

No applicants who wish to take the examination in English

2016年8月29日 13時～16時
13:00-16:00, August 29, 2016

[C 計画・設計・論文]
[C : Planning・Design・Essay]

C-1 計画・設計
Planning・Design
(専攻分野：都市環境工学)
(Major field: Urban Environmental
Engineering)

受験番号

Examination I. D. _____

- (1) すべての答案用紙の所定の欄に、受験番号を記入しなさい。氏名を記入してはならない。
Write the question number and your examination I. D. on all the answer sheets. Do not write your name.
- (2) 問題冊子に受験番号を記入しなさい。
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- (3) 専攻分野として「都市環境工学」を希望するものは、C-1、C-2のいずれか1科目を解答しなさい。
If your major field of study is “Urban Environmental Engineering,” answer either C1 or C2.

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C-2 論文

Essay

(専攻分野：都市環境工学)
(Major field: Urban Environmental
Engineering)

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[C 計画・設計・論文]
[C : Planning・Design・Essay]

C-3 計画・設計
Planning・Design
(専攻分野：都市計画)
(Major field: Urban Planning)

受験番号

Examination I. D.

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If your major field of study is “Urban Planning,” answer either C-3 or C-4.

C-3 Planning and Design

Propose a development concept for Site X (approximately 6.8 ha) and a development plan for Northern Part in Site X (approximately 4.6 ha) by referring to the following document and maps in Answer Sheets 1 and 2.

1. Background of the development

- City A, with a population of 400,000, is located approximately 50 km away from the core of Tokyo. Station A, served by JR and two private railway companies, is located in the center of the city.
- Site X is located in between Station A and its immediate east JR Station B. It is at a walking distance from both Stations A and B.
- Site X is divided into Northern Part (approximately 4.6 ha) and Southern Part (approximately 2.2 ha) by JR railway tracks. Northern Part is owned by the city but currently almost not in use. Southern Part is mainly used as farmland.
- A 10 ha mixed-use development project, including a mega shopping center, office facilities, and housing complexes, is planned in Old Industry Site R, which is located to the south of Site X across River Q and was used as a JR train repair plant.

Under the condition listed above, a new Station C in Site X was proposed. It was also approved that a development concept of Site X and a development plan of Northern Part should be prepared before the opening of Station C. Note that Station C will be the nearest station from Old Industrial Site R.

2. Condition of the targeted site and its surroundings

[Site X]

- JR railway tracks, as the border between Northern and Southern Parts, are laid on a mound approximately 1 m in height.
- Northern and Southern Parts are connected to each other only by

Underpass D for pedestrians and bicycles.

- Station C is planned to be constructed as an elevated station building with a pedestrian passage (10 m width and 7 m clearance from railway tracks), which faces the entrance of Station C as shown in Answer Sheets 1 and 2. A station traffic square is planned in both Northern and Southern Parts. Size and location of the squares are already decided.
- Overcrossing E is planned to the west of Site X.
- Elementary schools and junior high schools are located within 15-min walks to the north and south of Site X (outside of the map in the Answer Sheet 1).
- Currently, neither a supermarket nor a shopping center is located on Site X and its surroundings (inside of the map in the Answer Sheet 1).
- Site X is located on a flat terrain.

[Northern Part]

- Research Center F of a pharmaceutical company is located next to Northern Part.
- West side of Research Center F is a buffer green, which is open to the public during the day to enjoy natural environment.
- Northern Part is mostly surrounded by low-rise detached residential districts (category 1 exclusively low-rise residential district of the City Planning Act in Japan is designated) except for Research Center F and JR railway tracks.
- Green open spaces, privately owned and undeveloped, are remaining to the north of Northern Part.

[Southern Part]

- Adjacent to Southern Part, Urban Park G, designated by the city plan, is proposed on a hilly site with rich forest patches. The park is planned to be opened at the same time with the Site X development project. Adjacent to Urban Park G is a shrine on the opposite side of Site X.
- Old Path H from the Kamakura period, remaining unchanged without pavement, is found in the proposed site of Urban Park G along the hillside. Old Path H, illustrated as a gray dot line in Answer Sheet 1, is an important historical resource that used to stretch from Old Industry Site R to the west side of Research Center F in premodern times.

- To the east of Southern Part, there are industrial plants of a steel manufacturing company, which are now considered to be redeveloped as housing or research facilities.

3. Planning requirements and required planning documents

Local government of City A sets the aim of the development to attract both families with children and senior families by advertising its adjacency to Station C. Market demands to have a housing development on Site X are not low as the site is in a 45-min commuting distance from Tokyo by direct rapid train services. However, based on a far-sighted perspective, a development plan with added values that harmonizes the development with surrounding residential areas and natural and historical environment is required.

