

C31 PROPERTY DAMAGE APPRAISAL

IMPORTANT

The time allowed for this exam is 3 hours.

Total marks: 200

You must hand in this paper and any paper used for rough work to the supervisor when you leave the examination room. Failure to do so may result in disqualification.

Section A: Multiple-Choice Questions

Question 1. For the following multiple-choice questions, fill in the circle of the letter that identifies the most correct answer.

Example: (A) (B) ● (D)

DO NOT MARK THE ANSWERS ON THESE PAGES.

USE THE FIRST PAGE OF YOUR ANSWER BOOK.

1. The National Building Code should be considered as
- (A) the minimum building code standards that regulate all provincial construction.
 - (B) a guideline as to what are considered good building practices.
 - (C) regulations to be observed during the construction process.
 - (D) the requirement for production of plans and specifications for municipal construction.

2. The term **bridging** refers to
 - (A) main framing members from which sloped roof structures span.
 - (B) bearing beams used to support floor joist framing.
 - (C) framing members which are used to tie floor joists together.
 - (D) supports for the floor joists of the second floor.

3. Which of the following is a framing member used to support floor joist framing at basement level?
 - (A) Beam
 - (B) Wall plate
 - (C) Rafter
 - (D) Stud

4. The term **ridgeboard** refers to
 - (A) factory-produced laminated wood beams.
 - (B) the material used to span and cover roofer rafters.
 - (C) the framing member positioned along the peak of the roof.
 - (D) a vertical wood member supporting girders or beams.

5. Which of the following has a minimal requirement for scaffolding and manpower and also lends itself well to prefabrication?
 - (A) Balloon frame construction
 - (B) Brick joist construction
 - (C) Platform frame construction
 - (D) Post-and-beam construction

6. An advantage of unprotected metal construction is
 - (A) the interchangeability of framing members.
 - (B) ease of replacement or repair of a single damaged steel framing member.
 - (C) its resistance to damage from heat and fire.
 - (D) the ease with which it can be built.

7. In Canada, foundations walls and footings are placed
 - (A) at grade level.
 - (B) one foot below grade level.
 - (C) at a level determined by climatic conditions.
 - (D) at grade level when the building will not include a basement.

8. Foundation wall thickness depends on the
- (A) width of the footings.
 - (B) composition of the ground soil.
 - (C) height of the foundation wall.
 - (D) depth of frost penetration.
9. Cement plaster applied to the exterior wall surface of a hollow concrete block foundation is called
- (A) weeping tile.
 - (B) parging.
 - (C) pilaster.
 - (D) veneer.
10. Which of the following may signal the failure of damp-proofing, waterproofing or drainage of foundation walls?
- (A) Efflorescence
 - (B) Heaving
 - (C) Craze-cracks
 - (D) Shadowing
11. Laying brick in a manner that eliminates continuous vertical mortar joints is called
- (A) breaking joints.
 - (B) control joints.
 - (C) headers.
 - (D) lintels.
12. Which of the following masonry units provides the poorest lateral strength in walls?
- (A) Brick
 - (B) Concrete block
 - (C) Concrete brick
 - (D) Structural clay tile
13. A continuous vertical or horizontal recess built into the wall to conceal pipes and ducts is called a
- (A) chase.
 - (B) pilaster.
 - (C) stretcher.
 - (D) wythe.

14. Which of the following is classified as a hardwood?
- (A) Maple
 - (B) Cedar
 - (C) Spruce
 - (D) Pine
15. Which of the following is an advantage of spruce for framing?
- (A) It will not decay or warp readily.
 - (B) It is light in weight.
 - (C) It is resistant to wear.
 - (D) It is the strongest softwood.
16. If two wood members are being nailed together, the nailing used should be
- (A) galvanized.
 - (B) triple the length of the thickness of the member being nailed through.
 - (C) double the length of the thickness of the member being nailed through.
 - (D) at least two inches in length.
17. Water vapour within a structure
- (A) is continually dissipated through window, doors, walls and ceilings.
 - (B) is reduced by proper insulation.
 - (C) is best eliminated by passing into the wall cavity.
 - (D) occurs when outside temperature are high.
18. **Good two sides** is a grading for
- (A) concrete block.
 - (B) glass.
 - (C) lumber.
 - (D) plywood.
19. The most common wood used in window construction is
- (A) basswood.
 - (B) birch.
 - (C) oak.
 - (D) pine.
20. A **window sash** is
- (A) the perimeter unit attached to the wall framing unit.
 - (B) the trim used to contain movement of doors within their frames.
 - (C) the part of the window into which the glass is fitted.
 - (D) the casing and moulding bridging the gaps between the window frame and the interior and exterior wall finishes.

21. A **casement window** has a sash
- (A) sliding horizontally in the frame.
 - (B) secured permanently in the frame.
 - (C) hinged to the top of the frame.
 - (D) hinged to the side of the frame and singing outward.
22. In estimating, stairs are usually priced by the
- (A) length of the stringer.
 - (B) height of the risers.
 - (C) tread and its type.
 - (D) height of the balustrade.
23. Which of the following is a **TRUE** statement ? Most cabinets and counter tops are
- (A) built in place on the job site by carpenters.
 - (B) constructed of dimension lumber.
 - (C) constructed of utility lumber.
 - (D) factory or shop produced and finished.
24. Galvanized piping
- (A) has a life expectancy of approximately fifty years.
 - (B) is more resistant to corrosion than copper.
 - (C) is more resistant to heat than copper.
 - (D) has a longer life expectancy than copper.
25. Enamel paint
- (A) has excellent covering qualities.
 - (B) contains pigments dispersed in latex paint.
 - (C) dries only by solvent evaporation.
 - (D) is characterized by its smooth hard finish
26. Plate glass
- (A) is a pressed, polished glass.
 - (B) does not require grinding and polishing in its production.
 - (C) produces an unmarred surface.
 - (D) is more expensive to produce than float glass.

