

# TEST BANK TO ACCOMPANY:

This series of test questions, created for use with your students, provides short answer, multiple-choice, true/false and fill in the blank questions based on the text and arranged by chapter. A separate answer key is available.

## Introduction

- Components in the building industry tend to conform to a range of standard sizes. Why is this beneficial for both manufacturers and designers?
- What are the two principal measurement systems in the building industry?
- What does a production information drawing provide the building contractor, or anyone else involved in the construction, with?
- What should a production information drawing outline?
- What is meant by a 'tender'?
- Detail drawings are drawn at which of the following scales?
  - 1:200
  - 1:2
  - 1:50
  - 1: 10
  - 1:100
  - 1:5

## Chapter 1: Existing Walls

- Briefly explain the difference between a loadbearing and non-loadbearing wall.
- What support is necessary for a monolithic floor slab?
- What depth are mortar joints?
  - 215mm
  - 10mm
  - 75mm
  - 102.5mm
  - none of the above
- A horizontal line of brickwork is known as a \_\_\_\_\_.

- Which two types of joints are used externally to shed rainwater from the face of a wall?
- The careful finishing of mortar joints is referred to as what?
  - stretching
  - mortaring
  - bonding
  - pointing
  - raking
  - none of the above
- What is a lintel and when is it used?
- What is meant by the 'bearing strength' of structural building materials?
- In cavity-wall construction, where is water ingress more likely and why?
- What can be done to help prevent internal water saturation on a non-cavity wall?

## Chapter 2: New Walls

- What is meant by a 'partition' in interior-design projects?
- Why are bricks and blocks avoided in the construction of partitions?
- A partition with the decorative texture of its surface materials and joints left exposed is referred to as \_\_\_\_\_.
- What are the advantages and disadvantages of using a concrete wall?
- How might the appearance, if not the weight and solidity, of a concrete wall be achieved?
- In a stud partition, what are the first two coats of wet plaster replaced with?
- What do plasterboard sheets consist of?
- What does the 'drywall' technique eliminate?
- True or false? Hardwood is used for the skeleton frame of a stud partition?

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- 10 What are 'clout' nails used for?
- 11 Why is it important that all junctions of plasterboard sheets have studwork, whether timber or metal, behind them?
- 12 What are the two vulnerable areas in the skimming and drywall plasterboard systems? Choose one of these areas and outline what can be done in both systems to prevent problems.
- 13 Briefly explain how corners can be reinforced at the junctions of stud partitions.
- 14 Lists the advantages and disadvantages of metal framing for stud partitions.
- 15 Why did skirtings evolve?
- 16 Why is timber often replaced by MDF (medium density fibreboard) in skirtings?
- 17 When are skirtings fixed?
- 18 What are the advantages of using a specialist adhesive to fix skirtings directly to the plastered wall surface?
- 19 What is the function of cornicing?
- 20 What solutions are there for improving the soundproofing of stud partitions?
- 21 List some of the stratagems by which the fire rating of stud partitions can be improved?
- 22 How can metal columns be fireproofed?
- 23 Explain what is meant by each of the following:
  - first fix
  - second fix
- 24 Explain how essential service wires and pipes are installed in each of the following:
  - partition walls
  - masonry
  - concrete

## Chapter 3: Alternative Partitions

- 1 Why is it generally good practice to use straight lines in all aspects of construction?
- 2 True or false? It is standard practice to use conventional straight-sided bricks or blocks when building a curved wall.
- 3 Explain how curves can be constructed in a stud partition wall.
- 4 What are the two options for the base to which plaster may be applied in a stud partition wall?
- 5 Why do freestanding walls need additional support if they are attached only to the floor?
- 6 What is one method of providing a secure fixing for the base of exposed timber supports?
- 7 List the two basic principles for dealing with visible construction joints.
- 8 In demountable partitions, what are timber-split battens increasingly being replaced with? What is the advantage of these?
- 9 What are the disadvantages of using glass as a partition?
- 10 Why is it good practice to use a soft, resilient strip between glass and frame?
- 11 What is meant by 'lateral bracing'? What is its function?

## Chapter 4: Doors

- 1 What does the word 'jamb' refer to? What is the role of a jamb?
- 2 The word 'head' refers to the \_\_\_\_\_ framing on the upper edge of a door.
- 3 What is the name of the cover strip used to mask the junction between frame and wall finish?
  - (a) stop
  - (b) jamb
  - (c) architrave
  - (d) skim coat
  - (e) batten
  - (f) none of the above

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- 4 In modern door detailing, what does the shadow-gap option enable?
- 5 What does a fanlight allow?
- 6 True or false? A glazed wall or a substantial floor-to-ceiling glazed wall section is known as a 'vision panel'.
- 7 What do fire regulations stipulate in relation to doors?
- 8 For frameless doors, what is inserted into the edges of the door leaf to meet fire-resistance standards?