1) Development concept for Site X

《Planning requirements》

- In Site X, except for the areas of station squares, a commercial-office development and a multiple dwelling development with the upper gross floor area ratio of 200% should be planned.
- Approximately 6000 m² park(s) should be provided inside Site X.
- In Northern Part, except for the station traffic square and park(s), a multiple dwelling development with the gross floor area ratio of approximately 100% should be planned. Detailed planning requirements are explained in the next section.
- Locations and sizes of Station C building, a pedestrian passage, and station traffic squares are fixed as already shown in Answer Sheets 1 and 2.
- Additional bridges or tunnels connecting Northern Part and Southern Part are accepted if they are for pedestrians and bicycles, not for vehicles.

《Required planning documents》

Using Answer Sheet 1 (Development concept for Site X), propose a development concept for Site X including the following items with 1/3000 map and texts. You may add some other items and/or illustrated diagrams and figures along with the texts, if necessary.

(1) Development concept

(2) Land-use planning polices (land use, building rough volume (low-rise,

mid-rise, high-rise), arrangement of various facilities, etc.)

- (3) Transportation policies (flows of automobiles, bicycles, pedestrians, etc.)
- (4) Open-space policies (arrangements of parks, green and open spaces, etc.)
- (5) Surrounding facilities necessary for the development of Site X (access road for Site X, etc.)

2) Development plan for Northern Part

《Planning requirements》

- Provide approximately 250 housing units for families and approximately 50 housing units for singles or couples.
- Provide automobile parking lot(s) as many as approximately 80% of the units for families. Mechanical parking facilities (multiple levels type) are allowed.
- Provide approximately 3000 m² commercial facilities and offices including a child care center on lower floors. These can be located dispersedly. In addition, provide visitor parking space(s) for 50 cars. Structured parking facility is allowed.
- Provide park(s) with an area of more than 5000 m² for residents living in and around Site X.
- Provide a small community library including a café with the floor area of approximately 1000 m².
- Provide proper playgrounds for infants and elementary-school children and community spaces for elderly people and others needed in a multiple dwelling area.

《Required planning documents》

Using Answer Sheet 2 (Development Plan for Northern Part (Map)) and Answer Sheet 3 (Development Plan for Northern Part (Texts)), propose a development plan for Northern Part including the following items with 1/1000 map and texts. You may add some other items or draw diagrams and sketches in Answer Sheet 3, if necessary.

- (1) Multiple dwelling(s) (form of the housing building, location of entrances, number of floors, and number of units for each housing type)
- (2) Commercial and business floors
- (3) Parking lot(s) for automobiles
- (4) Park(s) for residents both in and around Site X
- (5) Playgrounds for infants and elementary-school children and community spaces for elderly people and others needed in a multiple dwelling area

(6) Streets and paths within the area (for vehicles, bicycles, and pedestrians)

