修士課程　社会情報学専攻入学者選抜試験問題
(専門科目)

Entrance Examination for Master's Program
(Specialized Subjects)
Department of Social Informatics

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August 6, 2012 13:00 - 15:00

【注意】

- **試験開始の合図があるまで中を見てはいけない.**
- **問題用紙は表紙を含めて 24 枚である. 試験開始後, 枚数を確認し, 落丁または印刷の不鮮明なものがあれば直ちに申し出ること.**
- **問題は 16 題である. このうち第一位の志望区分が指定する問題 1 題 (社 7 は T1-T6 から 1 題, E1-E3 から 1 題, 計 2 題) を含む 3 題を選択し, 解答しなさい. 問題番号と志望区分の対応は次ページに示す.**
- **解答用紙の表紙に記載されている注意事項についても留意すること.**
- **問題 1 題につき, 解答用紙 1 枚を使用すること. 解答用紙は裏面を使用しても構わないが, 使用する場合は裏面に継続することを明記すること.**

NOTES

- Do not open the pages before a call of starting.
- This is the Question Booklet in 24 pages including this front cover.
  After the call of starting, check all pages are in order and notify proctors immediately if missing pages or unclear printings are found.
- There are 16 questions. **Choose and answer 3 questions in total. (One of them must be from your first-choice application group.)** If your first choice is SI-7, choose at least one from T1 - T6, and one from E1 - E3 respectively. List of question numbers and application groups is shown in the next page.
- Read carefully the notes on the front cover of the Answer Sheets, too.
- Use one sheet for each question. If necessary, the reverse side may be used, stating "Over" at the end of the page.

問題番号と志望区分の対応表

問題番号	志望区分	ページ番号
T-1 ～ T-6	社-1，社-2，社-3，社-5，社-6，社-7，社-14	3 ～ 10
B-1 ～ B-3	社-8，社-9	11
D-1 ～ D-3	社-10，社-11，社-12	12
M-1	社-13	13 ～ 14
E-1 ～ E-3	社-7	15 ～ 24

Question Numbers and Application Groups

Question Numbers	Application Groups	Page Numbers
T-1 ～ T-6	SI-1, SI-2, SI-3, SI-5, SI-6, SI-7, SI-14	3 ～ 10
B-1 ～ B-3	SI-8, SI-9	11
D-1 ～ D-3	SI-10, SI-11, SI-12	12
M-1	SI-13	13 ～ 14
E-1 ～ E-3	SI-7	15 ～ 24

【専門科目】問題番号：T-1 【Specialized Subjects】Number: T-1

大学に関するデータベースのスキーマを設計し，そのスキーマ上の問合せを考える．以下のすべての問に答えよ．

(1) 以下の四つの条件を満足するデータベーススキーマを ER 図で表現せよ．
- 各教員は高々一つの学科に所属する．
- 学科は高々一つの学部に所属する．
- 学部には年度ごとに一人の教員が学部長として任命される．
- 教員が各年度に教える科目数に制限はない．

条件が不足している場合は適宜追加しそれらを説明すること．特殊な記号を図中で用いる場合はその説明を加えること．

(2) (1)で得られた ER 図に対応する関係データベーススキーマを設計せよ．設計の過程を詳細に説明すること．また，得られた各関係スキーマの正規形について論じよ．

(3) (2)で求めた関係データベーススキーマ上の以下の問合せを関係代数で表現せよ．
(a) 教員が学部長である年度に教えた科目とその年度を求めよ．
(b) ある年度に 3 科目以上の科目を教えた教員の名前とその年度を求めよ．

Let us design a database schema for a university, and consider queries on the schema. Answer all the questions below.

(1) Draw an ER diagram which represents a database schema satisfying the four conditions below.

- Each faculty member belongs to at most one department.
- Each department belongs to at most one school.
- One of the faculty members is appointed a dean of a school in each academic year.
- There is no limitation on the number of courses each faculty member teaches in one academic year.

If some conditions are missing, add appropriate conditions and explain them. Add explanation for special notations used in the diagram.

(2) Design a relational database schema which corresponds to the ER diagram obtained in (1). Explain process of the design in detail. Discuss the normal form for each relational schema obtained.

(3) Write the following queries in relational algebra on the relational database schema obtained in (2).

(a) Obtain the courses and the academic years such that a faculty member taught the course during when she or he is a dean.

(b) Obtain the names of faculty members and the academic years such that she or he taught three or more courses in a year.

