



Building Code Qualification Examination Sample Examination

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Note:

1. This document contains sample examination questions adapted from the examination question pools used to produce individual Building Code examinations.
2. Candidates should refer to the Building Code website, www.obc.mah.gov.on.ca, for important documents including relevant Examination Programs, Examination Syllabi, and Candidate Protocol.
3. The sample examination is divided into several topics. Each topic contains sample questions from one or more examination/qualification categories. Not all sample questions apply to each examination. Candidates should refer to the appropriate Examination Syllabus to determine which questions apply to a specific category.



Building Code Qualification Examination Sample Examination (cover sheet)

INSTRUCTIONS - READ CAREFULLY!

Candidate's Full Name: _____

Building Code Identification Number (BCIN) : _____

Date of Examination: _____

1. **DO NOT OPEN** this examination until directed to do so by the proctor.
2. You may use only the following during this examination:
 - The 1992, Building Code Act, 1997 Ontario Building Code and Supplementary Guidelines as amended to reflect the changes introduced by the Building Code Statute Law Amendment Act (formerly Bill 124) and O.Reg 305/03
 - Non-programmable calculatorNote: electronic versions of reference material are not permitted.
3. This examination contains **75** multiple choice questions. Each question carries equal weight. (Note: Some examinations are divided into sections. In these cases, the total score is based on the sum of the score obtained in each section.)
4. The pass mark for this examination is **70%**.
5. Read each question and option carefully, then select the **single best answer** by filling in the letter bubble on the machine scoring answer sheet. Make sure the question number and your choice correspond to the correct location on the machine scoring answer sheet.
6. Use only the pencil provided.
7. You have three (3) hours to complete the examination. Attempt to answer all of the questions. There is no penalty for selecting a wrong answer.
8. This examination paper **must** be turned in with your machine scoring answer sheet. Make sure your name is entered on **both** this examination paper and the machine scoring answer sheet. Failure to do so may lead to your examination results not being accepted.
9. Examination candidates must abide by the Ministry of Municipal Affairs' examination program candidate protocol.

Sample General, CBO and RCA Legal Questions

(Not all Questions Apply to Each Examination - Refer to Syllabi)

1. According to the Building Code Act, when a chief building official issues a Stop Work Order, the order is effective from the time it is:

- A. posted on the site
- B. made by the chief building official
- C. delivered by a building inspector or an authorized person
- D. served on the affected persons

2. According to Section 13 of the Building Code Act, the authority to make an Order To Uncover lies with the:

- A. inspector who exercises his or her powers under Section 18 of the Building Code Act
- B. inspector who is responsible for the inspection of the construction of the building
- C. chief building official or registered code agency
- D. inspector who is responsible for the inspection of the plumbing system

3. According to Section 15.11 of the Building Code Act, when a person is required by the Act to have qualifications and meet the requirements of the building code, it is an offence to:

- A. appoint a registered code agency without the authorization of a principal authority
- B. provide a design in respect of the construction of a building or a class of buildings
- C. design a building without the services of an architect, professional engineer or both
- D. represent that she/he has the qualifications if the person does not possess them

4. If while reviewing a design accompanying an application for a permit, the chief building official has reason to believe the architects act is being contravened, the matter may be referred to the:

- A. Ontario Association of Architects
- B. Solicitor General
- C. Superior Court of Justice
- D. Building Code Commission

5. Article 2.4.5.3 of the building code requires that when an inspector is called to conduct an inspection for the readiness to construct footings, a site inspection must be undertaken within:

- A. 10 days
- B. 5 days
- C. 2 days
- D. 7 days

6. According to Subsection 2.4.5. of the building code, when dealing with the construction of a motel, a prescribed notice is required for the substantial completion of:

- A. an emergency stop system for a public pool
- B. fire access routes
- C. interior finishes
- D. exterior cladding

7. Which of the following structures must be designed in accordance with Part 4 of the building code?

- A. a pedestrian bridge in a public park located over a creek
- B. an outdoor pool that is structurally supported by a retaining wall, if it is located in the rear yard of a single house
- C. a 3 m high retaining wall supporting a portion of a retail mall's parking lot
- D. a 1 m high retaining wall supporting a portion of a retail mall's parking lot, that is located adjacent to a public park

8. According to the building code, the construction of a two storey supermarket with a building area of 400 m² is governed by Article:

- A. 2.1.1.5.
- B. 2.1.1.4.
- C. 2.1.1.3.
- D. 2.1.1.2.

9. According to Section 2.22. of the building code, when a principal authority enters into agreement with a registered code agency, that agreement may:

- A. NOT contain additional provisions not listed in the code
- B. require that the municipality assist the agency upon request by the agency
- C. contain additional provisions not listed in the code and shall NOT include functions for which the agency is not registered
- D. contain additional provisions not listed in the code

10. Which of the following is NOT a factor in determining the construction index of an existing building to be renovated under the authority of Part 11 of the building code?

- A. the presence of sprinklers
- B. the fire-resistance rating of floor assemblies
- C. the fire-resistance rating of the roof assembly
- D. the type of construction

11. Article 2.19.3.2. of the building code states that to register or renew a registration of a registered code agency, the applicant or registered person must have:

- A. an appropriate number of staff for the anticipated volume of work
- B. a history of acceptable and competent work, business experience and ethics
- C. a valid business licence
- D. insurance required under Subsection 2.21.2. for the term of the registration

12. According to Article 2.22.5.2. of the building code, after a registered code agency issues an Order, the agency must prepare a report containing:

- A. a copy of the order, whom it was issued to, the date and how it was served, how and when the order was complied with
- B. all site inspection reports undertaken by the registered code agency
- C. whatever information is requested by the principal authority
- D. whatever information is requested by the Director

13. Article 2.4.1.1B. of the building code requires that, within specific time frames, the chief building official either must issue a building permit or refuse to issue a permit and provide the reasons why the permit is not being issued.

For a one storey fire station with a building area of 325 m², that time frame is set at:

- A. 15 days
- B. 10 days
- C. 30 days
- D. 20 days

Sample House / Small Building Questions

(Not all Questions Apply to Each Examination - Refer to Syllabi)

14. The minimum required number of water closets for an office having an occupant load of 60 is:

- A. three water closets for each sex
- B. six water closets to serve both sexes
- C. two water closets to serve both sexes
- D. four water closets for each sex

15. Consider a solid, reinforced concrete floor slab required to have a 1.5 h fire-resistance rating and using Type S concrete. According to Section 2.2.1. of SG-2, the minimum concrete cover over the reinforcement in the slab is:

- A. 25 mm
- B. 112 mm
- C. 20 mm
- D. 89 mm

16. According to Article 9.10.3.2. of the building code, and SG-2, what is the assigned flame-spread rating for 11 mm interior grade, unfinished Douglas Fir plywood?

