# Unit 106: Introduction to emerging technologies in construction and the built environment sector

# Multiple-choice questions (learner)

1. Which BIM dimension includes the construction sequencing? Select one.
2. 3D
3. 4D
4. 5D
5. 6D
6. What is soft landings? Select any that apply.
7. Soft landings is the inclusion of the soft landscape design, implementation and maintenance within the project plan.
8. Soft landings is a process for a gradual handover of a new building, where a period of professional aftercare by the project team is a contractual client requirement.
9. Soft landings is carried through from project inception, through design development and review, pre handover, initial aftercare, and for up to three years post-completion.
10. Soft landings is a non-proprietary data format for the publication of a subset of building information models.
11. Which one of the following is not part of the BIM life cycle?
12. Plan
13. Design
14. Analyse
15. Maintain
16. Where would you find a BIM protocol:
17. Within the 3D modelling data
18. Within the Precontract BIM Execution Plan
19. Within the Construction Contract
20. Within the Construction Operations Building Information Exchange (COBie)
21. Which one of the following is a term used to describe 3D printing?
22. Additive Manufacturing (AM)
23. Computer Aided Manufacturing (CAM)
24. Asset Information Modelling (AIM)
25. Project Information Modelling (PIM)
26. Which one of the following is a definition of AR?
27. A digital simulation that you can interact with
28. A model that can provide graphical information
29. A computer-simulated ‘enhancement’ of real life
30. Combines both Virtual and Augmented Reality
31. Which two of the following can be added to concrete to give it ‘self-healing’ properties?
    1. Bio-degradable paste
    2. Bacterial solution
    3. Quartz crystals
    4. Hemp fibres
    5. Memory polymer tendons

1. Which one of the following statements about Transparent Aluminium (Aluminium Oxynitride) is correct?
2. Is a clear metal
3. Is a strong ceramic
4. Is a type of graphene
5. Is self-healing
6. Which two of the following off-site construction systems are used when bathroom or kitchen pods are installed into the construction?

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| 1. Hybrid systems |
| 1. Volumetric units |
| 1. Panelised open systems |
| 1. Components |

1. Which one of the following is not a benefit of off-site construction?
2. Value
3. Efficiency
4. Sustainability
5. Customisation