

Foundation in Construction and Building Services Engineering (Level 2)

On Screen Assessment Sample Test



Note:

This is a paper-based copy of an exclusively on-screen test, therefore with some of the questions, there are some interactive elements that are not able to be replicated in this format (clicking on images to select the appropriate area and dragging options in to the correct order).

Instructions:

There are 45 questions in this paper.

All questions are worth one mark.

You have 70 minutes to complete this paper.

Unless otherwise stated, you must select **one** option for each question.

1. Which of these has been designed to incorporate a bedroom in the loft space?
 - a. Dormer bungalow.
 - b. Terrace house.
 - c. Apartment.
 - d. Static mobile home.

2. Which of these should be included in a public building to meet cultural requirements?
 - a. Library.
 - b. Music room.
 - c. Prayer room.
 - d. Gallery.

3. An area of an inner city is being adapted to encourage regeneration of the shopping district.
What should be done to support this?
 - a. Design park and ride routes.
 - b. Increase pay and display areas.
 - c. Develop retail parks.
 - d. Introduce a congestion charge.

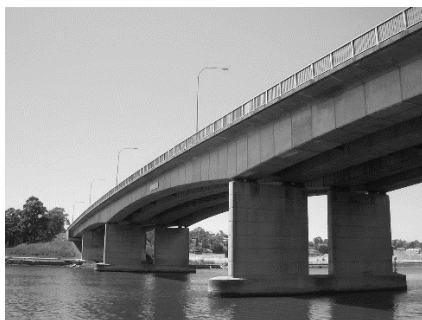
4. Which of these is a suspension bridge?



a.



b.



c.



d.

5. Which trade occupation would **most** likely work with stonemasonry?
 - a. Roofing.
 - b. Trowel.
 - c. Plastering.
 - d. Wood.

6. Why should lime-based plasters be used to refurbish a nineteenth century property?
 - a. To increase the fire rating.
 - b. To modernise the building.
 - c. To increase thermal properties.
 - d. To conserve the buildings heritage.

7. Which **two** pieces of equipment should be used for setting out the foundations of a new building?
 - a. Staff.
 - b. Scanner.
 - c. Set square.
 - d. Plumb bob.
 - e. Optical level.

8. Why would a raft foundation be used during the construction process?
 - a. To prevent moisture rising.
 - b. To minimise underground vibration.
 - c. To prevent subsidence in soft ground.
 - d. To eliminate rising water in flood plains.

9. Which of these is an objective in biodiversity conservation?
 - a. To maintain life-supporting systems.
 - b. To conserve water-use.
 - c. To optimise building space.
 - d. To reduce energy usage.

10. What is the purpose of an isometric drawing?
 - a. To show assembly method of components.
 - b. To view an object from three sides.
 - c. To view six angles at the same time.
 - d. To show a site location in relation to its surroundings.

11. What is the primary purpose of the 'polluter pays' principle regarding environmental damage?
- To assess the level of pollution caused to the environment.
 - To survey the type of waste pollution.
 - To pay for the recycling of waste materials.
 - To pay for the harm caused to the environment.

12. In Wales why are some buildings required to be registered as listed?
- To conserve their heritage.
 - To maintain traditional skills.
 - To prevent rising house costs.
 - To increase tourism revenues.

13. Drag from the left column and drop in to the right column to complete the question.
Complete the sequence of activities to correctly construct a brick/block cavity wall house.

Internal plastering.

Roof slating.

Substructure to DPC.

A.

B. Brickwork to wall plate.

C.

D. Door linings.

E.

14. Which marketing method would be **best** used by a small trade business to promote their services?
- National TV advert.
 - Local newspaper advert.
 - International trade journal.
 - Influencer on social media.
15. What is a benefit of having a planned maintenance schedule?
- Increases down time of equipment.
 - Shortens time between new material required.
 - Increases the amount of stock materials required.
 - Extends the serviceable life of equipment.

16. Which of these would require an authorisation to allow a change of use?
- a. Applying new render on a property.
 - b. Splitting a house into multiple flats.
 - c. Demolishing a wall to make an open plan area.
 - d. Installing new lintels above doorways.
17. Why is planning approval required before demolishing a building in a residential area?
- a. To identify potential safety risks.
 - b. To prevent future legal action.
 - c. To prevent land contamination.
 - d. To ensure segregation of waste.
18. Which of these demolition methods **best** allows recycling of materials?
- a. Using explosives.
 - b. Using an excavator.
 - c. By hand stripping.
 - d. By crane and ball.
19. Which of these is used to record income and expenditure in a business?
- a. Receipt.
 - b. Invoice.
 - c. Ledger.
 - d. Tender.
20. What is **most** likely to cause poor quality work?
- a. Using inadequate tools.
 - b. Using traditional materials.
 - c. Using multi skilled operatives.
 - d. Using inferior safety equipment.
21. What does an Approved Code of Practice (ACOP) do?
- a. Allows employers to set standards.
 - b. Provides guidance on new technology.
 - c. Increases protection of new building work.
 - d. Gives advice on how to comply with the law.

22. Which of these is a power of the Health and Safety Executive?

- a. Employ sub-contractors to complete safety checks.
- b. Arrest site personnel for breach of regulations.
- c. Demand the seizure of dangerous equipment.
- d. Check individual employees tax records.

23. Which of these activities could cause dermatitis when working on-site?

- a. Installing drainage.
- b. Applying plastering systems.
- c. Installing pipework.
- d. Constructing window opening.