【専門科目】問題番号：T-2 【Specialized Subjects】Number: T-2

以下の問いから 2 題を選んで答えよ.

(1) 「認知」を構成する主要な心的プロセスを説明せよ．また，人間とコンピュータのインタラクションをデザインするのに，認知に関する研究結果をどのように用いることができるかを，例を用いて説明せよ.

(2) 「メンタルモデル」とは何か．状態遷移モデルを含むいくつかの典型的なメンタルモデルを例として説明せよ.

(3) ユーザビリティ評価手法である「ヒューリスティック評価」と「認知ウォークスルー」を説明せよ．また，ヒューリスティック評価に用いられる典型的なヒューリスティックスを列挙せよ.

Select two from the following questions and answer them.

(1) Explain major mental processes included in "cognition." Explain with examples how human computer interaction can be designed using research results on cognition.

(2) What is "mental model?" Explain it by taking several typical mental models including a state transition model as examples.

(3) Explain evaluation methods called "heuristic evaluation" and "cognitive walkthrough." List typical heuristics used in heuristic evaluation.

【専門科目】問題番号：T-3 【Specialized Subjects】Number: T-3

情報検索システムの評価尺度に関する下記の問 1～問 3 に答えよ.

問1. F 値について説明せよ. また, F 値が, 適合率と再現率の算術平均に比べて優れている点について述べよ.

問2. ある検索質問qに対するすべての正解文書の集合を$\{d_1, d_2, d_3, d_4, d_5\}$とする. この検索質問$q$を検索エンジンに投入すると, ヒットした文書が$d_1, d_2, d_3, d_4, d_5, d_6, d_7, d_8, d_9, d_{10}$の 10 件であったとする. 検索エンジンのランキングの結果は, 上位から, $d_1, d_6, d_7, d_2, d_3, d_4, d_8, d_9, d_5, d_{10}$の順であったとしよう. ランキングの上位$k$件$(1 \leq k \leq 10)$が, この検索エンジンが返した検索結果であるとした時, 縦軸（Y 軸）を適合率, 横軸（X 軸）を再現率とした適合率-再現率曲線を描け.

問3. 評価尺度としてよく用いられる MAP（Mean Average Precision）について説明せよ. 2 つの検索質問q, q'に対し, それぞれの正解文書が, $\{d_1, d_3, d_6, d_7, d_{10}\}, \{d'_4, d'_5, d'_6, d'_7, d'_{10}\}$であるとする. ある検索エンジンが, 検索質問$q, q'$に対してそれぞれ, 以下のような 10 件の検索結果を返すとする.

検索質問qの検索結果（ランキング順）：$d_1, d_2, d_3, d_4, d_5, d_6, d_7, d_8, d_9, d_{10}$

検索質問q'の検索結果（ランキング順）：$d'_1, d'_2, d'_3, d'_4, d'_5, d'_6, d'_7, d'_8, d'_9, d'_{10}$

この場合の MAP を求めよ.

Answer the following questions 1, 2, and 3 that are concerned with evaluation measures of information retrieval systems.

Question 1. Explain the F-score (or F-measure). Also, explain why the F-score is superior to the arithmetic mean of precision ratio and recall ratio.

Question 2. Let $\{d_1, d_2, d_3, d_4, d_5\}$ be the set of all the relevant documents for a query q. A search engine retrieves 10 documents $d_1, d_2, d_3, d_4, d_5, d_6, d_7, d_8, d_9, d_{10}$ for the query q. Assume that the search engine ranks those documents in the order of $d_1, d_6, d_7, d_2, d_3, d_4, d_8, d_9, d_5, d_{10}$. Suppose that the top-k documents $(1 \leq k \leq 10)$ are regarded as the search result returned by the search engine, draw the precision-recall curve, where Y-axis denotes precision and X-axis denotes recall.

Question 3. Explain MAP (Mean Average Precision), which is an evaluation measure of information retrieval systems. Let $\{d_1, d_3, d_6, d_7, d_{10}\}$ and $\{d'_4, d'_5, d'_6, d'_7, d'_{10}\}$ be the sets of relevant documents for queries q and q', respectively. Suppose that a search engine retrieves the following 10 documents for each query q and q':

Ranked documents for query q: $d_1, d_2, d_3, d_4, d_5, d_6, d_7, d_8, d_9, d_{10}$

Ranked documents for query q': $d'_1, d'_2, d'_3, d'_4, d'_5, d'_6, d'_7, d'_8, d'_9, d'_{10}$

Compute MAP for this case.

