from the list for four marks, one mark for each.</p> <p>Any other suitable answer accepted</p> <ul style="list-style-type: none"> ● Upgrading the thermal properties of the loft, ● Structural alterations to the joists such as forming an opening for a stair or strengthening joists, ● Forming openings in the roof for windows ● Fire proofing ● Additional structural steel <p>Changes to floor plan below</p> <ul style="list-style-type: none"> ● structural alterations to rafters ● ventilation to conform to building regulations 		4
14 a)	Explanation could include any of the following points for six marks, two marks		6

	<p>for each point with reason why these points contribute to planning</p> <ul style="list-style-type: none"> • Extended time for specialist trade areas to carry out the work • Availability of specialist labour in the locality • The sourcing of specialist construction materials required • Bespoke items to be designed • Bespoke items to be manufactured • Possible planning issues and variations • Contingency for unknown structural defects • Wild life surveys • Specialist structural surveys prior to major changes 		
14 b)	<p>One mark each for any two methods mention, one marks for each description for each method. Maximum four marks</p> <ul style="list-style-type: none"> • Gantt cart (1 mark), it gives the time, when things is happen and what resource requires are needed, this is to allow work and to run smoothly and efficiently. (1 mark) • Critical path analysis (1 mark), show the times, targets, activities require, milestones and the relationship between stages this gives an overview of what stages are dependent on the other is order to start. (1 mark) • Schedules and specifications (1 mark) 		4
15	<p>Candidate will be awarded two marks for the methods and four mark for comparison</p>	<p>If only one method compared maximum of three marks</p>	6

	<p>of method in relation to cost, time and strength</p> <p>Replace the joist ends with a splint repair (1 mark)</p> <ul style="list-style-type: none"> ● Cost - cheaper, Less materials ● less labour therefor less time Ease: Quicker ● Strength - not as strong – temporary propping maybe required ● Preserving the existing floor (conservation) <p>Replace the joist entirely (1 mark)</p> <ul style="list-style-type: none"> ● cost – more expensive ● time: more stable ● more materials ● more labour ie resource ● listed might not be able to be replaced ● ease – longer job 		
16	<p>Answer could include any four of the following for four marks. Any other suitable answer accepted</p> <ul style="list-style-type: none"> ● Appropriate training has been given the operator and the person taking off ● Check for faults ie guard, blade, power supply etc ● In a suitable area which is well lit, Level, dry and sufficient space ● Appropriate extraction ● Riving knife set to correct distance ● Crown guard set correctly ● Training records completed ● Designated marked out area 		4

17	<p>Candidate will be awarded a maximum two marks for listing purposes of limited projection tooling.</p> <p>Candidates will be awarded a maximum of two mark for justifications of the purposes</p> <p>Any other suitable answer accept</p> <ul style="list-style-type: none"> ● The limiters reduce the maximum cut possible per revolution to 1.1 mm ● To meet the requirements of the current PUWER regulations ● To reduce injury due to accidental hand contact with the cutter block ● Used to improve quality of finish ● Tooling evenly balanced ● Minimise the risk of ejection of cutters ● Reduces noise ● Reduces the risk of kick back 		4
18	<p>Answer could include the following for four marks, two marks for stating the order the timber would be cut and two marks for why it would be cut in this order</p> <ul style="list-style-type: none"> ● The timber would be crosscut first (1 mark), then ripped (1 mark) as there is one wider piece, ● If it was ripped before cross cutting it would be impossible to get the wider piece out of the length (2 marks). 		4
19	<p>Explanation could include the following for seven marks, with justification of their requirements and considerations</p> <ul style="list-style-type: none"> ● The blades must be removing and installing according to manufacturer's information and instruction ● Machine made safe and/or isolated 		7

	<ul style="list-style-type: none"> • Ensure the blade are handled and stored correctly • Ensure the replacement blades are correct for use (Ripping and cross cutting) • Check blade is within 6/10 rule for circular rip saw • Checking the direction of rotation • Riving knife and guards set according to current ACOP. • Complete in house maintenance documentation. 		
20	<p>Answer could include any two of the following for two marks. Any other suitable answer accepted</p> <ul style="list-style-type: none"> • Used to improve safety • Used to improve quality of finish • Used to make extraction more efficient • To reduces ejection of materials 		2
21	<p>Levels marking</p> <p>Intention: <i>The aim of the question is to check the candidates understanding of pre-planning, costing and site set up for construction work over a public highway.</i></p> <p>Band 1 (1 – 4 marks) Response shows limited understanding of the considerations and planning processes. Little to no mention of costing or site set up. Does not link to each part of the planning process. Planning not thought out. In order to access higher marks response shows details of one of the considerations with justification.</p>	<p>Indicative content</p> <p>Indicative content:</p> <p>Considerations</p> <p>Planning:</p> <ul style="list-style-type: none"> • Site survey <ul style="list-style-type: none"> ○ Access requirements ○ Material requirements ○ Storage requirements ○ Risk Assessments/method statement 	12

	<p>Band 2 (5 – 8 marks) Response shows good understanding of the considerations and planning requirements. Most of the considerations, planning requirements and site set up is given with some detail, may not link each part of the process. Some justification of ordering the processes correctly. In order to access higher marks response shows good detail linking each part of the process.</p> <p>Band 3 (9 – 12 marks) Response shows extensive understanding of the considerations and planning requirements. Majority if not all of the considerations, planning requirements and site set up is given with comprehensive detail. A well thought out plan. In order to access higher marks, the response will include strong attention to detail through a cohesive and thorough discussion</p>	<ul style="list-style-type: none"> ○ Notify authorities if appropriate <p>Costing</p> <ul style="list-style-type: none"> ● Access equipment ● Labour ● Materials ● Overheads ● Profit margin ● Price given to client for approval ● Request written acceptance before starting <p>Site set up</p> <ul style="list-style-type: none"> ● Maintain public access to the shop ● Cordon off work in area with appropriate signs ensuring safe walk way ● Access requirements and equipment, correct access equipment for working a heights ● Welfare and security facilities ● Waste disposal and site maintenance 	
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