This question paper is the property of the City and Guilds of London Institute and is to be returned after the examination.

Read the following notes before you answer any questions
• You **must** use a pen with black or blue ink to complete all parts of the answer sheet.
• Check that you have the correct answer sheet for the examination.
• Check that your name and candidate details are printed correctly at the top of your answer sheet.
• Inform the invigilator if your name or examination details are not correct.
• Each question shows four possible answers (lettered ‘a’, ‘b’, ‘c’ and ‘d’); only one is correct.
• Decide which one is correct and mark your answer on the answer sheet with your pen.

For example if you decide ‘a’ is correct, mark your answer like this

![Example](101)  b  c  d

If you want to change your answer, cancel your first choice by filling in the ‘cancel’ box below the circle like this

![Example](101)  b  c  d

Then mark the answer which you have now decided is correct. For example if you now decide ‘c’ is correct, mark your answer like this

![Example](101)  b  c  d

Any other marks on the form may invalidate some of your answers.

• Any calculations or rough working can be done on the question paper.
• Attempt all questions. If you find a question difficult, leave it and return to it later.

This paper contains 60 questions. Answer them using the ‘boxes’ numbered 1 to 60 on the answer sheet.
1. Which member of the building team is considered as a professional role?
   a. Joiner.
   b. Bricklayer.
   c. Plant operator.
   d. Architectural technician.

2. Which approved document of the building regulation requires that a new build house is fuel efficient?
   a. Part A.
   b. Part B.
   c. Part K.
   d. Part L.

3. What does the ‘M’ stand for in BIM?
   a. Modelling.
   b. Management.
   c. Modules.
   d. Manufacture.

4. What foundation type is shown in Figure 1?
   a. Pad.
   b. Strip.
   c. Wide strip.
   d. Trench fill.

5. What type of brickwork bond is shown in Figure 2?
   a. Stretcher.
   b. Flemish garden.
   c. English garden.
   d. Monk.

6. What component is found in solid ground floor constructions?
   a. DPC.
   b. DPM.
   c. Air bricks.
   d. Solid strutting.

7. Which image shows a Fink truss in Figure 3?
   a. A.
   b. B.
   c. C.
   d. D.

8. What is the second coat called, when applied in a three coat paint system for bare woodwork?
   a. Gloss.
   b. Mist.
   c. Primer.
   d. Undercoat.
9 Which operation is classed as second fix?
   a  Partitions.
   b  Architraves.
   c  Door frames.
   d  Stairs.

10 Which statement is true, in relation to working drawings?
   a  Hand drawings can be easily distributed.
   b  CAD drawings can be easily modified.
   c  Hand drawings are only used by technicians.
   d  CAD drawings can be produced by anyone on site.

11 What type of projection is produced using the 30° angle on a set square?
   a  Orthographic.
   b  Isometric.
   c  Dimetric.
   d  Axonometric.

12 What foundation type will be used under a free standing brickwork pier to support an iron gate?
   a  Pad.
   b  Pile.
   c  Raft.
   d  Strip.

13 Which part of the superstructure is load bearing?
   a  Timber stud partition.
   b  Metal stud partition.
   c  Internal leaf of a cavity wall.
   d  External leaf of a cavity wall.

14 A cripple rafter is fitted between which two components?
   a  Wall plate and ridge.
   b  Wall plate and hip.
   c  Ridge and valley.
   d  Hip and jack.

15 A small extension is been built using permitted development rights. Select an answer that best relates to the statement and reason.

   Statement
   Regular visits by building control still have to be arranged at certain times.

   Reason
   To ensure conformity to the Building regulations.

   a  Statement true    Reason true.
   b  Statement false   Reason true.
   c  Statement true    Reason false.
   d  Statement false   Reason false.

16 How must plasterboard off-cuts be removed from site?
   a  In general skip, because it is recyclable.
   b  In sealed bags, because it is dangerous waste.
   c  In mixed waste, because it can be used for landfill.
   d  In designated skip, because it requires specialist disposal.

17 What is the purpose of positioning DPM within a solid concrete floor construction?
   a  To prevent moisture draining into the ground.
   b  To prevent moisture rising into the hardcore.
   c  To prevent moisture draining into the hardcore.
   d  To prevent moisture rising into the concrete.

