Myfuture CBC Revision

building construction - Grade 10

Question Paper

1. What is the purpose of setting a drawing scale in CAD for construction plans?

A. To encrypt the drawing file

B. To add textures to walls

C. To change the colour of lines for printing

D. To represent real building sizes accurately on paper

2. What personal protective equipment (PPE) is essential when working with timber on site?

A. Gloves, eye protection, helmet and safety boots

B. Only a hat for sun protection

C. Only a pair of sandals

D. No protection is needed for timber work

3. What is a trial pit used for in site preparation?

A. To plant saplings for erosion control

B. To assess soil layers, depth to rock and groundwater conditions

C. To dispose of construction waste

D. To store construction materials

4. Which foundation type is used when the soil near the surface is weak and good bearing strata is deep?

A. Deep foundations such as piles

B. Shallow strip footing

C. Lightweight timber foundation

D. Stone masonry foundation without reinforcement

5. Which instrument is used to measure water pressure in a domestic plumbing system?

A. Spirit level

B. Pipe cutter

C. Plumber's snake

D. Pressure gauge (manometer)

6. Which pipe material is commonly used for hot water plumbing because it tolerates high temperatures well?

A. Copper

B. PVC (regular)

C. Concrete

D. Clay

7. What is a shallow foundation?

A. A foundation sunk to bedrock regardless of width

B. A foundation made only from bricks above ground

C. A foundation placed at a depth not more than its width and close to ground surface

D. A temporary wooden base used during construction

8. What is a flange used for in plumbing systems?

A. To increase water temperature

B. To bolt and join pipes or connect a pipe to equipment

C. To make pipes transparent

D. To filter out bacteria

9. Which of the following is a common cause of foundation failure in Kenya?

A. Poor soil compaction or removal of topsoil before construction

B. Installing many windows

C. Painting the foundation concrete

D. Using too much paint on walls

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

A. Plywood

B. Vitreous china (ceramic)

C. Glass wool

D. Galvanized iron sheet

11. What should be checked before pouring foundation concrete on a rainy day in Kenya?

A. That windows are opened to dry the site

B. That workers stop all waterproofing work permanently

C. That the site has more puddles than usual

D. That water has been drained from excavations and wet soft soil is managed

12. Which practice helps prevent corrosion of steel water pipes in Kenya?

A. Leaving it in soil without protection

B. Galvanizing the steel

C. Painting with plain water

D. Wrapping in untreated paper

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

A. Reducer

B. Elbow

C. Trap

D. Flange

14. Which soil test is commonly used on site to assess soil for foundations in simpler projects?

A. Measuring the number of ants on the site

B. Asking neighbours about the soil colour

C. Trial pit inspection and simple field tests

D. Cooking the soil to see its smell

15. What does the term 'shoring' mean?

A. A type of permanent foundation

B. Finishing the surface of timber with varnish

C. Providing temporary supports to carry loads or resist collapse

D. A method of placing bricks in a wall

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

A. Classifying timber by strength, defects and suitability for different uses

B. Classifying timber by musical tone

C. Painting timber with grades of colour

D. Measuring timber only by its length

17. What should you do if a steep slope is present on the building site before foundation work begins?

A. Assess earthworks such as benching, retaining walls or terracing to provide a stable

B. Ignore the slope and reduce foundation depth

C. Build directly at the bottom without any changes

D. Remove all soil down to bedrock

18. Which personal protective equipment (PPE) is most important to use when soldering copper pipes?

A. No protection needed

B. Safety goggles

C. Baseball cap

D. Flip-flops

19. Why is preservative treatment applied to timber used in contact with the ground?

A. To make the timber heavier so it does not move

B. To protect it from decay, termites and fungal attack

C. To make timber grow longer in size

D. To change the timber colour for decoration

20. Which of the following is the best immediate action if workers discover active termite damage in installed timber on a building site?

