



MIDTERM EXAM IN CCT 111: NATIONAL BUILDING CODE

GENERAL INSTRUCTIONS:

1. Read the instructions carefully before answering.
2. **SHADE** your best choice of answer in the given **ANSWER SHEET**.
3. **CHEATING** is **STRICTLY PROHIBITED!**
4. If you have clarification and confusions, **ASK** your proctor, not your classmates.

TEST I – MULTIPLE CHOICE

INSTRUCTION: Choose the correct letter of your answer.

1. What is the full title of the NBCP?
 - a. National Building Commission of the Philippines
 - b. National Building Code of the Philippines
 - c. National Construction Code of the Philippines
 - d. National Development Code of the Philippines
2. In what year was the National Building Code of the Philippines (Presidential Decree No. 1096) enacted?
 - a. 1972
 - b. 1974
 - c. 1977
 - d. 1980
3. Who is the government official responsible for the enforcement of the Building Code in a municipality or city?
 - a. City Mayor
 - b. Municipal Engineer
 - c. Building Official
 - d. Barangay Captain
4. What is the main purpose of the National Building Code?
 - a. To regulate building materials' prices
 - b. To ensure public safety, health, and welfare in buildings
 - c. To design architectural styles
 - d. To promote business in construction
5. Which document must be secured before any construction, addition, alteration, or repair of a building?
 - a. Occupancy Permit
 - b. Zoning Clearance
6. What type of permit is required before a completed building or structure can be used or occupied?
 - a. Building Permit
 - b. Fire Safety Permit
 - c. Electrical Permit
 - d. Certificate of Occupancy
7. Under NBCP, how many fire exits are required for buildings depending on occupancy load and design?
 - a. At least 1
 - b. At least 2
 - c. At least 3
 - d. At least 4
8. The National Building Code is also known as what Presidential Decree (PD)?
 - a. PD 957
 - b. PD 1096
 - c. PD 1185
 - d. PD 856
9. Which government department supervises and prescribes the rules and regulations of the NBCP?
 - a. Department of Environment and Natural Resources (DENR)
 - b. Department of Labor and Employment (DOLE)
 - c. Department of Public Works and Highways (DPWH)
 - d. Department of Human Settlements and Urban Development (DHSUD)

10. What is the term for the minimum distance required between a building and the property line?
- Lot coverage
 - Floor area ratio
 - Setback
 - Easement
11. Why were the Implementing Rules and Regulations (IRR) of the National Building Code amended?
- To lower construction costs
 - To update provisions in line with safety, technology, and environmental needs
 - To make building design uniform
 - To promote foreign contractors only
12. The amended IRR clarifies the roles of the Building Official. Why is this important?
- To allow contractors to skip inspections
 - To ensure accountability and proper enforcement of building standards
 - To eliminate local government involvement
 - To reduce paperwork
13. Why is zoning clearance required before issuing a building permit under the amended IRR?
- To confirm the building design matches the architectural style
 - To ensure the building location complies with land use and zoning ordinances
 - To reduce construction time
 - To avoid duplication of documents
14. The amended IRR requires fire safety evaluation before granting occupancy permits. What is the purpose of this rule?
- To promote fire extinguisher sales
 - To ensure the building is safe for use and minimize fire risks
 - To lessen construction expenses
 - To regulate firefighting agencies
15. Under the amended IRR, what is the importance of requiring environmental compliance documents in some projects?
- To support eco-tourism
 - To prevent environmental damage and promote sustainable construction
 - To increase project costs
 - To add more permits unnecessarily
16. The amended IRR specifies setback requirements. What is the main reason for setbacks in urban construction?
- To leave extra space for future construction
 - To provide light, ventilation, and access, and enhance safety
 - To make buildings look more aesthetic
 - To reduce property values
17. Why are there stricter rules for high-rise buildings under the amended IRR?
- Because they are more expensive
 - Because they pose higher risks in terms of safety, fire protection, and structural stability
 - Because they are only built in cities
 - Because they require foreign expertise
18. In the amended IRR, what is the purpose of requiring special permits for temporary structures like tents or kiosks?
- To allow easier dismantling of structures
 - To ensure even temporary structures do not compromise safety and welfare
 - To promote small businesses
 - To collect additional taxes
19. Why does the amended IRR include stricter provisions for accessibility?
- To comply with international design standards
 - To ensure inclusivity, providing safe access for persons with disabilities (PWDs)
 - To reduce construction materials
 - To limit building sizes
20. The amended IRR emphasizes coordination between the Building Official and other agencies like the Fire Bureau and DENR. What does this coordination ensure?
- Faster building approvals only
 - Proper integration of safety, environmental, and zoning requirements
 - Avoidance of contractors' responsibility
 - Elimination of local government
21. A building owner wants to connect his new house's wastewater directly to a storm drainage system. As a plumber, what should you advise?
- Allow it since the pipe sizes are compatible
 - Permit it if the drain slope is correct