18 During construction of stud partitions, which statement best relates to the position of the centres?
   a  200 mm centres, to remove the requirement for strutting.
   b  300 mm centres, to line up with the stud work.
   c  400 mm centres, to suit the width of plasterboard sheets.
   d  500 mm centres, to suit the width of plasterboard sheets.

Please note that this OET test has been amended to ensure it is fit for purpose for use as a sample assessment.
19 Which statement best describes the component indicated by the arrow in Figure 4?

a  Collar tie, used to prevent the roof from spreading.
b  Ceiling joist, it provides intermediate support for the rafters.
c  Binder, used to prevent the roof from spreading.
d  Purlin, it provides intermediate support for the rafters.

20 What door type is shown in Figure 5?

a  Framed ledged and braced.
b  Ledged and braced.
c  Panelled.
d  Flush.

21 What is the item of ironmongery shown in Figure 6?

a  Face plate.
b  Escutcheon.
c  Push plate.
d  Security viewer.

22 What type of plane is shown in Figure 7?

a  Try.
b  Jack.
c  Block.
d  Smoothing.

23 What is the name given to the moulding that runs around a room at chair back height?

a  Skirting board.
b  Architrave.
c  Picture rail.
d  Dado rail.
24 What type of moulding is shown on the skirting board in Figure 8?
   a  Torus.
   b  Ovolo.
   c  Ogee.
   d  Chamfered.

25 What is the name of the tool shown in Figure 9?
   a  Scriber.
   b  Bradawl.
   c  Nail punch.
   d  Centre punch.

26 What joint is used to extend the length of a skirting board?
   a  Finger.
   b  Half lap.
   c  Scarf.
   d  Heading.

27 What nail is best used to fix architrave to a timber door lining?
   a  30 mm clout.
   b  40 mm lost head.
   c  60 mm floor brad.
   d  100 mm wire.

28 Why would a pipe boxing have an inspection hatch?
   a  To check for leaks.
   b  To insert insulation.
   c  To gain access to service valves.
   d  To gain access to a junction box.

29 What type of cladding is shown on the pipe box in Figure 10?
   a  Plasterboard.
   b  Matched board.
   c  PVC.
   d  MDF.

30 What saw is best used to cut around a waste pipe in a pipe boxing?
   a  Bow.
   b  Rip.
   c  Coping.
   d  Panel.

31 What fixing is best used to secure access panels in service encasements?
   a  Screws and cups.
   b  Bugle headed screws.
   c  Galvanised clout nails.
   d  Stainless steel nails and caps.

Please note that this theory test has been amended to ensure it is fit for purpose for use as a sample assessment.
32 What type of kitchen unit is shown in Figure 11?
   a Corner.
   b Base.
   c Tower.
   d Island.

33 What is the decorative trim used on the underside of wall units called?
   a Fascia.
   b Plinth.
   c Pelmet.
   d Cornice.

35 What is the name given to the joint used at an internal corner, when using post formed worktop?
   a Housing.
   b Dowelled.
   c Masons mitre.
   d Loose tongue.

36 How thick will the middle rail be, when a 16 mm board is used in the construction of a 44 mm thick FLB door?
   a 16 mm.
   b 28 mm.
   c 44 mm.
   d 60 mm.

37 Which hinges would best be used on an oak external door?
   a 100 mm mild steel butts.
   b 100 mm brass butts.
   c 70 mm mild steel butts.
   d 70 mm brass butts.

38 What best describes the purpose of a door schedule?
   a Lists all the components required to hang external doors.
   b Lists all the doors by size, specifications and location.
   c States the time allocated to hang each door.
   d States fitting tolerances against each door.

39 What is the correct sequence when fitting a door in a new build?
   a Shoot hanging side, fit head, dress bottom, shoot lead edge.
   b Shoot lead edge, shoot hanging side, fit head, dress bottom.
   c Fit head, dress bottom, shoot hanging side, shoot lead edge.
   d Fit head, shoot lead edge, dress bottom, shoot hanging side.
40 How are clear finished hardwood mouldings fixed?
  a Screwed and pelleted.
  b Nails and punched.
  c Adhesive tape.
  d Cups and screws.

41 What cladding material is best suited to encase services, where a skimmed finish is required?
  a PVC.
  b Plywood.
  c Hardboard.
  d Plasterboard.

