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QUALIFICATION: BACHELOR of ENVIRONMENTAL HEALTH SCIENCES	
QUALIFICATION CODE: 08 BOHS	LEVEL: 5
COURSE: Housing and Health	COURSE CODE: HAH 521S
DATE: JANUARY 2025	SESSION: 2
DURATION: 3 HOURS	MARKS: 100

SECOND OPPORTUNITY/ SUPPLEMENTARY EXAMINATION PAPER

EXAMINER: **MS. CHARMAINE JANSEN**

MODERATOR: **MR. IMMANUEL ZERIAPI**

INSTRUCTIONS:

1. Answer all questions on the separate answer sheet.
2. Please write neatly and legibly.
3. Do not use the left-side margin of the exam paper. This must be allowed for the examiner.
4. No books, notes and other additional aids are allowed.
5. Mark all answers clearly with their respective question numbers.

PERMISSIBLE MATERIALS

1. Non-Programmable Calculator

ATTACHMENTS

None

This paper consists of 5 pages including the front page

SECTION A [30 MARKS]

QUESTION 1 (10 Marks)

1.0 Evaluate the statements in each numbered section and select the most appropriate answer or phrase from the given possibilities.

1.1 What is the purpose of a "green belt" in town planning? [1]

- A. To reserve land for future infrastructure development
- B. To provide space for industrial expansion
- C. To preserve natural areas and control urban sprawl
- D. To increase commercial real estate value
- E. All the above

1.2 Which of the following is a feature of "mixed-use" zoning? [1]

- A. Allows residential and commercial activities in the same area
- B. Restricts land use to a single type (e.g., only residential)
- C. Reserved exclusively for industrial activities
- D. Prioritizes open spaces for recreational use
- E. None of the above

1.3 Which of the following is the most common type of cement used in building construction? [1]

- A. Rapid hardening cement
- B. Portland cement
- C. Sulfate-resistant cement
- D. White cement E.

1.4 In construction, what is the primary factor affecting the cost of building services like HVAC installation? [1]

- A. Type of building material
- B. Size and complexity of the building
- C. Local building codes
- D. All of the above
- E. None of the above

1.5 What does the term "setback" refer to in building plans? [1]

- A. Cost of the structure
- B. Structural failure
- C. The distance between a building and the property boundary
- D. The depth of the foundation
- E. The cost of the project

1.6 Which of the following professionals is NOT directly involved in the creation of the building plans? [1]

- A. Plumber
- B. Architect
- C. Civil engineer
- D. Interior designer
- E. Accountants

1.7 Which building code primarily deals with accessibility for people with disabilities? [1]

- A. ASHRAE
- B. ADA Standards
- C. LEED
- D. IBC
- E. NONE OF THE ABOVE

1.8 The building energy code that promotes energy-efficient building design is called: [1]

- A. ISO 14000
- B. ASTM
- C. LEED
- D. ICCE.
- E. NONE OF THE ABOVE

1.9 The structure of a building is as follows: height is 3 meters; length is 10 meters and width is 3 meters. Calculate the size of the window. [1]

- A. 2.3 m²
- B. 1.8 m²
- C. 3.6 m²
- D. 3.0 m²
- E. 4.8 m²

1.10 A building plan can be defined as: [1]

- A. A financial plan for a construction project
- B. A detailed architectural drawing of a building
- C. A contract between the builder and the client
- D. A government document for construction approval
- E. A business proposal.

QUESTION 2 (10 Marks)

2.0 Match the term in Column A with the correct description/definition in Column B.

[10]

COLUMN A	COLUMN B	
2.1 Process indicator	A. Measures the immediate or short-term effect of the activity on its target group.	[1]
2.2 Farm	B Site plan, floor plan, elevation drawings, foundation plan, roof plan, sections, plumbing, electrical layouts, etc.	[1]
2.3 City	C. Prevention, first care example vaccination.	[1]
2.4 Floor plan	D. Analyze the influence of zoning laws on building plans. Provide examples of how zoning restrictions can affect the design and layout of a building.	[1]
2.5 "Green belt" in town planning?	E. H. Made with clay, baked in the oven and is weaker than the other bricks	[1]
2.6 Elements of a Building Plan	F. An isolated settlement consisting of one house.	[1]
2.7 Zoning Laws and Building Plans	G. Show the builder the size of the building, the verandah, the thickness of the walls, where to place the doors and windows	[1]
2.8 Redbrick	H. To preserve natural areas and control urban sprawl	[1]
2.9 Primary Health Care	I. A very large settlement with a large railway station, shopping complex, cathedral, a large hospital, museum university and office blocks.	[1]
2.10 Impact indicator	J. It is a way of measuring the activities that are being carried out. (e.g. number of toilets constructed; number of houses sprayed)	[1]

QUESTION 3 (10 Marks)

3.0 Evaluate the statements and select whether the statement is true or false.

- 3.1 A gutter collects the rainwater and transports it to the stormwater drains. [1]
- 3.2 The structure of the houses in Havana informal settlement contributed to the high reported COVID cases in Havana. [1]
- 3.3 The colouring of blue materials on the building plan indicates a water pipe. [1]
- 3.4 Oil paint is not a requirement in the informal settlement and formal houses. [1]
- 3.5 When you build a house, the minimum height should be 1.5 m in the South because people in the South are short and 2.5 m in the East because people in the East are big and tall. [1]

- 3.6 The external wall's minimum width should be not less than 110 mm. [1]
- 3.7 A police station is not necessary for a small town. [1]
- 3.8 A public swimming pool is an important facility in a town with very hot temperatures. [1]
- 3.9 Overcrowding in an informal settlement increases hypertension in the community and decreases Tuberculosis in the community. [1]
- 3.10 Building toilets for the community falls under secondary care for HIV AIDS patients. [1]

SECTION B (40 MARKS)

QUESTION 4 (30 Marks)

- 4.0 Write short notes on the following:
- 4.1 Doors [6]
- 4.2. Foundation [2]
- 4.3 Pipes [8]
- 4.4 Drains [4]
- 4.5 Walls [10]

QUESTION 5 (10 Marks)

- 5.0 Elaborate on the benefits of Town Planning. [10]

SECTION C (30 MARKS)

QUESTION 6 (30 Marks)

- 6.1 Summarize the challenges and constraints a local authority might experience when proper town planning is not in place. [10]
- 6.2 Discuss the elements which categorise a healthy house. [20]

END OF THE QUESTION PAPER