



Myfuture CBC Revision

building construction - Grade 10

Question Paper

1. Why is conducting a test pit or trial hole important during site preparation?

- A. To make extra space for temporary storage of materials
- B. To assess soil type, depth of hard strata, and groundwater levels for foundation design
- C. To dispose of vegetation and roots
- D. To find buried treasure left on the site

2. Why is a building's load path important in foundation design?

- A. It shows how loads travel from roof and walls down to the foundations so foundations can be
- B. It replaces the need for soil tests
- C. It determines where the paint should be applied
- D. It tells the colour of bricks to use

3. Which concrete mix is commonly used for ordinary foundation work in Kenya (nominal mix)?

- A. 10:1:1 (cement:sand:coarse aggregate)
- B. 1:2:4 (cement:sand:coarse aggregate)
- C. 1:5:10 (cement:sand:coarse aggregate)
- D. Pure cement without aggregates

4. What is the benefit of using standard line types (like dashed for hidden) in CAD building drawings?

- A. They speed up the computer's processor
- B. They make it easier for builders and engineers to understand different features at a
- C. They prevent the file from being copied
- D. They add animation to the drawing

5. What is commonly used to seal threaded pipe joints to prevent leaks?

- A. PVC glue
- B. PTFE (Teflon) tape
- C. Concrete
- D. Sand

6. What is 'bleeding' in fresh concrete?

- A. A method of curing with wet burlap
- B. Cracking caused by heavy loads
- C. Separation of water rising to the surface after placement
- D. Staining from steel reinforcement

7. What effect does a high groundwater table have on foundation design?

- A. It increases soil bearing capacity and reduces need for foundations
- B. It prevents the use of concrete completely
- C. It makes the soil drier and stronger
- D. It reduces soil bearing capacity and may require special waterproofing or deeper

8. Which fitting is used to join three pipes together allowing flow in two directions from one pipe?

- A. Cap
- B. Elbow
- C. Reducer
- D. Tee

9. Why are expansion loops or allowances provided in long hot water pipe runs?

- A. To reduce water pressure
- B. To add extra flow resistance
- C. To absorb thermal expansion and prevent stress
- D. To allow for cleaning

10. What is the effect of using crushed angular aggregates instead of rounded river stones?

- A. Crushed angular aggregates give better bond with cement paste but may need more water
- B. They eliminate the need for cement
- C. They reduce strength to zero
- D. They make concrete edible

11. What is the correct meaning of 'timber grading' in construction?

- A. Measuring timber only by its length
- B. Classifying timber by strength, defects and suitability for different uses
- C. Painting timber with grades of colour
- D. Classifying timber by musical tone

12. Which of the following is a key property of copper pipes that makes them suitable for plumbing?

- A. They dissolve in water to prevent blockages
- B. They are magnetic
- C. Good heat conduction and high resistance to corrosion
- D. They are transparent for inspection

13. How does vegetation near foundations affect them?

- A. Vegetation makes foundations fireproof
- B. Plants always strengthen the soil under foundations
- C. Tree roots can cause soil drying and movement leading to foundation problems
- D. No effect at all

14. What is a 'waling' (wale) in timbering?

- A. A vertical post that supports a beam
- B. A joint used to connect two timber beams end to end
- C. A horizontal timber that distributes load from vertical shores
- D. A chemical used to preserve timber

15. What is the main difference between driven piles and bored piles?

- A. Driven piles are used for roofs; bored piles are used for walls
- B. Driven piles are placed by driving into the ground; bored piles are formed by drilling and
- C. Driven piles are used only in dry seasons; bored piles only in rainy seasons
- D. Driven piles are always made of wood; bored piles are always metal

16. What should be done if a building site has a high water table before constructing foundations?

- A. Ignore the water and build immediately
- B. Lower the water table or use waterproofing and suitable foundation types
- C. Plant trees to absorb the water overnight
- D. Only build during the rainy season

17. Which pipe material is suitable for carrying hot domestic water without deforming?

- A. Standard PVC (uPVC)
- B. Glass
- C. CPVC (chlorinated polyvinyl chloride)
- D. Galvanized iron

18. When is a deep foundation (e.g., piles) preferred in Kenya?

- A. When building only a single small shed
- B. When the soil near the surface is weak or there is high water table
- C. When you want to avoid using concrete
- D. When the topsoil is very strong

19. Which member is typically vertical and used to support loads in timber shoring?

- A. Scaffold plank
- B. Waling
- C. Shore (prop)
- D. Formwork panel

20. What is timbering in building construction?

- A. The permanent wooden roof structure of a house
- B. Painting timber to improve its appearance
- C. Using timber only for interior flooring
- D. The use of timber as a temporary support to prevent collapse of trenches or excavations

21. Which material is most suitable for downpipes that carry rainwater from gutters?

- A. Glass tubing
- B. Cloth
- C. Cardboard tubing
- D. PVC downpipe

22. What is the purpose of a plumbing trap (e.g., P-trap) under a sink?

- A. To increase water pressure
- B. To heat waste water before disposal
- C. To hold water and prevent sewer gases from entering the building
- D. To filter drinking water

23. Where should a damp-proof course (DPC) be placed in relation to the finished ground floor level?

- A. Buried deep beneath the foundation so it never touches the walls
- B. At least 150 mm above external ground level and at the level of the floor to prevent rising
- C. Only on the roof to stop rain from entering
- D. On top of the final floor finish as a decorative strip