- c. Prohibit it because wastewater must not mix with stormwater
d. Allow it only for small houses
22. A restaurant is installing multiple sinks. The owner suggests connecting all sinks directly to the sewer line without traps. What should be applied according to the Plumbing Code?
a. Install traps to prevent foul odors from entering the building
b. No traps are needed in commercial kitchens
c. Use bigger pipes instead of traps
d. Connect them to the storm drainage system
23. During inspection, you find that the vent pipes in a high-rise building are undersized compared to the Plumbing Code standards. What must be done?
a. Allow it since vents are not critical
b. Require correction to ensure proper air circulation and prevent siphonage
c. Cover the vent outlets to avoid insects
d. Install more water closets instead
24. A school building needs drinking water lines installed. According to the Plumbing Code, what type of water source connection should be applied?
a. Directly connect to sewer for convenience
b. Connect to a safe and potable water supply line
c. Use water tanks filled with stormwater
d. Use any available source as long as it flows
25. A plumber is asked to install a water closet without a trap. Based on the Plumbing Code, what should he do?
a. Refuse and explain that all water closets must have integral traps
b. Accept but increase water pressure
c. Install vent pipes instead of traps
d. Use larger sewer pipes to compensate
26. A hospital project requires hot and cold water supply. What does the Plumbing Code require in such a case?
a. Only cold water supply is needed
b. Both hot and cold water supply should be installed in hospitals
- c. Only hot water is required
d. No plumbing is required in hospitals
27. A client asks why cleanouts must be installed in the sanitary drainage system. What should you explain?
a. They are optional and only for large pipes
b. They are installed to allow cleaning and maintenance of the system
c. They are only for industrial buildings
d. They are to increase water pressure
28. A residential house has its septic tank located too close to the water supply line. What problem might arise if this rule is ignored?
a. Faster flow of wastewater
b. Possible contamination of potable water supply
c. Increase in water pressure
d. Easier maintenance of the tank
29. In designing the plumbing system of a high-rise condominium, what principle should be applied to maintain water supply at upper floors?
a. Install water pumps and storage tanks to maintain adequate pressure
b. Use only gravity supply from ground level
c. Reduce the number of fixtures on upper floors
d. Connect upper floors directly to sewer
30. A building's sanitary system has multiple fixtures installed. According to the Plumbing Code, how should load be determined?
a. Based on the size of the water meter only
b. Using fixture unit values assigned by the Code to each plumbing fixture
c. By estimating water use monthly
d. By adding pipe lengths only
31. A residential house has wastewater from the kitchen and laundry connected to the storm drainage system. After inspection, foul odors and flooding occur during rains. Which Code violation caused this problem?
a. Use of undersized pipes
b. Lack of grease trap
c. Mixing of sanitary and stormwater drainage
d. No vent installation
32. During inspection of a commercial building, it is observed that traps are installed but

- not vented. What problem could this lead to?
- Increased water pressure in the supply lines
 - Siphonage of traps causing sewer gases to enter rooms
 - Faster drainage flow
 - Easier maintenance of drains
33. A septic tank is constructed only 1 meter away from a deep well. Water tests later show contamination. Which principle was violated?
- Proper spacing between septic tanks and water sources
 - Ventilation requirements
 - Cleanout placement rules
 - Pipe slope provisions
34. A hospital plumbing design does not include hot water lines in patient bathrooms. Based on the Code, what issue can this cause?
- Decreased sewer pressure
 - Non-compliance with health and sanitation requirements
 - Easier water storage
 - Reduced trap seal depth
35. A school has multiple toilets connected to a single small vent pipe. After several months, foul odors are reported. An analysis points to:
- Vents are undersized, leading to poor air circulation in the system
 - Pipe slope is too steep
 - Toilets are too close to each other
 - Lack of septic tank baffles
36. In a high-rise office building, upper floors experience weak water flow. Inspection shows no pumps or elevated tanks were installed. What design flaw is evident?
- Wrong location of septic tank
 - No provision for water pressure and distribution system
 - Absence of cleanouts
 - Oversized traps
37. An apartment complex reports frequent clogging in its main sanitary line. Upon inspection, there are no cleanouts installed. What key Code requirement was overlooked?
- Proper pipe slope
- b. Provision of cleanouts for maintenance
- c. Correct vent sizes
- d. Adequate trap seal depth
38. A restaurant discharges used cooking oil directly into the sanitary system without a grease interceptor. What long-term problem will likely occur?
- Faster flow of wastewater
 - Pipe blockages and foul odor due to grease buildup
 - Increased water pressure
 - Easier drainage cleaning
39. A plumbing system design shows water closets connected directly to the sewer line without traps. What hazard does this pose?
- Easier maintenance
 - Sewer gases may enter the building interior
 - Reduced pipe costs
 - Faster flushing
40. A residential subdivision connects multiple houses directly to a single undersized septic tank. After several months, untreated wastewater overflows. What analysis best explains the issue?
- Wrong use of vent pipes
 - Septic tank is overloaded beyond design capacity
 - Cleanouts were oversized
 - Storm drains were connected properly
41. In a four-story apartment, only one vent pipe serves all the floors. Tenants complain of unpleasant odors in bathrooms. As an inspector, how should this design be assessed?
- Acceptable because all fixtures are technically vented
 - Non-compliant since the vent is not adequate for a multi-story system
 - Compliant as long as traps are provided
 - Acceptable if larger drain pipes are used
42. A plumbing plan for the third floor shows water closets without individual vents, relying solely on the main stack. How should this be judged?
- Acceptable because water closets don't always need vents
 - Acceptable if traps have deep seals
 - Non-compliant since each water closet