- A. 300
- B. 1.5
- C. 150
- D. 100

17. Part 9 of the building code does NOT apply to which of the following occupancies?

- A. Group E
- B. Group D
- C. Group F, Division 2
- D. Group B, Division 2

18. Sentence 9.10.9.11.(1) of the building code requires a fire separation between a dwelling unit and a business and personal services occupancy to have a fire-resistance rating of not less than 1 h. From Table 8.2 in the Supplementary Guidelines (SG-8), select the construction detail that complies with the required fire-resistance rating and the sound transmission class rating.

- A. F1a
- B. F4a
- C. F5a
- D. F6a

19. According to Sentence 9.20.12.3.(1) of the building code, the allowable projection of 90 mm thick masonry veneer beyond the face of a supporting foundation wall is:

- A. 30 mm
- B. 25 mm
- C. 12 mm
- D. masonry veneers are not permitted to project beyond the supporting foundation wall

20. The unfinished basement of an existing Part 9 dwelling unit is being converted to a 800 m² office suite. The existing building is more than five (5) years old. New fire separations between the old dwelling and the new office are being provided, as well as a new exit leading from the office suite to the exterior.

According to Article 11.5.1.1. of the building code, the minimum permitted headroom clearance below beams that run in any part of the access to exit within this office suite is:

- A. 1 980 mm
- B. 2 000 mm
- C. 2 100 mm
- D. 1 950 mm

21. Floor joists supporting the second storey of a Part 9 clothing store building have a clear span of 3.4 m. The builder has chosen SPF, No. 2 grade lumber for the floor joists.

According to the building code, the minimum depth for the floor joists is:

- A. 38 mm x 184 mm spaced at 600 mm with bridging
- B. 38 mm x 184 mm spaced at 400 mm with strapping and bridging
- C. 38 mm x 184 mm spaced at 400 mm with strapping
- D. the design of the framing must conform to Part 4

22. In Part 9 buildings, wood columns are required to be separated from concrete in contact with the ground. If polyethylene is used, the minimum film thickness is:

- A. 0.05 mm (2 mil)
- B. 0.15 mm (6 mil)
- C. 0.10 mm (4 mil)
- D. polyethylene separators are not permitted

23. For which of the following occupancies can the Tables A-1 and A-2 be used to specify required wood floor joist size, when the occupancy is located on the ground floor of the building?

- A. classrooms without fixed seats
- B. classrooms with fixed seats so that a maximum live load of 50 psf is not exceeded
- C. offices uses
- D. residential suites in a Part 9 apartment building

Sample Large Buildings / Complex Buildings Questions

(Not all Questions Apply to Each Examination - Refer to Syllabi)

24. Consider a 4 storey warehouse building. According to Section 3.8. of the building code, a barrier-free path of travel is NOT required to be provided to:

- A. floor areas above the entrance storey
- B. storage areas
- C. floor areas above the entrance storey that are not served by a passenger type elevator
- D. storeys served by escalators

25. Consider an establishment used primarily for the consumption of alcoholic beverages with limited food service. The occupant load is calculated at 230 persons. According to Article 3.7.4.3. of the building code, the minimum number of water closets for each sex is:

- A. 6
- B. 8
- C. 9
- D. 5

26. Steps for stairs in a five storey office building may NOT be constructed as follows:

- A. 265 mm run, 130 mm rise
- B. 335 mm run, 210 mm rise
- C. 275 mm run, 152 mm rise
- D. 344 mm run, 200 mm rise

27. Consider a ten (10) storey office building divided from a community centre with a 2 hour fire-resistance rated firewall.

The maximum temperature rise on the opaque portion of a door in the firewall is:

- A. 250 °C after 1 h
- B. 250 °C after 30 min
- C. 3 h
- D. doors are not permitted in firewalls

28. According to Part 5 of the building code, in a typical residential building, an exterior wall cladding system is not permitted to allow rain water penetration:

- A. under any circumstances
- B. unless the water can reach the interior space
- C. unless the system is designed to drain and direct the water to the outdoors
- D. unless the occupants are suitably informed of possible adverse health effects

29. According to Subsection 3.11A.2. of the building code, where a set of steps is provided for entry into and egress from a public spa, the steps must be equipped with:

- A. handrails on both sides
- B. a handrail with a height of not less than 900 mm and not more than 1070 mm
- C. a guard
- D. a handrail

30. According to Article 3.1.3.1. of the building code, the minimum fire-resistance rating of a fire separation between a hotel and a care occupancy is:

- A. 1 hour fire-resistance rating
- B. 2 hour fire-resistance rating
- C. no fire-resistance rating is required
- D. a fire separation without a fire-resistance rating

31. Combustible sprinkler piping is permitted to penetrate a vertical or horizontal fire separation:
- A. provided the piping has a diameter not more than 12 mm (1/2 in)
 - B. provided the fire compartments on each side of the fire separation are sprinklered
 - C. under no circumstances
 - D. provided the piping has a diameter not more than 12 mm (1/2 in) and does not contain chlorine gas

32. The occupant load of a shopping centre was calculated at 5 400 persons. The maximum number of urinals that are permitted to be substituted for water closets in the men's public washroom are:
- A. 12 urinals
 - B. 18 urinals
 - C. 9 urinals
 - D. 6 urinals

33. In a Part 3 building, a fire hose is permitted to penetrate an exit to provide the required coverage to:
- A. a group of rooms with an area of 100 m² in an unsprinklered floor area
 - B. a security room in a gaming premise
 - C. a room not more than 50 m² in area
 - D. a roof-top enclosure more than 50 m² in area

34. Consider a refuse chute that discharges into a room. The chute does not have a closure at the chute outlet. According to Part 3 of the building code, the room must be separated from the remainder of the building by a fire separation with a fire-resistance rating of:
- A. not more than 2 h
 - B. not less than 1 h
 - C. not more than 1 h
 - D. not less than 2 h