24. Which plastic pipe should not be used for carrying hot water because it softens at higher temperatures?

- A. PPR (polypropylene random copolymer)
- B. Copper
- C. Standard PVC (uPVC)
- D. CPVC

25. Which pipe material is most resistant to corrosion for underground drainage in Kenyan buildings?

- A. Bare iron
- B. Unprotected steel
- C. PVC
- D. Wood

26. Which pipe material is traditionally preferred for hot water supply because it withstands heat well?

- A. Rubber hose
- B. PVC
- C. Clay
- D. Copper

27. Which fitting gives a more gradual change in direction than a sharp elbow, reducing flow resistance?

- A. Bend
- B. Cap
- C. Plug
- D. Union

28. Which timber joint is traditionally strongest for connecting beams in framing?

- A. Simple overlap without fixing
- B. Mortise and tenon joint
- C. Scotch tape joint
- D. Butt joint held by a single nail

29. What material are most sanitary fixtures (toilets and washbasins) made from?

- A. Vitreous china (ceramic)
- B. Galvanized iron sheet
- C. Glass wool
- D. Plywood

30. In plumbing, pipe sizes are commonly referred to by which term?

- A. Nominal bore (NB)
- B. Actual outer color
- C. Length in meters only
- D. Pipe weight index

31. What does CAD stand for in building construction drawing?

- A. Computer Assisted Drafting
- B. Calculated Architectural Details
- C. Computer Aided Drawing
- D. Construction And Design

32. Which type of valve is best for quickly stopping or allowing flow in a water pipe?

- A. Ball valve
- B. Strainer
- C. Check valve
- D. Globe valve

33. Which of these materials is least suitable as a foundation material for a modern permanent building?

- A. Stone or masonry placed on firm ground
- B. Soft decaying organic topsoil
- C. Reinforced concrete
- D. Good compacted crushed stone

34. What is meant by 'bearing stratum' under a foundation?

- A. The topmost grass layer
- B. A temporary wooden formwork
- C. The decorative finish on foundation walls
- D. The layer of soil or rock that safely supports the loads

35. What is a strip footing?

- A. A decorative stone path around a building
- B. A round column foundation for isolated loads
- C. A continuous strip of foundation that supports a load-bearing wall
- D. A temporary wooden scaffold base

36. What is the main role of formwork (shuttering) made from timber in concrete construction?

- A. To decorate the finished concrete surface only
- B. To shape and support fresh concrete until it gains strength
- C. To be permanently hidden inside concrete
- D. To act as roof support after concrete sets

37. Why is pipe insulation important for hot water pipes in a house?

- A. To reduce heat loss and save energy
- B. To make the pipe heavier
- C. To change the water colour
- D. To increase corrosion

38. Which material is most commonly used for cold water supply pipes in Kenyan houses?

- A. PVC (uPVC) pipe
- B. Concrete pipe
- C. Galvanised steel pipe
- D. Copper pipe

39. Which CAD feature allows you to create and reuse a group of objects like a door or window?

- A. Layer
- B. Viewport
- C. Block
- D. Hatch

40. What does the term 'shoring' mean?

- A. Providing temporary supports to carry loads or resist collapse
- B. A type of permanent foundation
- C. Finishing the surface of timber with varnish
- D. A method of placing bricks in a wall

41. What should be done with surface water collected on a construction site during preparation?

- A. Divert it into open drains without filtering
- B. Store it on site permanently
- C. Provide temporary drainage or settling pits and direct clean water away from excavations
- D. Let it flood the foundation trenches to settle the soil

42. Which valve type is best for a fast on/off shut off in household plumbing?

- A. Ball valve
- B. Butterfly valve
- C. Needle valve
- D. Globe valve

43. Which pipe material will not rust even if exposed to moisture?

- A. Galvanised steel
- B. Mild steel
- C. Cast iron
- D. PVC plastic

44. Which fitting is used to change the direction of a pipe run by 90 degrees?

- A. Flange
- B. Elbow
- C. Trap
- D. Reducer

45. Which of the following is a common preservative treatment used to protect timber against termites and fungi, and is safe for many indoor uses?

- A. Soaking timber in seawater
- B. Borate (borax) treatment
- C. Painting with lead paint
- D. Pouring petrol over timber

46. What is the role of reinforcement cover (concrete cover over steel) in foundation concrete?

- A. To make the steel look visible
- B. To protect steel from corrosion and fire, and to ensure good bonding with concrete
- C. To make it easier to cut the steel later
- D. To reduce the concrete strength intentionally

47. What is a tie beam in foundation construction used for?

- A. To serve as a decorative feature around the foundation
- B. To connect pile tops or isolated footings and reduce differential settlement
- C. To tie the roof tiles together
- D. To hold temporary scaffolding only

48. Which tool is commonly used to check levels during site preparation for foundations?

- A. Chainsaw
- B. Spirit level or dumpy level (survey level)
- C. Hammer
- D. Shovel

49. Why is proper compaction important when placing concrete?

- A. To remove air voids and ensure full contact with reinforcement, increasing strength
- B. To change the colour of concrete
- C. To make concrete lighter
- D. To keep water on the surface

50. What is the function of a sub-base blinding (thin layer of plain concrete) under a floor slab?

- A. To act as the main structural reinforcement for the slab
- B. To provide a clean, level surface to lay the DPM and prevent puncture by sharp stones
- C. To cool the ground under the slab during hot weather
- D. To serve as the final floor decorative finish