- must be vented to prevent siphonage
- Acceptable if only a small number of closets are installed
43. A building owner proposes removing all vent pipes to cut costs, arguing that traps already stop gases. What is the correct evaluation?
- Acceptable if traps are deep enough
 - Non-compliant because vents are required to preserve trap seals
 - Acceptable in smaller structures only
 - Permitted in kitchens alone
44. In an office building plan, vent pipes end in an enclosed ceiling rather than outdoors. How should this design be evaluated?
- Acceptable if the odor is minimal
 - Non-compliant; vents must extend above the roof into open air
 - Allowed if air fresheners are installed
 - Acceptable if larger traps are provided
45. A hospital's plumbing design uses oversized traps but minimizes vent pipes to control gases. How should this be judged?
- Acceptable since traps are enlarged
 - Non-compliant because larger traps cannot replace proper venting
 - Acceptable with scheduled cleaning
 - Acceptable only in medical facilities
46. A subdivision restroom design uses a loop vent system to lessen the number of vent pipes. What is the proper evaluation?
- Acceptable if it follows the Code's loop venting provisions
 - Not permitted under any condition
 - Acceptable in residential projects only
 - Acceptable if no more than two fixtures are connected
47. An inspector notices vent terminals are too near operable windows. How should this situation be evaluated?
- Acceptable because air disperses quickly
 - Non-compliant; vent terminals must be away from windows to avoid odor entry
 - Acceptable if windows are kept closed
 - Permitted with insect screens installed
48. A mall has several floor drains but the design shows no venting provided. How should this be decided?
- Acceptable since vents are rarely
- required for floor drains
- Non-compliant because vents are needed to maintain trap seals in floor drains
 - Allowed if traps are oversized
 - Acceptable if chemical sealants are applied
49. A vent system plan for office lavatories shows the use of combination waste and venting. How should this be assessed?
- Acceptable if it complies with Code rules on combination venting
 - Non-compliant in all situations
 - Acceptable for residential buildings only
 - Acceptable when fewer than five lavatories are connected
50. A residential design proposes the use of air admittance valves (AAVs) instead of traditional vent pipes. How should this be judged?
- Acceptable if permitted by the local Code and correctly installed
 - Always prohibited under the Code
 - Acceptable only in commercial buildings
 - Acceptable if near windows

TEST II – Essay

INSTRUCTION: *React concisely with the following questions. (5 pts. each)*
Rubrics for rating.

5	Composition is outstanding. Statements/ideas are precise and concise with correct usage of grammar.
4	Composition is very satisfactory. Statements/ideas are precise and concise with slight problems in grammar.
3	Composition is satisfactory. Statements/ideas are not precise and concise with slight problems in grammar.
2	Composition is poor. Statements/ideas are slightly irrelevant with poor usage of grammar.
0	No composition at all.

51 – 55. Explain the purpose of venting in plumbing systems. Why is it critical for maintaining proper function of traps and drainage systems?

56 – 60. Discuss the different types of vent systems allowed under the National Building Code. How does each type serve specific plumbing needs?

ANSWER SHEET

Name: _____

Year/ Section: _____

1	A	B	C	D	16	A	B	C	D	31	A	B	C	D	46	A	B	C	D
2	A	B	C	D	17	A	B	C	D	32	A	B	C	D	47	A	B	C	D
3	A	B	C	D	18	A	B	C	D	33	A	B	C	D	48	A	B	C	D
4	A	B	C	D	19	A	B	C	D	34	A	B	C	D	49	A	B	C	D
5	A	B	C	D	20	A	B	C	D	35	A	B	C	D	50	A	B	C	D
6	A	B	C	D	21	A	B	C	D	36	A	B	C	D					
7	A	B	C	D	22	A	B	C	D	37	A	B	C	D					
8	A	B	C	D	23	A	B	C	D	38	A	B	C	D					
9	A	B	C	D	24	A	B	C	D	39	A	B	C	D					
10	A	B	C	D	25	A	B	C	D	40	A	B	C	D					
11	A	B	C	D	26	A	B	C	D	41	A	B	C	D					
12	A	B	C	D	27	A	B	C	D	42	A	B	C	D					
13	A	B	C	D	28	A	B	C	D	43	A	B	C	D					
14	A	B	C	D	29	A	B	C	D	44	A	B	C	D					
15	A	B	C	D	30	A	B	C	D	45	A	B	C	D					

GOOD LUCK!!



Prepared by:

ROMEL P. RECOPUERTO, MTE.
Instructor

Reviewed by:

IRENE F. BINAG, MAT.
BTVTE Program Chairman

GLENN S. TALUA, MERE.
BSIT Program Chairman

2025 -10- 07

Approved by:

CHARLIE J. MAGHANOY, Ed.D.
CIT Dean