【専門科目】問題番号：T-4 【Specialized Subjects】Number: T-4

以下の設問に答えよ.

Q1. 2013 年度から実施される高等学校の新しい学習指導要領では普通教科「情報」はどのように構成され，どのような履修が要求されているかについて以下の問に答えよ.

a) 教科「情報」を構成する科目の名称を述べよ.

b) 教科「情報」について要求されている単位数を述べ，その単位数がどのような授業時間数を求めているか説明せよ.

Q2. e-Learning について以下の問に答えよ

a) e-Learning に用いられるシステムとして Course Management System（CMS）がある. これはどのようなシステムか主要な機能を挙げて 200 字程度で説明せよ

b) CMS もその上で使用する学習コンテンツも多様な供給者によって開発される. このような場合，学習コンテンツを様々な CMS 上に流通させるために何が問題になるか. またその対策としてどのような方策が取られているかを 150 字程度で述べよ.

c) Blended Learning とは何か 100 字程度で説明せよ.

Answer the following questions.

Q1. The new "Course of Study" established by MEXT is applied from the academic year 2013 to senior high schools of general courses in Japan. Answer the following questions on the subject area "Information" prescribed in the new Course of Study.

a) Give the names of the subjects which belong to the subject area "Information".

b) Give the number of the required credits to be taken in the subject area "Information", and explain the meaning of credits in terms of class hours.

Q2. Answer the following questions on e-Learning.

a) Course Management System (CMS) is a system used in e-Learning. Explain this system by describing major functions provided by the system in about 70 words.

b) Both CMS and learning content used in the systems are developed by various suppliers. Explain the problem encountered in circulating the learning content among various types of CMS, and its countermeasures in about 50 words.

c) What is "Blended Learning"? Explain it in about 30 words.

【専門科目】問題番号：T-5 【Specialized Subjects】Number: T-5

正規文法，文脈自由文法，文脈依存文法に関して以下の問いに答えよ．

(1) 二つの正規文法 G1, G2 が与えられた時，それらの共通部分に相当する正規文法，すなわち，G1, G2 が定義する言語をそれぞれ L1, L2 とする時，L3 = L1 ∩ L2 であるような言語 L3 を定義する文法 G3 を求める方法を説明せよ．

(2) 正規文法では定義できないが，文脈自由文法では定義できるような言語の例を示し，その言語が正規文法では定義できないことを証明せよ．

(3) 文脈自由文法では定義できないが，文脈依存文法では定義できるような言語の例を示し，その言語が文脈自由文法では定義できないことを証明せよ．

Answer the following questions on regular grammars, context-free grammars, and context-sensitive grammars.

(1) Suppose two regular grammars G1 and G2 are given. Explain how to produce a regular grammar G3 corresponding to their intersection, i.e., a regular grammar G3 that produces a language L3 = L1 ∩ L2, where L1 and L2 are languages G1 and G2 produce, respectively.

(2) Show an example of a language that cannot be defined by any regular grammar but can be defined by a context-free grammar, and prove the language cannot be defined by any regular grammar.

(3) Show an example of a language that cannot be defined by any context-free grammar but can be defined by a context-sensitive grammar, and prove the language cannot be defined by any context-free grammar.

【専門科目】問題番号：T-6 【Specialized Subjects】Number: T-6

敵対探索に関する以下の 5 つの問いに答えよ.

(1) チェスなどの 2 人ゲームの問題空間の表現法について説明せよ.
(2) 2 人ゲームに対するミニマックスアルゴリズムについて説明せよ.
(3) 一般には，2 人ゲームの問題空間は膨大となり，ミニマックスアルゴリズムをそのまま適用することはできない．このような場合に，良い意思決定を行う方法について説明せよ.
(4) バックギャモンなどのゲームでは，サイコロを振るといった偶然性の要素が含まれる．このようなゲームにおける意思決定法として「期待ミニマックスアルゴリズム」が知られている．期待ミニマックスアルゴリズムについて説明せよ.
(5) 期待ミニマックスアルゴリズムを考える．各ゲーム状態の評価値に対して，順序関係を保存する変換が行われる場合に，指し手の選択が変化するかどうかを説明せよ.

Answer the following five questions about adversarial search.

(1) Explain how to represent a problem space of two-player games such as chess.
(2) Explain the minimax algorithm for two-player games.
(3) The problem space of a two-player game often becomes huge and it is difficult to apply the minimax algorithm as it is. Explain how a good decision can be made in this situation.
(4) Games such as backgammon include a random element such as the throwing of dice. The "expectiminimax" algorithm is known as a method to find a good move in such a game. Explain the expectiminmax algorithm.
(5) Consider the expectiminimax algorithm. Explain whether the choice of move remains unchanged in a game tree if an order-preserving transformation is used in evaluating the value of each game state.