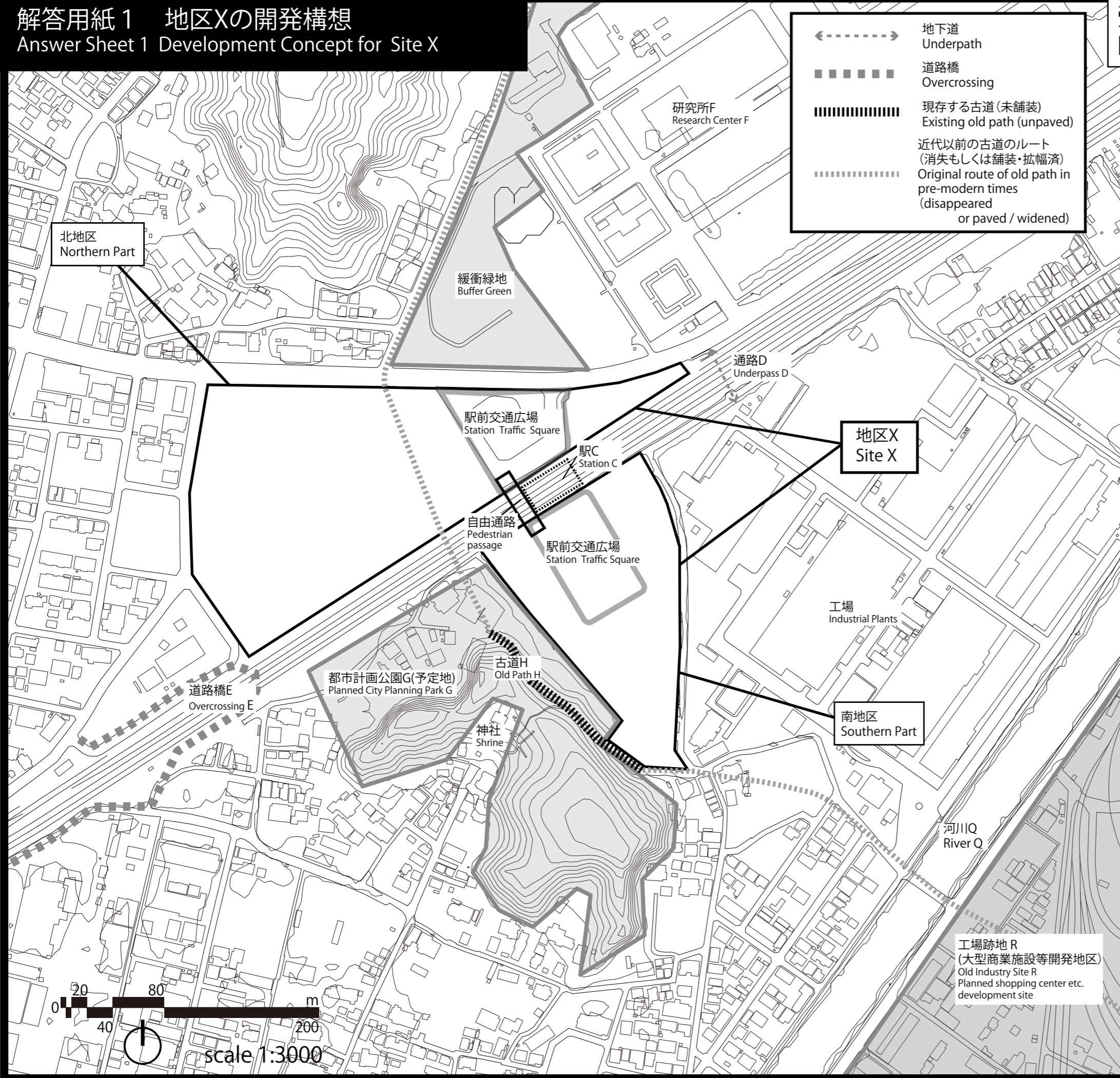
(7) Other facilities needed

Additional proposal on station traffic square, for which the location and form are shown in advance in Answer Sheet 2, is not required.

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解答用紙1 地区Xの開発構想
Answer Sheet 1 Development Concept for Site X

受験番号
Examination I.D.



文章欄
(Texts)

緩衝緑地
Buffer Green

駅前交通広場
Station Traffic Square

駅C 橋上駅舎
Elevated Station C Building

自由通路
Pedestrian Passage

古道H
Old Path H



scale 1:1000

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[C 計画・設計・論文]
[C : Planning・Design・Essay]

C-4 論文
Essay
(専攻分野:都市計画)
(Major field: Urban Planning)

受験番号

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C-4 Essay

In recent Japan, it is often argued that young people with their own sense of value, which is significantly different from those of the former generations, are emerging. They are, for example, lumped together as “XX *sedai* (generation).” Also in the United States, “Millennials,” who were born from around 1980 to around the early 2000s, are regarded to have different tendencies from those of the previous generations. Because they are the first generation to have had access to the Internet during their formative years, they are the most educated generation to date and many of them have come of age during a very difficult time in the U.S. economy.

The changes in the sense of value affect the choices in people’s daily and longer life, such as the choices of consumption behaviors, travel behaviors, residential locations, and work/lifestyle. In addition, the evolution in the field of transportation and information-communication technology has provided, and will continue to provide into the near future, new options for those choices. As a result, they in combination have the potential to transform the physical and nonphysical states of cities, and furthermore, influence how urban planning should be done. Answer the following questions on this topic.

- (1) Organize structurally and explain the possible inter-relationships, as extensively as possible, among the changes in the sense of value of Japanese recent young generation, which is often argued as noted above, the factors causing them, and their effects on the choices in life. Use auxiliary diagrams and/or tables, if necessary.
- (2) Enumerate three new technologies in the transportation and information-communication field that will evolve in the near future and affect the state of cities, and explain the outline of each technology concisely.
- (3) Take up one of the changes in the sense of value you described in (1) and one of the new technologies you enumerated in (2), both of which are expected to have significant influence on the current and future urban planning, and discuss the following issues.
 - (3-1) How will each change in the sense of value and the new technology transform the state of Japanese cities?
 - (3-2) How should the current and future urban planning and urban policy in Japan, along with the related institutional frameworks, address them, taking account of the transformation you described in (3-1)?