35. According to Part 3 of the building code, the maximum flame-spread rating for walls and ceilings in a sprinklered vertical service space is:
- A. 75
 - B. 150
 - C. 25
 - D. 300

36. Consider a 6 storey building required to be constructed with noncombustible materials. Subsection 3.1.5. of the building code permits:

- A. exposed foamed plastics, having a flame-spread rating of 25, to be used in the building
- B. wood storage lockers in storage rooms of residential and business and personal services occupancies
- C. combustible stairs within a dwelling unit
- D. thermosetting foamed plastic insulation with a smoke developed classification of not more than 500

37. The interior finish of the bathrooms in a four storey office building must have a flame-spread rating NOT more than:

- A. 200
- B. 150
- C. 25
- D. 75

38. According to Part 3 of the building code, swing-type doors in a fire separation:

- A. must be equipped with a hold open device that is designed to release in the event of a fire
- B. must always be equipped with a positive latching mechanism to hold a door in the closed position after each use
- C. may be equipped with a roller latch when the doors are located in walls separating corridors serving patients' sleeping rooms from adjacent rooms in hospitals
- D. must be equipped with electromagnetic locking devices

39. According to Subsection 3.8.3. of the building code, water closets for persons with physical disabilities must be equipped with:

- A. back support and a seat lid
- B. spring-activated seats
- C. hand-operated or automatically operable flushing controls
- D. seats located between 300 mm and 400 mm above the floor

40. An escalator is proposed between the 3rd and 4th floors of a four storey retail store building. According to the building code, the escalator opening is permitted if the:

- A. escalator is enclosed at each storey with a 1 hr rated fire separation
- B. opening between storeys does not exceed 10 m² in area and the building is sprinklered
- C. opening between storeys does not exceed 10 m² in area
- D. escalator is enclosed at each storey with a non-rated fire separation

41. According to Section 3.7. of the building code, sleeping quarters in a recreational camp with double bunk units shall have an area of not less than:

- A. 3.72 m² per camper
- B. 16.72 m² per two-bed unit
- C. 2.79 m² per camper
- D. 29.73 m² per four-bed unit

42. According to Article 3.10.4.5. of the building code, single storey self-service storage buildings are required to be provided with access routes:

- A. adjacent to at least 50% of the building perimeter
- B. at least 9 m wide
- C. located to provide fire fighters an unobstructed path of travel of not more than 90 m to a hydrant
- D. with a clear width of not less than 5.5 m

43. Consider a public pool where 50% of the pool is deeper than 1 350 mm and the pool water surface area measures 10 m x 35 m. According to Article 3.1.16.3. of the building code, the occupant load of the pool is:

- A. 195
- B. 458
- C. 790
- D. 229

Sample Large Building Advanced Standing Questions

44. Determine the fire-resistance rating of the following concrete filled column:

- 1) HSS 254 x 254 x 8.0
 - 2) Axial compression force of 500 kN
 - 3) $f'_c = 30$ MPa
 - 4) KL of 4 000 mm
 - 5) Type N concrete
- A. 45 min
 - B. 1 h
 - C. no rating
 - D. 2 h

45. According to the building code, a temporary structure constructed of a fabric held up by poles, can be located on the roof of a high building:

- A. if it complies with Section 3.13.
- B. if the fabric conforms with CAN/ULC-S109
- C. if the construction complies with the building code
- D. if it does not contain bleachers

46. In a rapid transit station, the minimum width of a stair in a secondary means of egress is:

- A. 1 200 mm
- B. 1 750 mm
- C. 1 100 mm
- D. 1 500 mm

47. Which of the following uses is NOT permitted in a self-service storage building?

- A. indoor parking of cars
- B. tire storage
- C. a dwelling unit
- D. bulk storage of hazardous substances

48. According to Section 3.8, a barrier-free ramp that has a total rise of 300 mm (i.e., the difference in elevation from the bottom of the ramp to the top of the ramp is 300 mm):

- A. must have a wall or guard on both sides of the ramp
- B. need only be provided with handrails and curbs on both sides of the ramp
- C. need only be provided with curbs on both sides
- D. need only be provided with handrails on both sides of the ramp

49. The slope at the bottom of a public pool shall NOT exceed:

- A. 33% where the water depth is less than 2 000 mm
- B. 8% where the water depth is 1 350 mm or less
- C. no limit applies
- D. 50% where the water depth is more than 1 350 mm

50. In a 4 storey building required to be constructed with noncombustible materials, roof cant strips at the junction of a firewall parapet and the roofing membrane:

- A. are not permitted
- B. are permitted to be combustible, provided that there is a 50 mm concrete roof deck
- C. are not permitted to be of combustible construction
- D. are permitted to be of combustible construction

51. The conversion of an existing Part 9 house to a private school is now complete. Exterior metal sign boxes that are 250 mm in depth, will be mounted on two exterior walls of the building. If the exterior walls are of wood frame construction with brick veneer cladding, plastic sign facing material, conforming to Sentence 3.14.4.1.(1):

- A. is acceptable
- B. shall not exceed 15 m² in area at each storey
- C. shall not exceed 1 200 mm in height at each storey
- D. shall be limited to 30% of the wall area of the storey on which it is installed

52. Portable classrooms:

- A. must be located on a site with a main school building
- B. shall include materials to resist heat transfer
- C. need not comply with the building code
- D. must be electrically heated when of combustible construction

Sample Fire Protection Questions

53. An occupancy with a combustible content of 75 kg/m² of floor area is considered a(n):

- A. unsafe occupancy
- B. medium hazard industrial occupancy
- C. change in major occupancy
- D. low hazard industrial occupancy

54. Consider a building with a required fire access route. According to Part 3 of the building code, the fire access route must have a(n):

- A. centreline radius of not less than 12 m
- B. turnaround facility for any dead-end portion of more than 45 m
- C. clear width of not less than 9 m
- D. overhead clearance of not less than 15 m

55. Which of the following wall finishes is NOT acceptable according to Part 9?

- A. sheet metal protection of foamed plastics, if it is mechanically fastened to loadbearing wood studs independent of the foamed plastics
- B. any thermal barrier protection of foamed plastics that meets the requirements of Clause 3.1.5.11.(2)(e)
- C. hardboard interior finish fastened to wood studs with foamed plastic insulation behind it
- D. aluminum interior finish bonded directly to foamed plastic material

56. According to Part 3 of the building code, only a single stage fire alarm system may be used in:

- A. an elementary school
- B. a Group B, Division 2 hospital
- C. a high building regulated by Subsection 3.2.6.
- D. a hotel serving more than 200 suites

