



# Building design and defects for residential estate agency (BDDREA)

## Sample Questions and Answers

**propertymark**  
QUALIFICATIONS

# BUILDING DESIGN AND DEFECTS FOR RESIDENTIAL ESTATE AGENCY (BDDREA) SAMPLE QUESTIONS AND ANSWERS

This unit covers buildings, their design, construction, and sustainability; together with common defects, building and planning control, and energy and environmental issues.

Questions, and answers where provided, are correct as at time of publishing.

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## ASSESSMENT INFORMATION

Assessment Method	Short essay style exams 2 hours
Availability of assessment	Set times of the year as identified within the qualification page on the <a href="#">Propertymark Qualifications website</a>

Examinations are manually marked by an examiner and moderated by an experienced and qualified moderator.

The pass mark for each unit is **45%**.

The successful achievement of all units will result in either a final certificate showing a Pass or Distinction Grade.

In order to obtain an overall grade of Distinction, you need to achieve an **overall average mark of 70% across all examinations**.

# SCENARIO 1

You are selling a 1960s property with a flat roof extension constructed in the 1970s.

## Question 1

Outline and give examples of the main causes of defects in residential property due to weathering.

### Answers may include:

- Temperature changes — solar gain/freezing e.g., expansion/contraction
- Rainfall — wetting/drying cycle e.g., expansion/contraction
- Wind erosion e.g., wearing away prominent in exposed locations
- Rainwater penetration e.g., decay/mould
- Dampness e.g., fungal decay/rot

Credit can be given by markers for any other valid answer(s).

# SCENARIO 1 (CONTD.)

## Question 2

Discuss the typical problems that can be associated with flat roofs.

Answers may include:

- Poor design
- Poor workmanship
- Identifying less than 2 per cent fall
- Sagging of beams or deck leading to ponding
- Differential stresses and cracking in finishes
- Thermal forces/movement
- Occurs daily and with seasons as felt heats/cools
- Will cause rucking/ridging which will lead to splits/blisters  
Splits in felt at edges and upstands and use of angle fillet at upstand
- Defects in surface finishes: stone chippings or solar paint. Former can be washed off or damage roof if stood on and latter needs reapplication. Modern felts require no protection
- Mention of other finishes e.g., lead/asphalt. Latter can suffer creep/splits

**Credit can be given by markers for any other valid answer(s).**

# SCENARIO 2

Your client is buying a detached property. It has a hipped roof, with new replacement concrete tiles, which replaced clay tiles.

## Question 1

The surveyor's report has mentioned a defect related to the roof. Identify the defects that might occur in the scenario.

### Answers may include:

- Could get sagging of roof plane or ridge/hips
- New concrete tiles potentially could increase load and place additional strain on roof
- Leans may be caused by roof spread either due to undersized members or lack of triangulation
- Leans usually caused by lateral force
- Slight leans may be left but if distortion is more than 1/6 thickness of wall potential instability
- Lack of support to purlin at hipped end where timber not supported can push out top of walls

Credit can be given by markers for any other valid answer(s).



# SCENARIO 2 (CONTD.)

## Question 2

Explain the regulations that govern water supply and give examples of defects.

Answers may include:

### Regulations

- Water supply and distribution covered by Water Act 2003 and associated regulations
- Rural supplies may be springs/bore holes. May be untreated. Environment Agency may check potability
- OFWAT is the economic regulator in England and Wales

### Defects

- Mainly copper distribution piping within properties, some plastic/lead. Lead illegal since 1988/89
- Lead pipework should be replaced
- Metal cold water storage tanks may rust (usually from inside outwards) and weight must be adequately supported (most are now plastic)
- Insulation or adequate cover to supply pipework to prevent freezing
- Lack of a stop tap within the property
- Leaking at joints in supply pipes

Credit can be given by markers for any other valid answer(s).

# SCENARIO 3

You are marketing an apartment in a three storey block of flats. The block is served by a common boiler which is managed by an owners group/committee.

## Question 1

Explain what specific fire protection measures are required for a three storey block.

### Answers may include:

Building Regulations Part B

Answer relates to both three storey accommodation and flats

- Will need a protected staircase and escape route with 30 minute fire resistance and any doors onto this have to be a self-closing fire door
- Emergency lighting and signage usually provided

For flats, the regulations cover the escape route in two parts:

- Escape from the dwelling (flat)
- Escape to final exit

Each flat needs:

- to be a fire compartment with high-risk areas (e.g. kitchen) furthest from door
- internal escape routes to be kept clear
- smoke alarms fitted
- maximum 9 metre travel distance
- suitably marked and clear external escape route
- escape route 30 minute fire rated with max 7.5 metres to staircase

Boiler room needs:

- its own fire compartment
- self-closing doors with 30 minute fire resistance
- smoke and heat alarms inside and outside boiler room
- 30 minute fire resistance for walls, floor and ceiling

**Credit can be given by markers for any other valid answer(s).**



# SCENARIO 3 (CONTD.)

## Question 2

Suggest ways in which renewable energy sources could be used and what issues may need to be addressed for each option.

