

PROPERTY CARE ASSOCIATION

Certificated Surveyor in Remedial Treatment and Structural Waterproofing

28 October 2015

MODULE 3: *The identification and remedial treatment of dampness*

NOTES FOR CANDIDATES

1. Read the instructions and questions carefully.
2. Answers should be illustrated with sketches where appropriate.
3. Any abbreviations must be given in full when first used.
4. The duration of this written examination paper is 2 hours.
5. The paper consists of two sections which are assessed separately: both must be passed.
6. **All** questions should be answered.

SECTION A

(This question should be answered in no longer than about **30 minutes**)

Outlined below are some basic facts about a property and a problem within it.

The property is mid-terrace house built in the 1920s with a front room and dining room and with a kitchen in a later back extension. The original part of the property has suspended timber floors and the joists run from back to front; the addition has a solid floor.

The owner, Mr C Settle, has asked you to investigate a problem of dampness evident at the bottom of the internal wall between the kitchen and the dining room. You have permission to remove skirting boards, lift floor boards etc. There are no units or appliances on the kitchen side of the wall.

Using your experience and knowledge, create and lay out a report of your inspection, including recommendations, exactly as you would submit it to Mr Settle. A sketch plan of the ground floor is provided for you to add notes to and use as part of your report.

Do not include your own name or that of your company in the report.

SECTION B

- 1) Describe how you would apply an injected damp-proof course (low pressure) system to a solid wall **more than** 230 mm thick and where you have access to one side only.
- 2) Give the full title of BS 6576 and list the four methods for installing chemical damp-proof courses described in the standard.
- 3) Briefly describe three different reasons why dampness occurs at a low level in masonry but is not due to rising dampness.
- 4) Name the hygroscopic salts that occur:
 - a) as a result of rising dampness, and
 - b) as contamination from chimney flues.
- 5) If required to assess the effectiveness of a chemical damp-proof course, describe how you would determine the amounts of hygroscopic and capillary (free) water in mortar samples taken from the wall.
- 6) Having obtained the data in the following Table using the methods described in Q5, give your interpretation on the effectiveness of an injected damp-proof course (all samples are mortar). Explain your answer.

Height up wall (mm)	Total moisture content (% wt/wt)	Hygroscopic moisture content (% wt/wt)	Capillary moisture content (% wt/wt)
1750	0.2	0.2	Nil
1500	0.3	0.3	Nil
1250	0.2	0.2	Nil
1000	4.1	3.8	0.2
750	8.4	2.8	5.6
500	10.0	2.1	7.9
250	15.0	1.2	13.8

- 7) List the reasons why an electrical moisture meter will give an incorrect reading even when the instrument, including the battery, is in good working order.
- 8) In rising dampness, describe the mechanism by which water is able to rise up the wall.
- 9) Give details of the system that you specify for re-plastering following treatment for rising dampness. If no damage is visible to the existing plaster, would you still recommend re-plastering? Explain your answer.
- 10) Name the active ingredient(s) in a thixotropic cream and describe how such a product is able to control rising dampness.
- 11) Explain why black mould is commonly associated with condensation but not with rising dampness.
- 12) Describe all aspects of the remedial treatment that you would recommend for dampness in the base of a rubble-filled wall.