42 What portable power tools would be used for fabricating and fixing service encasements?
  a Router, chop saw, planer.
  b Chop saw, drill, nail gun.
  c Nail gun, sander, trimmer.
  d Drill, sander, router.

43 What worktop material requires regular oiling?
  a Post formed.
  b Solid timber.
  c Granite.
  d Composite.

44 What type of ironmongery is best selected when fitting a ledged and braced door?
  a Tee hinge and rim lock.
  b Tee hinge and mortice lock.
  c Concealed hinge and rim lock.
  d Concealed hinge and mortice lock.

45 Heavily moulded 27 mm thick architrave and 32 mm thick skirting has been specified for a development of executive houses, what is the reason that plinth blocks are used at the intersection?
  a The skirting is thicker than the architrave.
  b The architrave requires additional support.
  c To avoid the mitring at their intersection.
  d To minimise the effects of shrinkage.

46 A torx screw is shown in Figure 13. What is the main benefit of using this type of screw head?
  a It is used for its decorative finish.
  b It is used for because of its low cost.
  c It is designed for collated screw tools.
  d It is used because it reduces slippage.

47 Dado rail is required on the whole of the ground floor of a large public building. The height has to be transferred to each room from a datum in the corridor. What method is best used?
  a Water level, because it transfer levels around obstacles.
  b Spirit level, because it is the most accurate method.
  c Chalk line, because this will mark the full length of the wall accurately.
  d Boning rods because they can be sighted through over long distances.

48 Which timber is classed as a softwood?
  a Douglas fir.
  b Oak.
  c Beech.
  d Mahogany.

49 What moisture content is recommended for internal joinery?
  a 5 %.
  b 12 %.
  c 20 %.
  d 25 %.
50 What document provides specific guidance on the safe use of circular saws?

a RIDDOR.
b COSHH.
c ACOP.
d HASAWA.

51 What guard is indicated by the arrow in Figure 14?

a Bonnet.
b Bridge.
c Crown.
d Tunnel.

52 What part of the saw blade is indicated by the arrow in Figure 15?

a Hook.
b Gullet.
c Root.
d Heel.

53 What is the minimum distance the hand must be away from the saw blade, when using a rip saw?

a 200 mm.
b 300 mm.
c 400 mm.
d 500 mm.

54 Which timber defect will weaken the strength of a joist?

a Blue stain.
b Resin pocket.
c Face knot.
d Sloping grain.

55 13 plywood risers need to be cut for a staircase, what type of saw is best used for this task?

a Narrow band.
b Dimension.
c Crosscut.
d Rip.

56 What is the purpose of a riving knife?

a To act as a brake to the blade.
b To split the timber down the grain.
c To prevent the timber twisting while being sawn.
d To prevent the timber binding on the back of the blade.

57 What is the minimum saw blade size allowed for a machine designed to take 500 mm diameter blade?

a 200.
b 300.
c 400.
d 500.
The question below consists of a statement and a reason. Select an answer that best relates to the statement and reason.

**Statement**
Structural timber must always have a moisture content less than 20%.

**Reason**
Timber with a moisture of 20% or greater is susceptible to attack by wet rot.

- a  Statement false  Reason false.
- b  Statement false  Reason true.
- c  Statement true  Reason false.
- d  Statement true  Reason true.

Timber has been delivered for a hand cut roof, it has been noticed that one piece has a large edge knot, how will the timber be used in constructing the roof?

- a  The knot positioned uppermost, because it is under compression.
- b  The knot positioned uppermost, because it is under tension.
- c  The knot positioned to the underside, because it is under compression.
- d  The knot positioned to the underside, because it is under tension.

While fitting new worktops to a refurbished kitchen the worktops need to be routed to form a corner, which statement best describes the worktop that would be routed face uppermost in Figure 16?

- a  Worktop A, because the jig only works from the face.
- b  Worktop B, because the jig only works from the back.
- c  Worktop A, to avoid breakout to the postformed edge.
- d  Worktop B, to avoid breakout to the postformed edge.

**HOW GO BACK AND CHECK YOUR WORK**

**IMPORTANT**
Are the details at the top of the answer sheet correct?
Have you filled in your answers in INK in the appropriate boxes on the answer sheet?