57. According to the building code, a restaurant in a Part 3 building is:

- A. is always considered as a subsidiary occupancy serving the major occupancy in a multi-occupancy building
- B. is always considered as a Group A, Division 2 major occupancy
- C. permitted to be classified as a Group D major occupancy as long as the restaurant serves only the mercantile space associated with it
- D. permitted to be classified as a Group E major occupancy provided it does not accommodate more than 30 patrons

58. According to Articles 3.2.4.6. and 3.2.4.8. of the building code, in a 4 storey building equipped with a single stage fire alarm system, the alarm signal may be silenced automatically after:

- A. 20 minutes
- B. 15 minutes
- C. 5 minutes
- D. 10 minutes

59. Consider a storage garage that will be capable of accommodating 5 vehicles. According to Part 9, the storage garage:

- A. shall be separated from an attached dwelling unit by a fire separation having a fire-resistance rating of 1 h
- B. shall be separated from an apartment building by a fire separation having a fire-resistance rating of 1.5 h
- C. shall be separated from an apartment building by a fire separation having a fire-resistance rating of 1 h
- D. shall be separated from an attached dwelling unit by a fire separation

60. A one storey building, with a building area of 1 550 m² is intended to be used as an arena with the occasional trade show or exhibition.

According to Part 3 of the building code, the building:

- A. is not permitted
- B. must be constructed of noncombustible construction
- C. must be sprinklered
- D. must provide a 45 min fire-resistance rating to noncombustible roof assemblies

61. The top storey of a hospital contains patients bedrooms and is more than 18 m above grade. According to Articles 3.2.7.8. and 3.2.6.1 of the building code, the emergency power supply for the fire alarm system must be capable of providing supervisory power for 24 hours followed by full load operation for:

- A. 1 h
- B. 2 h
- C. 24 h
- D. 30 min

62. An elementary school with an occupant load of 50 is provided with a fire alarm system. Under the building code, the following areas do NOT require fire detectors:

- A. elevator shafts
- B. change rooms
- C. janitor's rooms
- D. classrooms

63. Alternate floor emergency recall operation for elevators is NOT required if the:

- A. floor area containing the recall level is sprinklered
- B. recall level has heat detectors installed in the elevator lobby
- C. storeys below the recall level are sprinklered
- D. recall level has smoke detectors installed in the elevator lobby

64. Where measure M in Section 2 of SG-3 is applied, a manually operated switch at the central alarm and control facility shall be provided, that is capable of stopping:

- A. fresh air distribution fans serving more than two storeys
- B. all fans in a residential building
- C. exhaust fans in kitchens located in dwelling units
- D. washroom exhaust fans in dwelling units

65. According to the building code, a portable classroom must:

- A. have interior finishes with a flame-spread rating of not more than 200
- B. comply with the barrier-free access requirements of Section 3.8.
- C. be equipped with washroom facilities independent of those provided in the main school building
- D. contain a fire extinguisher

66. A commercial high rise building is served by an HVAC system comprised of centralized air handling equipment with each air handling unit serving multiple floors. According to Subsection 3.2.4., the minimum requirement to control smoke circulation is:
- A. duct type smoke detectors must be installed
 - B. dedicated smoke exhaust fans must be provided for every floor
 - C. multiple fire compartments must be provided on every floor
 - D. multiple smoke compartments must be provided on every floor

Sample Fire Protection Advanced Standing Questions

67. An old Part 3 building has been designated as a heritage building and is being converted to a business and personal services use. Inspection of the structure indicates that original doors serving as required exit doors are made of bevelled, etched glass. Under Part 11, these doors:
- A. should be tested for conformance with the requirements of CAN/CGSB-12.1-M
 - B. would have to be replaced since they do not comply with Part 3
 - C. may be considered as acceptable by the chief building official because of the heritage nature of the building
 - D. must be made apparent by attaching non-transparent hardware, bars or other permanent fixtures

68. Consider a one storey building with multiple major occupancies. The building will be over 6,000 m² in building area. Allowances to have mezzanines installed within several of the proposed tenancy spaces has been accounted for by the Architect. You are the plans examiner. If the zoning by-law permits any combination of retail, industrial or professional office use in this building, what would you base the classification of this building on?
- A. the major occupancy of the entire building shall be based on the occupancy having the greatest area
 - B. the construction requirements for each major occupancy shall apply to that portion of the building occupied by that occupancy
 - C. each major occupancy must be separated by a firewall with the required fire-resistance rating based on the type of occupancy
 - D. the major occupancy of the entire building shall be based on the most restrictive major occupancy

69. For a 70 m high hotel, the designers have elected to provide areas of refuge to meet the requirements of the code pertaining to limits to smoke movement in floor areas. For this building the Code requires areas of refuge at what frequency?

- A. above the first storey
- B. every storey
- C. every fifth storey
- D. top and middle storey

70. Single storey self-service storage buildings are required to be provided with access routes:

- A. that are 9 m wide and located so that the closest portion of the access route is not less than 3 m and not more than 15 m from the principal entrance into the building
- B. that are 6 m in unobstructed width and have an overhead clearance of not less than 5 m
- C. that are 9 m wide and have an overhead clearance of not less than 5 m
- D. that are 9 m wide and located so that a clear width of not less than 6 m is maintained in the access route

71. For which spaces does the building code refer to the provisions of the Ontario Fire Code?

- A. where the systems are connected to fire alarm system
- B. when systems serve a small bakery
- C. when system serve laboratories using non hazardous substances
- D. when systems serve automotive spray painting booths

72. Using SG-2, determine the minimum thickness of Type X gypsum wallboard protection required for a W360x51 steel column that is required to have a fire-resistance rating of not less than 2 h. (beam dimensions: $b=171$ mm, $d=355$ mm, $mass=50.6$ kg/m)

- A. 31.8 mm
- B. 28.6 mm
- C. 38.1 mm
- D. 41.3 mm

73. Where measure C, E, G or J is applied to a high building, it is assumed that:

- A. occupants of all floors will move immediately into the stair shafts and will then proceed slowly to the outdoors following an announcement from the first fire department officer on the scene or other person assigned this responsibility
- B. occupants of all floors will move immediately into the stair shaft and will then proceed slowly to the outdoors following the sounding of a general fire alarm
- C. occupants of all floors above the fire floor will move immediately into the stair shaft and will then proceed slowly to the outdoors following the sounding of a general fire alarm
- D. occupants of all floors below the fire floor will move immediately into the stair shaft and will then proceed slowly to the outdoors following the sounding of a general fire alarm