## Chapter 5: Floors

- 1 What material do solid ground floors use? Why?
- 2 What is the purpose of incorporating a DPM within the poured concrete for a floor?
- 3 What is DPC short for? What is the function of a DPC?
- 4 What are 'joists'?
- 5 True or False? The narrower the depth of a floor joist the greater the depth it can span.
- 6 What does RSJ stand for?
  - (a) rigid steel joint
  - (b) rolled section joist
  - (c) rolled-steel joist
  - (d) none of the above
- 7 Generally a column creates what is known as a 'point load'. What is meant by this?
- 8 What is a 'padstone'? What is its function?
- 9 What is a party-wall agreement? What does it provide?
- 10 Explain how and why the following might be used in the construction of a mezzanine:
  - timber joists
  - laminated beams
  - steel beams
  - concrete beams
- 11 What is a 'stanchion'?
- 12 What are the basic principles involved when inserting an opening into a new floor?
- 13 The joist supporting the end of the cut joists is called a \_\_\_\_\_.
- 14 What is a 'subfloor' and why is it necessary to introduce one?
- 15 How is a good quality screed achieved?
- 16 Select two of the following finishing materials and outline their advantages:
  - stone and clay tiles
  - plastic and rubber tiles
  - timber
  - carpets
- 17 In descriptions of wood or quasi-wood flooring what do the terms 'veneer' and 'laminate' refer to?
- 18 On new concrete floors, where is it normal for wires and pipes to be laid? What is electrical wiring normally enclosed in?
- 19 Why should holes in joists for wiring and pipework be drilled in the centre of joists?

## Chapter 6: Ceilings

- 1 Briefly explain the modern technique for ceiling construction.
- 2 How might the underside of a concrete floor be finished in order to create a ceiling?
- 3 When might a suspended ceiling be appropriate?
- 4 What are 'hangers'?
- 5 What material can be used to create small curved ceiling forms?
- 6 What are the advantages of a proprietary suspended ceiling system?

## Chapter 7: Furniture, Fixtures and Fittings

- 1 What is the difference between joinery and carpentry?
- 2 In furniture, what is a 'carcass'?

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- 3 List three wood jointing techniques and explain how they work.
- 4 What is the process of cutting channels in wood is known as?
  - (a) jointing
  - (b) cladding
  - (c) routing
  - (d) morticing
  - (e) lapping
  - (f) none of the above
- 5 True or False? Veneers are thin sheets of timber, usually no more than 5mm thick.

## Chapter 8: Stairs

- 1 Explain the four standard types of stairs.
- 2 Select three stair terms from the following and explain what each is:
  - string
  - flight
  - rise
  - going
  - tread
  - riser
  - nosing
  - landing
  - stairwell
- 3 List four means of reinforcing timber treads.
- 4 What are 'balusters' or 'banisters'?
- 5 Why does a cantilevered tread make serious demands on the structure of a wall?

## Chapter 9: Materials

- 1 Explain the difference between softwood and hardwood.
- 2 The trunk of a tree generally goes towards the timber used in buildings in two different forms. What are these?
- 3 What are composite timbers made from? List the two most common ones used in building.

- 4 How is a laminated beam manufactured?
- 5 What are the advantages and disadvantages of MDF?
- 6 What are the advantages of plasterboard?
- 7 What does plywood consist of? How workable is it?
- 8 Two types of steel used in the construction of interiors are \_\_\_\_\_ and \_\_\_\_\_.
- 9 What are the advantages of using aluminium? Why is its structural use in building limited?
- 10 Select two from the following secondary manufacture of glass and explain what they are and why they might be used:
  - toughened glass
  - laminated glass
  - multiple glazing
  - wired glass
  - glass blocks
- 11 Explain the techniques of sandblasting and acid etching on glass.
- 12 How are acrylic sheets manufactured? What are the advantages of acrylic over glass?
- 13 What are the three options for fixing the basic materials used in interior construction?

## Chapter 10: Structural Principles

- 1 True or false? When elements under compression fail they tear apart.
- 2 The tendency of a beam to bend under loading means that the material on the upper edge will be \_\_\_\_\_ and the material on the lower edge will be \_\_\_\_\_.
- 3 For each of the following construction materials, indicate whether they are strong or weak in terms of compression and tension:
  - timber
  - steel
  - concrete
- 4 Will a beam, slab or column be weakest at its end or midpoint? Why is this?

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- 5 The loadbearing capacity of a beam depends on the beam's \_\_\_\_\_, while stability depends on its \_\_\_\_\_.
- 6 What is a cantilever?
- 7 Explain the difference between a simple cantilever and a counterbalanced structure.
- 8 What is the difference between a downstand beam and an upstand beam? How might both be disguised?
- 9 Explain how structural rigidity can be improved in a stud partition.
- 10 For each of the following indicate the rough rule of thumb sizing:
  - loadbearing masonry (brick, block or stone)
  - reinforced concrete
  - steel columns
  - timber columns or posts
  - beams
  - floor slabs supported on two sides
  - floor slabs supported on four sides