24. Which of these accidents should **not** be reported under RIDDOR?

- a. Internal organ damage.
- b. Loss of consciousness.
- c. Fractured toes.
- d. Loss of sight.

25. Why are method statements produced?

- a. To provide a safe working procedure.
- b. To record potential accidents.
- c. To identify hazards in the workplace.
- d. To identify near misses.

26. Drag from the left column and drop in to the right column to complete the question.

A fire has occurred in the work place.

Complete the sequence of activities to safely evacuate the work place.

Register all staff.

a. Raise the alarm

Evacuate the building.

b.

Go to the nearest assembly point.

c.

d.....

e Await notification to return to work

27. Drag the correct label to identify **each** of the signs.

a)



b)



Warning.

Information.

Mandatory.

Direction.

Prohibition.

28. Why is it good practice to PAT test power tools?

- a. To identify a safe power source.
- b. To ensure they are safe to use.
- c. To calculate the trigger time.
- d. To extend the warranty.

29. What **must** be ensured to protect pedestrians from moving plant on-site?

- a. Clearly visible warning signs.
- b. All operators wear high vis jackets.
- c. Segregated access routes are in place.
- d. Mechanical lifting takes place only at night.

30. Why would a permit to work be issued when scheduling construction work?

- a. To determine the level of risk.
- b. To identify workplace hazards.
- c. To authorise high risk activities.
- d. To carry out plant maintenance.

31. What is the **most** important reason for segregating waste in the workplace?
- a. To identify material for recycling.
 - b. To establish the cost of material disposal.
 - c. To identify materials for manufacturing.
 - d. To record the amount of material disposed.
32. Which **two** methods are **best** used to reduce the spread of dust on a construction site?
- a. Drip trays.
 - b. Incineration.
 - c. Screening.
 - d. Surface wetting.
 - e. Vibration curtains.

33. Drag from the left column and drop into the right column to complete the question.

Complete the sequence to show the BIM life cycle during the construction process.

- | | |
|---------------------|------------|
| Programming. | a. |
| Maintain. | b. Design. |
| Planning. | c. |
| | d. Build |
| | e. |

34. What is a benefit of using self-healing concrete when constructing new buildings?

- a. It will control vapour.
- b. It does not need decoration.
- c. It reduces maintenance costs.
- d. It allows increased productivity.

35. Why are immersive technologies used within the construction industry?

- a. To display a proof of concept simulation of a structure.
- b. To be able to construct a building from a remote location.
- c. To improve staff morale through interactive activities.
- d. To virtually modify the drawings in real time.

36. Which of these systems is linked to the construction of offsite manufactured bathroom pods?
- Panelised.
 - Volumetric.
 - Hybrid.
 - Cast in-situ concrete.
37. Which of these is a benefit of producing buildings through off-site construction techniques?
- All components will be produced by different companies.
 - The climate conditions have no impact on production.
 - Design can be easily changed during construction.
 - All components are locally sourced.
38. Which of these is the term in the BIM process that describes the single source of information for any given project?
- Project Information Modelling (PIM).
 - Common Data Environment (CDE).
 - Asset Information Modelling (AIM).
 - Employer's Information Requirements (EIR).
39. Which **two** of these construction activities should have their materials calculated by area?
- Fixing plasterboard to ceiling joists.
 - Installing pipes for a bathroom.
 - Laying blocks to build a wall.
 - Laying concrete for a floor base.
 - Installing electric cable for first fix.
40. Which of these is a benefit of using traditional recyclable materials for restoration work in a conservation area?
- They are cheap to purchase.
 - Less storage is required on site.
 - Limited availability of the product.
 - They match existing period designs.
41. How should a customer's care needs be met during the different stages of a construction development in a residential area?
- By making specific decisions for the client.
 - By continued consultation during the build.
 - By giving a single update at the project end.
 - By updating client multiple times each day.

42. Drag from the left column and drop into the right column to complete the question.

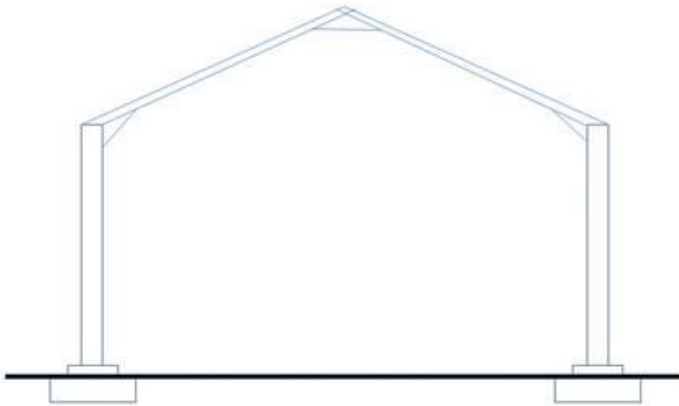
Complete the sequence to show the correct procedure for managing a risk in the workplace.

- | | |
|---------------------------------------|-----------------------------|
| Rate the severity of the risk. | a. |
| Plan the work schedule. | b. |
| Identify possible hazards. | c. Identify who is at risk. |
| | d. |
| | e. Input control measures |

43. Which **two** of these trades would be required to install structural load bearing materials and components as part of their role?

- a. Roofer.
- b. Plasterer.
- c. Bricklayer.
- d. Architectural Joiner.
- e. Painter and decorator.

44. Identify the ridge bracket on the image below.



45. Which of these describes a listed building?

- a. A building built with a cavity wall.
- b. A building of over a hundred years old.
- c. A building built with a solid wall.
- d. A building with importance to the community.