74. Four (4) portable classrooms are proposed on a site that has an existing school. There are no other buildings located on the site. The 4 portable classrooms will be arranged in a group so that the means of egress for each classroom is by a common corridor. According to the building code:

- A. the unobstructed path of travel for a fire fighter from the fire department vehicle to these portables shall not exceed 45 m
- B. the portable classrooms are not required to face a street
- C. an adequate water supply for fire fighting shall be provided for these portable classrooms
- D. an access route shall be provided for fire department use to these portable classrooms

75. A 500 m² tent shall be provided with:

- A. access routes for the purpose of fire fighting
- B. access routes for fire fighting to the principal entrance of the tent and each side wall having access opening for fire fighting
- C. access routes for fire fighting required by Article 3.2.5.1. and 3.2.5.2.
- D. access routes for fire fighting to the principal entrance of the tent

Sample Building Structural Questions

76. According to Part 4, if a concrete column supports a live load of 100 kN and a dead load of 150 kN, what is the factored column design load?

- A. 337.5 kN
- B. 350 kN
- C. 250 kN
- D. 375 kN

77. According to Article 3.7.4.14. of the building code, what is the minimum design load for grab bars in a restaurant washroom?

- A. 1.3 kN applied vertically or horizontally, considered separately
- B. 1.3 kN applied vertically, only
- C. 1.5 kN/m applied vertically, only
- D. 1.3 kN applied vertically and horizontally, considered together

78. Considering both Sentences 2.5.1.1.(1) and 4.1.6.3.(1), what is the minimum specified live load for the roof of a theatre building in Windsor?

- A. 1.10 kPa
- B. 0.96 kPa
- C. 1.00 kPa
- D. 0.75 kPa

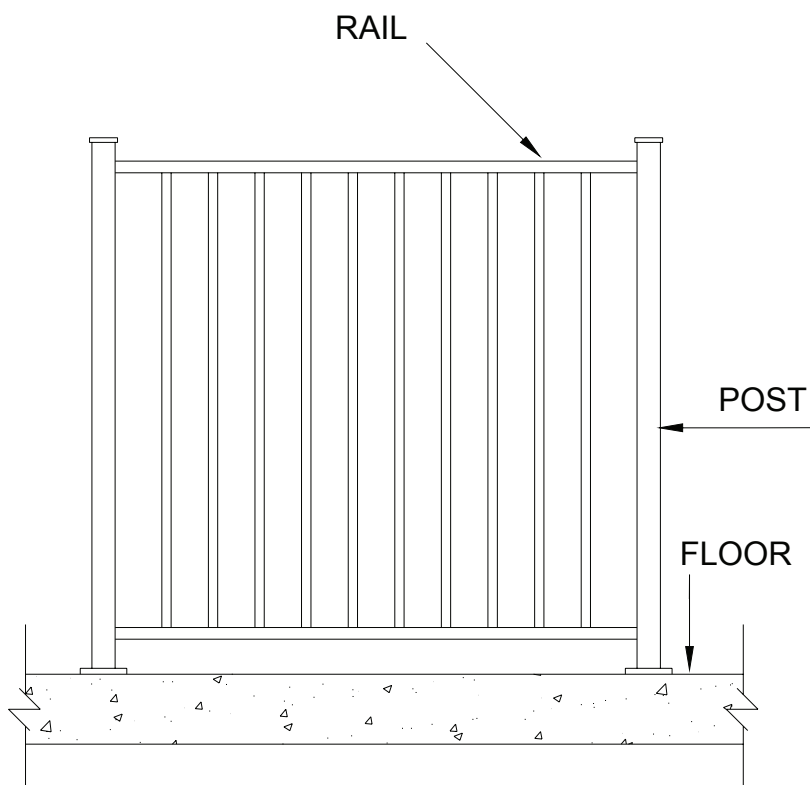
79. A 14 000 ft² single family dwelling unit must be designed to have sufficient structural capacity and structural integrity to resist:

- A. live loads due to use and occupancy and dead loads due to use and occupancy as specified in Part 9
- B. live loads due to use and occupancy, dead loads, snow loads and wind loads
- C. live loads due to use and occupancy, dead loads, snow loads, wind loads and live loads due to earthquakes
- D. live loads due to use and occupancy, dead loads and snow loads

80. It is expected that the 4th floor of a 5 storey building may accommodate a warehouse, a factory, or a wholesale space. What minimum live load must be used in designing the 4th floor?

- A. 9.0 kN/m²
- B. 6.0 kN/m²
- C. 4.8 kN/m²
- D. 3.6 kN/m²

81. Consider Subsection 4.1.10. of the building code and the following sketch. A vehicle guardrail is supported by a post at each end that is anchored to the floor as shown. When designing the post, the minimum outwards horizontal specified force would be:



- A. 0.5 kN
- B. 22 kN
- C. 11 kN
- D. 1.0 kN

82. Which of the following are not required to be considered in the design of a footing using Subsection 4.2.4. of the building code?

- A. radon gas
- B. dynamic loading
- C. hydrostatic uplift
- D. permafrost

83. Which of the following is NOT generally considered to be a post-disaster building for the purposes of earthquake design, under Subsection 4.1.9. of the building code?

- A. newspaper publishers
- B. fuel depots
- C. radio stations
- D. police stations

84. With reference to Sentence 4.1.7.1.(7). of the building code, what is the accumulation factor, C_a , for a large flat roof with a characteristic length of 180 m, when the wind exposure factor, C_w , is 0.75?

- A. 0.53
- B. 1.00
- C. 0.89
- D. 1.17

85. Consider a post-disaster building located in Collingwood. The minimum wind reference velocity pressure used to calculate structural member strength is:

- A. 1.00 kPa
- B. 0.45 kPa
- C. 0.34 kPa
- D. 0.25 kPa

86. According to Part 4, the minimum weight allowance for non-permanent partitions is:

- A. 2.4 kPa
- B. 1.4 kPa
- C. 1.0 kPa
- D. 0.5 kPa

87. Brockville is in velocity related seismic zone:

- A. 1
- B. 0.05
- C. 20
- D. 3

88. Calculate the live load due to snow on a roof of a single family dwelling unit, that is subject to the requirements of Part 3 and Part 4. Use the following information for your calculation:

- 1) the building is located in Ajax
- 2) roof slope is 45° , unobstructed and slippery
- 3) $C_a = 1.0$
- 4) $C_w = 0.5$

- A. 0.720 kPa
- B. 0.240 kPa
- C. 0.450 kPa
- D. 1.000 kPa

89. According to Article 4.1.1.5 of the building code, what is the allowable inter-storey drift for a Part 3 office building under specified wind and gravity loadings?