27. The operation of fitting and securing panes of glass into sashes is called
- (A) glazing.
 - (B) tempering.
 - (C) cladding.
 - (D) sliding.
28. With respect to a roof, the term **hip** means
- (A) an outer angle of less than 180 degrees between two intersecting slopes.
 - (B) an outer angle of more than 180 degrees between two intersecting slopes.
 - (C) the slope of a roof.
 - (D) a break in a roof line at a dormer.
29. **Patch and mop repair** is different from spot patch repair in that
- (A) a cap sheet is applied before mopping.
 - (B) the entire roof is remopped.
 - (C) new gravel is imbedded in the shingle.
 - (D) it cannot be used on flat roofs.
30. Which of the following is a type of resilient flooring?
- (A) Strip hardwood
 - (B) Parquet
 - (C) Vinyl asbestos tile
 - (D) Terrazzo
31. Modern kitchen cabinets are
- (A) constructed of dimension lumber.
 - (B) almost exclusively produced in a factory or shop.
 - (C) built in place on the job site.
 - (D) more difficult to replace than older model cabinets.
32. Which of the following is a factor that affects the cost of broadloom carpet?
- (A) Pile material
 - (B) Colour
 - (C) Nap
 - (D) Grain
33. Which of the following is a function of the main disconnect switch box?
- (A) It provides a facility for installation of overload protections on the branch circuits.
 - (B) It is a convenient terminal from which to connect branch circuits into the main incoming power lines.
 - (C) It incorporates fuses for overload protection of the main incoming power lines.
 - (D) It controls the amount of amperage drawn over the circuit wires.

34. The white cement material used to fill joints between ceramic tiles is called
- (A) fitment.
 - (B) slag.
 - (C) mud.
 - (D) medusa.
35. Which of the following is an element of the basic residential hot water heating system?
- (A) neutral bus bar.
 - (B) anti-syphon valve.
 - (C) stack vent.
 - (D) radiation unit.
36. The most common type of supply plumbing piping in use at this time is
- (A) galvanized piping.
 - (B) copper piping.
 - (C) PVC piping.
 - (D) steel piping.
37. The features of copper piping include
- (A) mechanical couplings.
 - (B) soldered connections.
 - (C) short life expectancy.
 - (D) susceptibility to corrosion.
38. The **heat exchanger** as a basic component of a forced air furnace functions to
- (A) separate the flame and its products of combustion from the air going through the house.
 - (B) circulate the air within the building.
 - (C) convert the fuel to heat through combustion.
 - (D) shut down the system if heat is not being produced.
39. Standard household lighting circuits normally use
- (A) 12 gauge wire, that will safely carry a 15 amp draw.
 - (B) 14 gauge wire protected by 15 amp fuses.
 - (C) 14 gauge wire protected from overload by 14 amp fuses.
 - (D) three live wires.
40. Steel framing is
- (A) impervious to fire damage.
 - (B) not used for columns in commercial construction.
 - (C) more fire resistant than reinforced concrete.
 - (D) generally more economical than reinforced concrete.

(2 marks each = 80 marks)

continued over

Section B: Narrative Questions

- Question 2. (a) What is a **board foot** of lumber? (2 marks)
- (b) What factors are considered in the grading of lumber products? (4 marks)
- (c) What factors should be considered in determining whether a joist requires replacement or repair after a fire? In your answer, describe possible repair options. (10 marks)
- (d) What are the advantages of drywall over plaster? (4 marks)
- Question 3. (a) What factors influence the purchase cost and installation cost of counter tops? (10 marks)
- (b) Describe the general purpose of the following materials. Indicate the specialized application of each. (4 marks)
- i) Cornerite (2 marks)
- ii) Cornerbead (2 marks)
- iii) Striplath (2 marks)
- Question 4. (a) What factors should be considered in assessing damage to acoustic tiles? (10 marks)
- (b) Identify FOUR(4) types of safety glass. (4 marks)
- (c) What problems are presented by localized repair of a roof with asphalt shingles? (6 marks)
- Question 5. (a) What factors should be considered when assessing the practicality and cost of repairs to a roof? (10 marks)
- (b) What is the most common method of restoring smoke-damaged carpet? (2 marks)
- (c) What factors will influence restoration of water-damaged carpet? (8 marks)

- Question 6. (a) Describe the safety devices used in a gas furnace. (6 marks)
- (b) Describe the TWO (2) methods used to install ceramic tile in bath/shower applications. Outline the advantages and disadvantages of each. (14 marks)
- Question 7. (a) Discuss depreciation of electrical systems. (4 marks)
- (b) What are the TWO (2) functions of a main disconnect switch box? (4 marks)
- (c) Discuss the damageability and repairability of hardwood floors as a result of water or moisture exposure. (12 marks)