A. Use tape to cover the damaged area

B. Paint the timber and hope termites go away

C. Ignore it and continue building

D. Report to the site supervisor, isolate the area and treat or replace affected timber as directed

21. Which tool is commonly used to solder (braze) copper pipes in plumbing installations?

A. Blow torch (soldering torch)

B. Plunger

C. Pipe wrench

D. Electric drill

22. Which soil condition would most likely require a suspended floor rather than a ground-bearing slab?

A. Site has paved roads nearby

B. Site is perfectly dry with strong rock beneath

C. Site is indoors on the top floor of a building

D. Site is in a flood-prone area or has poor, waterlogged soil

23. Which plumbing material is typically joined by soldering?

A. HDPE pipes

B. Cast iron pipes

C. uPVC pipes

D. Copper pipes

24. When balancing cut and fill on a site, what is the aim?

A. To use excavated material to fill low spots, minimising the need to import or export soil

B. To export all excavated material off site

C. To place all fill material under the foundations

D. To import as much material as possible

25. Which tool is mainly used to smooth and level timber surfaces after sawing?

A. Plane

B. Chisel for concrete

C. Pickaxe

D. Spirit level

26. For safe trench timbering, what is an important planning step before placing timber supports?

A. Ignore nearby buildings and services

B. Start digging without any plan and decide later

C. Assess soil type, depth, and water conditions to design appropriate shoring

D. Only check the weather forecast

27. What is the benefit of placing thermal insulation under a ground floor slab in a home?

A. It replaces the need for a DPM

B. It reduces heat loss through the floor, making the home more comfortable and energy

C. It makes the slab heavier and harder to build

D. It causes moisture to collect under the floor

28. Which flooring finish is best suited for wet areas like kitchens and bathrooms on ground floors?

A. Untreated timber directly on ground without protection

B. A loose gravel surface inside the room

C. Raw earth finished with no treatment

D. Ceramic tiles because they are water resistant and easy to clean

29. What is timbering in building construction?

A. The permanent wooden roof structure of a house

B. Using timber only for interior flooring

C. Painting timber to improve its appearance

D. The use of timber as a temporary support to prevent collapse of trenches or excavations

30. What is the primary purpose of a building foundation?

A. To prevent sunlight from entering the building

B. To provide decorative base for the building

C. To transfer loads from the building to the ground safely

D. To increase the height of the building

31. Which factor is most important when deciding how deep a foundation should be?

A. The location of the nearest road

B. The colour of the soil

C. The number of windows in the building

D. The depth of competent bearing soil or rock

32. Which tool is used to clear deep blockages in drains and sewers?

A. Plumber's snake (drain auger)

B. Plunger

C. Basin wrench

D. Adjustable spanner

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

A. Construction And Design

B. Computer Aided Drawing

C. Computer Assisted Drafting

D. Calculated Architectural Details

34. Why is it important to provide safe site access and traffic management during site preparation?

A. To protect workers and the public and to allow safe delivery and removal of materials

B. So vehicles can drive anywhere on the site without restriction

C. To prevent neighbours from entering the site for social visits

D. To make the site look more professional only

35. Why is reinforcement (steel) used in concrete footings?

A. To increase the footing's porosity

B. To make the footing lighter

C. To decorate the concrete surface

D. To resist tensile stresses and control cracking

36. What material commonly used in Kenya as a sub-base alternative for small domestic floors is 'murram'?

A. A decorative tile pattern

B. A waterproof plastic membrane brand

C. A locally available lateritic soil used when properly selected and compacted as a sub-base

D. A type of timber used for joists

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

A. They reduce strength to zero

B. They make concrete edible

C. They eliminate the need for cement

D. Crushed angular aggregates give better bond with cement paste but may need more water

38. Which practice helps to reduce shrinkage cracks in concrete?

A. Proper curing and using suitable water-cement ratio

B. Painting the concrete immediately with oil

C. Removing reinforcement bars

D. Adding extra water after finishing the surface

39. When preparing a CAD drawing for printing, what is the purpose of a plotter or printer configuration (plot style)?

A. To change the CAD file format to DWG

B. To animate the drawing for presentations

C. To merge two drawings automatically

D. To control lineweights, colours and how layers print on paper

40. What is the main use of a plumber's snake (drain auger)?

A. To measure water pressure

B. To clear blockages inside drains and pipes

C. To solder copper joints

D. To tighten compression fittings

41. What is the term for energy loss caused by fittings, bends and valves in a pipe system?

A. Thermal losses

B. Minor losses

C. Frictionless flow

D. Major losses

42. What is the main purpose of a building foundation?

A. To transfer loads from the building safely to the ground

B. To collect rainwater for reuse

C. To decorate the base of the building

D. To reduce the building height

43. Why should hot water storage pipes and tanks be protected from scalding in houses?

A. To make them colder

B. To prevent burns to users and meet safety practice

C. To speed up corrosion

D. To increase water hardness

44. Why should topsoil be removed before constructing foundations?

A. Topsoil is the best foundation material and must be recycled elsewhere

B. Topsoil encourages faster concrete curing

C. Topsoil has too many stones and is too strong

D. Topsoil contains organic matter and is weak, so it should be removed to reach firmer

45. Why are reinforcement bars (steel) used in concrete foundations?

A. To make the foundation lighter

B. To stop water from entering the soil

C. To provide tensile strength and control cracking

D. To change the colour of concrete

46. When is a raft (mat) foundation used?

A. When the building is made of timber

B. Only for temporary sheds

C. When the whole building footprint spreads the load over a large weak soil area

D. When the water table is very low and soils are strong

47. When is dewatering required during foundation excavation?

A. When the weather is dry

B. To make the soil wetter for easier compacting

C. Only when the foundation is complete

D. When groundwater causes flooding or instability in the excavation

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

A. To serve as the final floor decorative finish

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 act as the main structural reinforcement for the slab

49. What is segregation in concrete?

A. Adding fibres to the concrete mix

B. A curing method using wet mats

C. Mixing concrete in one continuous batch

D. Separation of coarse aggregate from mortar during handling or placement

50. Which of these materials is least likely to corrode (rust) when used for plumbing?

A. Mild steel

B. Galvanized steel (if zinc coating is gone)

C. Cast iron

D. Stainless steel