- A. 1/500
- B. 1/800
- C. 1/240
- D. 1/360

90. Consider a two-storey house in London. The roof is 4.2 m wide by 10.0 m long and is framed with members spaced at 600 mm on center.

According to Section 9.4. of the building code, the minimum unfactored design roof live load is:

- A. 1.25 kPa
- B. 1.00 kPa
- C. 1.42 kPa
- D. 1.76 kPa

91. Consider a horse barn on a farm. According to Section 9.3. of the building code, ungraded lumber may NOT be used for:

- A. posts
- B. wall studs
- C. piles
- D. beams

92. The minimum size of a wood column, used to support an 89 mm wide lintel in a one storey, 50 m² garage, shall be NOT less than:
- A. 140 mm by 140 mm
 - B. 184 mm in diameter
 - C. 89 mm by 140 mm
 - D. 89 mm by 89 mm

Sample HVAC - House / Building Services Questions

(Not all Questions Apply to Each Examination - Refer to Syllabi)

93. Consider a single dwelling unit regulated by Article 9.32.3.3. The dwelling unit has 3 bedrooms, 1 kitchen, 1 living room, 1 dining room, 2 bathrooms and 1 laundry room.

What is the minimum required total ventilation capacity?

- A. 45 L/s
- B. 50 L/s
- C. 40 L/s
- D. 35 L/s

94. The minimum required indoor design temperature for a residential building located in Goderich is:

- A. 15°C
- B. 23°C
- C. 21°C
- D. 22°C

95. Where the plenum clearance of a house furnace is less than 75 mm, the clearance between a supply duct and combustible material is required to be:

- A. more than the required plenum clearance within 450 mm of the plenum
- B. equal to the required plenum clearance within 450 mm of the plenum
- C. not less than 12 mm regardless of the distance from the plenum
- D. not less than 25 mm within 450 mm of the plenum

96. Audible signal devices forming part of a fire alarm system shall be installed so that alert signals and alarm signals:

- A. have a sound pressure level not less than 10 dBA above the ambient noise level
- B. have a sound pressure level not less 75 dBA in all occupancies
- C. are clearly audible throughout the zone in which they are installed
- D. are clearly audible throughout the floor area in which they are installed

97. Which material is NOT acceptable for rungs on access ladders for chimneys?

- A. aluminium
- B. bronze
- C. stainless steel
- D. steel

98. Which one of the following buildings does NOT require the installation of a fire alarm system?

- A. a care occupancy for 10 persons receiving care
- B. a care and treatment occupancy for 25 patients/residents
- C. a licensed beverage establishment with occupant load of 200
- D. a residential occupancy with sleeping accommodation for 20 persons

99. Consider an opening in a fire separation that is required to be protected by a closure. What is the maximum dimension in the horizontal or vertical if only one side of the separation is sprinklered?

- A. 6 m
- B. 3.7 m
- C. 11 m²
- D. 22 m²

100. Which of the following is NOT an acceptable way of venting smoke where the floor area is sprinklered?

- A. smoke shafts
- B. fixed glass windows
- C. building exhaust system
- D. operable windows

101. In a two storey Group B occupancy building renovation project, access into the building is through a newly created vestibule, which will be located on the existing side of an enclosed storage garage. According to the building code, the vestibule must:

- A. limit the concentration of carbon monoxide to not more than 100 parts per million of air, when measured at the floor level
- B. be ventilated mechanically at a rate of 14 m³/h for each square metre of the vestibule floor surface area
- C. be ventilated mechanically in accordance with the ASHRAE 62 Standard
- D. be ventilated mechanically at a rate of 3.9 L/s for each square metre of the vestibule floor surface area

102. Consider an office tower with a washroom that contains 2 water closets, 2 urinals and 2 showers. The minimum mechanical exhaust ventilation required for the washroom is:

- A. 144 L/s
- B. 96 L/s
- C. 120 L/s
- D. 132 L/s

Sample Detection Lighting and Power Questions

103. According to the building code, which item is NOT permitted in computer room floors of a building required to be of noncombustible construction?

- A. computer data cables
- B. electrical transformers and main equipment control panel
- C. optical fibre cables
- D. electrical wires

104. Hold-open devices on doors located between a corridor used by the public and adjacent sleeping rooms in hospitals shall be designed to release the door:

- A. upon a signal from the fire alarm alert signal within the same fire compartment
- B. upon a signal from a smoke detector, and the fire alarm alert signal
- C. upon a signal from a heat-actuated device
- D. upon a signal from a smoke detector located as described in Appendix B or NFPA 80

105. Air handling systems serving more than one suite in a storey shall be designed to prevent the circulation of smoke:

- A. when a sprinkler system is installed in the building
- B. when a fire alarm system is required for the building
- C. when a sprinkler system is required for the building
- D. when a fire alarm system is installed in the building

106. Emergency telephones in a building having the floor level of its top storey 18 m above grade:

- A. shall be capable of 2-way communication with the central alarm and control facility in the building
- B. shall be located in a red colored emergency use type cabinet
- C. must be located in each floor area near exit stair shafts
- D. need not be provided

107. A 5 storey high, open air parking garage shall be illuminated to a minimum illumination level of:

- A. illumination is not required for an open air parking garage
- B. 10 lx
- C. 50 lx
- D. 5 lx

108. Consider a proposed school for the blind, in which all occupants of the school are blind. Directional exit signs:

- A. need not be provided
- B. need not be illuminated
- C. shall be provided to indicate the direction of egress in complex passageways
- D. need not be provided with emergency power

109. A fire alarm system is required in a self-service storage building:

- A. that is two storeys in building height
- B. that is one storey in building height
- C. that contains a spray booth
- D. that is one storey in building height and contains a dwelling unit