### Answers may include:

Sunlight options, heat pumps, combined heat and power, biomass and wind turbines

- Sunlight options/issues:

- Solar thermal panels or photovoltaics panels. Need unshaded south facing roofs Weight issues – so loadings will need to be checked
- Would work best as communal scheme so could cover heat and power requirements for communal areas – need metering system for individual flats

- Heat pumps options/issues:

- Can be air/ground/water. Ground usually most efficient
- Collect heat from ground and use this to heat property
- Work best over large area with pipe loops sunk into ground 1-2 metres
- Would need to be a communal scheme if ground source
- Could have individual air source heat pumps in each flat and in communal areas (but then makes communal boiler redundant)

- Biomass options/issues:

- Use timber/crops grown to be burnt to generate heat and power
- Carbon neutral as carbon released in burning offset by growth cycle
- Fuel used needs to be brought in and stored so need suitable storage area
- Would work best as communal supply

- Combined heat and power:

- Would work best with communal supply of heat and water
- Would need metering of individual flats

Wind options/issues:

- Questions over efficiency for individual properties
- Requires wind with low turbulence – need open area for it to be successful, unaffected by surrounding properties
- Possible noise concerns
- Possible visual intrusion concerns

**Credit can be given by markers for any other valid answer(s).**

# SCENARIO 4

Your client is looking to purchase a 1930s property. The property has timber framed, single glazed windows and is located close to a major river.

## Question 1

Your client is considering replacing the existing timber windows with new UPVC windows. What legislation applies, what criteria must be met and what are the structural implications of replacing the windows?

### Answers may include:

Must be installed by FENSA installer (or building notice required).

- Applies since 2002 and any work must be certified, and certificate kept to pass on to subsequent owners
- Windows will need to meet Building Regulations for:
  - o structure
  - o means of escape
  - o ventilation
  - o disabled operation
- Low E glass should be fitted
- Ventilation 1/20th floor area or airtightness
- Trickle ventilator
- Glass within 800mm of the finished floor level (FFL) or within 300mm of a door must be safety glass
- Does not apply to repairs e.g., replacing glass, frame repairs
- Answers may also make link between structural support offered by timber windows and possible lintel repairs/issues

**Credit can be given by markers for any other valid answer(s).**

# SCENARIO 4 (CONTD.)

## Question 2

Discuss how property could be affected and the implications for building insurance.

Answers may include:

### Effects on Property

- Flooding due to number of factors e.g., natural occurrence of flood plains, and existing development near rivers/water courses
- Increased amount of hard landscaping increasing run off
- Risk of flooding can be found by searching Environment Agency website
- Flooding will cause structural damage and timber/plaster will need to be replaced/dried out
- Will also cause damage to electrics/drainage

### Insurance

- Flood Re scheme set up to provide affordable insurance to households unable to obtain reasonable cover
- Royal assent gained in May 2014, FCA confirmed in effect from 1 April 2016 for Flood Re
- Insurance being more expensive
- Limitation on who is offering insurance

Credit can be given by markers for any other valid answer(s).

# SCENARIO 5

You are selling a 1990s detached property, which is close to a motorway on one side and to the rear is an existing industrial estate.

## Question 1

Discuss how noise pollution is governed by legislation, and how this would affect the property value.

### Answers may include:

- Noise nuisance does not affect structure but will affect enjoyment of property
- Motorway noise permitted because sanctioned in statute
- Compensation paid when motorway built based on diminution in value. This needs to be taken into account in any subsequent valuation
- Other noise may be classed as 'statutory nuisance' covered by Environmental Protection Act 1990. May apply to any noise from the industrial estate for example
- Definitions under Act includes smoke/fumes/dust/noise prejudicial to health
- Local authority can issue abatement notice
- Street noise covered by Noise and Statutory Nuisance Act 1993
- Covers noise from people/machinery between 11pm/7am, covers workman/clubs for example
- Local authority powers to limit or prohibit street noise
- Noise Act 1996 covers noise from dwellings
- If area is known as noisy likely to have detracting effect on value

**Credit can be given by markers for any other valid answer(s).**

# SCENARIO 5 (CONTD.)

## Question 2

Explain what is meant by permitted development for residential property. Identify the main permitted developments and any exclusions which may apply.

### Answers may include:

- Covers development which does not require planning permission
- Covered by Town & Country Planning (General Permitted Development) (England) Order 2015 for England
- Town & Country Planning (General Permitted Development) Order 1995 for Wales
- Some permitted development covered also by Use Classes Order

Types of permitted development include: Porches/small extensions/garages/loft

- Some of these subject to size restrictions may give examples
- Slight differences in Wales
- Exclusions in protected areas (conservation areas/national parks) and protected buildings (listed buildings)
- Local authority may also remove permitted development rights by issuing Article 4 - e.g., in conservation area

**Credit can be given by markers for any other valid answer(s).**