110. According to Part 9:

- A. insulated electrical wires with an overall diameter of 25 mm are permitted to penetrate an assembly required to have a fire-resistance rating
- B. optical fibre cables are permitted to penetrate a fire separation required to have a fire-resistance rating
- C. electrical wires shall be located in totally enclosed noncombustible raceways when penetrating an assembly required to have a fire-resistance rating
- D. sheathed electrical wires are permitted to penetrate an assembly required to have a fire-resistance rating

111. According to Part 9, every stairway:

- A. shall be lighted with energy efficient lighting only
- B. shall be lighted if electrical services are available
- C. shall be lighted
- D. shall have 3-way wall switches controlling lighting

Sample Plumbing - House / Plumbing - All Buildings

(Not all Questions Apply to Each Examination - Refer to Syllabi)

112. Where two washbasins are used to wet vent a shower drain, the fixture drains must connect to a vertical waste pipe at the same level with:

- A. a double fitting
- B. a double cross fitting
- C. a double T fitting
- D. a double Y fitting

113. If gravity drainage to a sanitary drainage system is NOT possible, a basement forming part of a dwelling unit:

- A. must connect a required floor drain to a private sewage disposal system
- B. must connect required floors drain to a tank(s) equipped with ejectors
- C. may connect a required floor drain to a storm drainage system
- D. is not required to be provided with a floor drain

114. In a dwelling unit, a shut-off valve is required to be provided on the water supply to every:

- A. fixture
- B. water closet
- C. washbasin
- D. riser

115. What is the maximum spacing of supports for a nominally horizontal "PVC" plastic DWV pipe?

- A. 2 000 mm
- B. 1 000 mm
- C. 2 500 mm
- D. 1 200 mm

116. An 8 inch size, sanitary building sewer has a change in direction of greater than 45 degrees. If the sanitary building sewer has a total developed length of 30 m, where must manhole(s) be provided?

- A. a manhole is not required
- B. at the point where the change of direction is greater than 45 degrees
- C. at the property line where the building sewer ends
- D. a manhole shall be provided so that the developed length of the building sewer is 30 m from the building

117. According to the building code, what is the maximum number of water closet vents that, may be connected to a 1-1/2 in branch vent?

- A. 10
- B. 6
- C. 1
- D. 2

118. Where a potable water system serves a dry sprinkler fire protection system, the fire protection system:

- A. shall be isolated from the potable water system by a listed alarm check valve
- B. shall be isolated from the potable water system by a resilient seated check valve
- C. shall be isolated from the potable water system by a backflow preventer
- D. is not required to be isolated from the potable water system

119. A horizontal branch off a stack may be circuit vented where:

- A. the circuit vented branch is at least 3" in size
- B. the number of circuit vented water closets is 2
- C. a relief vent is also provided
- D. the maximum number of circuit vented fixtures is 7

120. According to the building code:

- A. floor drains in a parking lot must be provided with oil interceptors
- B. a floor drain within an hydraulic elevator pit must discharge through an oil interceptor
- C. a floor drain is not required within the pit of an hydraulic elevator
- D. a floor drain within a car wash must discharge through an oil interceptor

121. In a washroom for public use, washbasins in a female washroom shall:

- A. be provided with shut-off valves installed on the water supply to the fixture(s)
- B. not be visible from the entrance to the room in all cases
- C. be barrier-free accessible in all cases
- D. be equal to the number of required water closets in the washroom

122. Every oil interceptor shall be provided with two vent pipes. Which of the following statements pertaining to venting requirements is NOT correct?

- A. connect to the interceptor at opposite ends
- B. do not connect to any other vent pipe
- C. connect to each other
- D. extend to open air

123. In a restaurant, urinals are permitted in lieu of water closets, provided the number of urinals is not more than:

- A. one fifth of required number of water closets
- B. half of the required number of water closets
- C. two thirds of the required number of water closets
- D. one third of the required number of water closets

124. Where back vents, relief vents or circuit vents are installed, a vent stack is required in:

- A. all buildings other than a residential building
- B. every 4 storey residential building
- C. conjunction with every soil stack provided in a building
- D. every single storey industrial building

125. The clearance beneath a barrier-free lavatory shall be:

- A. 760 mm wide and 735 mm high at the front edge
- B. 685 mm wide and 735 mm high at the front edge
- C. 460 mm wide and 735 mm high at the front edge
- D. 760 mm wide and 230 mm high

126. Which of the following groups of fixtures may be protected by one trap?

- A. 4 separate floor drains located in a food preparation room
- B. 6 separate shower drains in the same room
- C. 3 separate sinks located in the same room
- D. 5 separate laboratory sinks located in different rooms within a large laboratory

127. According to the building code, a drainage pipe serving a drinking fountain:

- A. must be directly connected to a sanitary drainage system
- B. may be indirectly connected to a sanitary drainage system
- C. shall have a diameter not less than 1-1/2 inches
- D. shall be trapped

end of sample exam

Answers to Sample Examination, June, 2006

No.	Code/Act Reference 1	Code/Act Reference 2	Answer
General, CBO and RCA Legal Questions			
1	BCA-14(3)		A
2	BCA 13(6)		C
3	BCA-15.11(7)		D
4	BCA 8(9)		A
5	OBC 2.4.5.3.(2)		C
6	OBC 2.4.5.1.(2)(G)		B
7	OBC 2.1.2.1.(1)		C
8	OBC 2.1.1.2.		C
9	OBC 2.22.1.1.(2)		C
10	OBC 11.2.1.1.(1)(A)	TABLE 11.2.1.1.A.	A
11	OBC 2.19.3.2.(1)(E)		D
12	OBC 2.22.5.2.(5)		A
13	OBC 2.4.1.1B.(1)		C
House / Small Building Questions			
14	OBC 9.31.1.1.(2)	3.7.4., 3.7.4.7.(1)	A
15	SG-2	2.2.1.(2)	C
16	OBC 9.10.3.2.(1)	SG-2, 3.1.1.	C
17	OBC 2.1.1.3.(1)		D
18	OBC 9.11.2.1.(1)	SG-8,T8.2	C
19	OBC 9.20.12.3.(1)		B
20	OBC 9.9.3.4.(1)	DE 93	D
21	OBC 9.23.1.1.(4)		D
22	OBC 9.17.4.3.(1)		A
23	OBC 9.23.1.1.(2)	TABLE 4.1.6.3.	D
Large Building / Complex Building Questions			
24	OBC 3.8.2.1.		C
25	OBC 3.7.4.3.(5)	TABLE 3.7.4.3.E.	A
26	OBC 3.4.6.7.(1), (2)	3.3.1.13.(1)	B
27	OBC 3.1.8.4.(2)	3.1.8.15.(1)	B
28	OBC 5.6.1.1.		C
29	OBC 3.11A.2.		D
30	OBC 3.1.3.1.(1)		B
31	OBC 3.1.9.4.(1)		B
32	OBC 3.7.4.2.(3) & (2)	3.7.4.8.(2)	D
33	OBC 3.2.9.4.(7)		C
34	OBC 3.6.3.3.(9)		D
35	OBC 3.1.13.2.		C
36	OBC 3.1.5.9.		C
37	OBC 3.1.13.1.(1)	3.1.13.3.(1)	B
38	OBC 3.1.8.13.(1)	3.3.3.5.(12)	C
39	OBC 3.8.3.9.		C
40	OBC 3.2.8.2.(5)	3.2.2.	B
41	OBC 3.7.1.4.(1)		C
42	OBC 3.10.4.5.		B
43	OBC 3.1.16.3.		A
Large Building Advanced Standing Questions			
44	OBC SG-2, 2.6.6.	SG-2, 2.6.6.(f)	C
45	OBC 3.13.1.1.(1)	A-3.13.	C
46	OBC 3.12.4.5.(5)		C
47	OBC 3.10.2.1.(1)	3.1.3.2.(2)	D
48	OBC 3.8.3.4.(1)(f)		A
49	OBC 3.11.3.1.(6)		B
50	OBC 3.1.5.3.(3)		D
51	OBC 3.14.4.1.(3)		A
52	OBC 3.9.1.1.(1)	5.3.1.1.(1)	B
Fire Protection Questions			
53	OBC 9.10.2.1.(1)	1.1.3.2.(1)	B
54	OBC 3.2.5.6.		A
55	OBC 9.10.17.6.(1)		D
56	OBC 3.2.4.3.(1)		A
57	OBC 3.1.2.6.(1)		D
58	OBC 3.2.4.6.(1)	3.2.4.8.(5)	A
59	OBC 9.10.9.16.(2)		C
60	OBC 3.1.2.3.(1) & (2)		C
61	OBC 3.2.7.8.(3)	3.2.6.1.(1)	B
62	OBC 3.2.4.10.(2)	3.2.4.1.(2)	D
63	OBC 3.2.4.14.(3)		A
64	OBC 3.2.6.6.(1)	SG-3	A
65	OBC 3.9.3.5.	3.9.3.9.	D
66	OBC 3.2.4.12.(1)		A

Answers to Sample Examination, June, 2006

No.	Code/Act Reference 1	Code/Act Reference 2	Answer
Fire Protection Advanced Standing Questions			
67	OBC 11.5.1.1.	D32 & D36	C
68	OBC 3.2.2.6.(1)	3.2.2.7.(1)	D
69	OBC 3.2.6.3.(2)		C
70	OBC 3.10.4.5.		C
71	OBC 6.2.2.5.(1)		D
72	OBC 9.10.3.1.(1)	SG-2, TABLE 2.6.1.	D
73	OBC 3.2.6.	SG-3, Section 1	B
74	OBC 3.9.3.4.(1)(e)		B
75	OBC 3.13.1.10.(1)		A
Building Structural Questions			
76	OBC 4.1.3.2.(4)		A
77	OBC 3.7.4.14.(1)		A
78	OBC 4.1.6.3.(1)	4.1.7.1.(1)	C
79	OBC 4.1.1.3.(1)	2.1.1.2.(1)	C
80	OBC 4.1.6.8.(1)	4.1.6.3.(1)	B
81	OBC 4.1.10.2.(1)		B
82	OBC 4.2.4.6.(1)	4.2.4.11.(1)	A
83	OBC 4.1.9.1.(10)	1.1.3.2.(1)	A
84	OBC 4.1.7.1.(7)		B
85	OBC 4.1.8.1.(4)(d)	2.5.1.1.(1)	B
86	OBC 4.1.5.1.(3)		C
87	OBC 4.1.9.1.(1)	2.5.1.1.(1)	A
88	OBC 4.1.7.1.(1)	TABLE 2.5.1.1.	C
89	OBC 4.1.1.5.(4)		A
90	OBC 9.4.2.2.(2)	2.5.1.1.(1)	A
91	OBC 9.40.2.2.(1)		C
92	OBC 9.35.4.2.(1)		D
HVAC House / Building Services Questions			
93	OBC 9.32.3.3.(1)		B
94	OBC 9.33.3.1.(1)		D
95	OBC 6.2.4.10.(1-3)		B
96	OBC 3.2.4.19.(1)		D
97	OBC 6.3.1.5.(1)		A
98	OBC 3.2.4.1.(2)		A
99	OBC 3.1.8.6.(1)		B
100	OBC 3.2.6.10.(3)		B
101	OBC 3.3.5.7.(3)(b)(ii)		B
102	OBC 6.2.3.9.(13)(14)		A
Detection Lighting and Power Questions			
103	OBC 3.1.5.20.(1)		B
104	OBC 3.1.8.12.(5)		B
105	OBC 3.2.4.12.(1)		D
106	OBC 3.2.6.13.(1)	3.2.4.22.(5)	D
107	OBC 3.2.7.1.(2)	9.34.2.7.	C
108	OBC 3.4.5.1.(5)		C
109	OBC 3.10.3.3.(2)	3.10.4.4.(1)	A
110	OBC 9.10.9.6.(4)		A
111	OBC 9.34.2.3.(1)		B
Plumbing Questions			
112	OBC 7.5.7.1.(2)		D
113	OBC 7.1.5.2.(2)		C
114	OBC 7.6.1.5.(1)		B
115	OBC 7.3.4.5.(2)		D
116	OBC 7.4.7.1.(4) (5)	7.4.7.2.	B
117	OBC 7.5.7.2. (1)		D
118	OBC 7.6.2.3.(4)		D
119	OBC 7.5.2.2.(1)		A
120	OBC 7.4.4.3.(3)		C
121	OBC 7.6.1.7.(1)		A
122	OBC 7.5.4.2.(1)		C
123	OBC 3.7.4.2.(3)		C
124	OBC 7.5.3.2.(1)		B
125	OBC 3.8.3.11.(1)		A
126	OBC 7.4.5.1.(3)		B
127	OBC 7.4.2.1.(1)		B