【専門科目】問題番号：B-1 【Specialized Subjects】Number: B-1

生物資源を利用したエネルギー源を 2 つ挙げ，環境，農業の視点からそれらの利点，欠点を論じなさい．

Give two examples of energy resources derived from bio resources, and describe advantages and disadvantages of each of them from the view point of environment and agriculture.

【専門科目】問題番号：B-2 【Specialized Subjects】Number: B-2

生物多様性の指標として，種数を用いることの利点と問題点について論じなさい．

Describe advantages and disadvantages of using the number of species as an index of biodiversity.

【専門科目】問題番号：B-3 【Specialized Subjects】Number: B-3

以下の語句から 5 つ選び，各々について説明しなさい．
Choose five terms from the following, and explain them.

RDD 調査法 (RDD survey method)
四分位数 (Quartile)
モンテカルロ法 (Monte Carlo method)
ジャイロセンサー (Gyro sensor)
バイオテレメトリ (Biotelemetry)
漁獲割当量 (Catch quota)
ラムサール条約 (Ramsar convention)
温室効果ガス (Greenhouse gas)
生態系 (Ecosystem)
固有種 (Endemic species)

【専門科目】問題番号：D-1 【Specialized Subjects】Number: D-1

災害は一般に低頻度で大規模な損害をもたらす事象であると言われる．このような災害リスクの特徴が，しばしば減災に関わる計画や実施を困難にしている．事例を挙げてこの種の困難を説明するとともに，その対処方法について述べよ．

A disaster is referred to as a low frequent and high impact event. This feature of disaster risk makes planning and implementation of disaster risk reduction difficult. Illustrate such difficulties with real cases and state your opinion to overcome such problems.

【専門科目】問題番号：D-2 【Specialized Subjects】Number: D-2

ハザードマップ（防災マップ）を有効に活用する際，障害となる点について論じなさい．

Discuss difficulties in effective use of hazard maps (disaster prevention maps).

【専門科目】問題番号：D-3 【Specialized Subjects】Number: D-3

災害情報システムが持つべき基本的な特徴を述べよ．

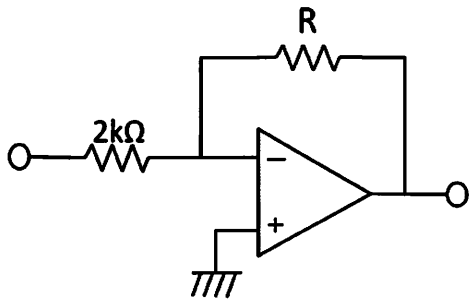
Describe the basic characteristics of emergency management information systems.

【専門科目】問題番号：M-1 【Specialized Subjects】Number: M-1

生体信号等を日常生活環境下で計測対象者に意識させること無く計測し続けるアンビエントな情報システムが整備されれば，患者 QoL の向上と医療費の削減を同時に実現する在宅予後管理等が実現できると期待されている．
心電は，最も基本的な生体計測信号である．回路全体の信号利得が 1,000 倍，通過帯域特性が 0.05Hz～150Hz で有るような心電計測装置があるとして，下記の問いに答えよ．

An ambient information system, which collects bio-signals during daily lives without occupying the patient intention, is expected to be a silver bullet to enable home management of chronic diseases and to decrease medication cost without cutting QoL of the patients.
The electrocardiogram is the most common and basic bio-signal. Assume you have electrocardiograph, whose amplification gain is 1,000 and the frequency range of the bandpass filter is 0.05Hz – 150Hz. Answer the following questions.

(1) 上記の心電計測装置は，差動増幅回路と反転増幅回路で帯域通過フィルタを挟むような構成であったとする．差動増幅回路の利得が 20 倍であったとき，下記の反転増幅回路における R の抵抗値をいくらにすればよいか，答えよ．
Your electrocardiograph has a bandpass filter between a differential amplifier and an inverting amplifier. Give the value of the resistor R in the following inverting amplifier, when the gain of the differential amplifier is set to 20.



(2) 上記の心電計測装置で得られた信号を AD 変換する場合，サンプリング周波数はいくら以上でなければならないか，理由をつけて述べよ．
Give required minimum sampling rate to digitize the electrocardiogram given by the electrocardiography. Do not forget to discuss the reason.

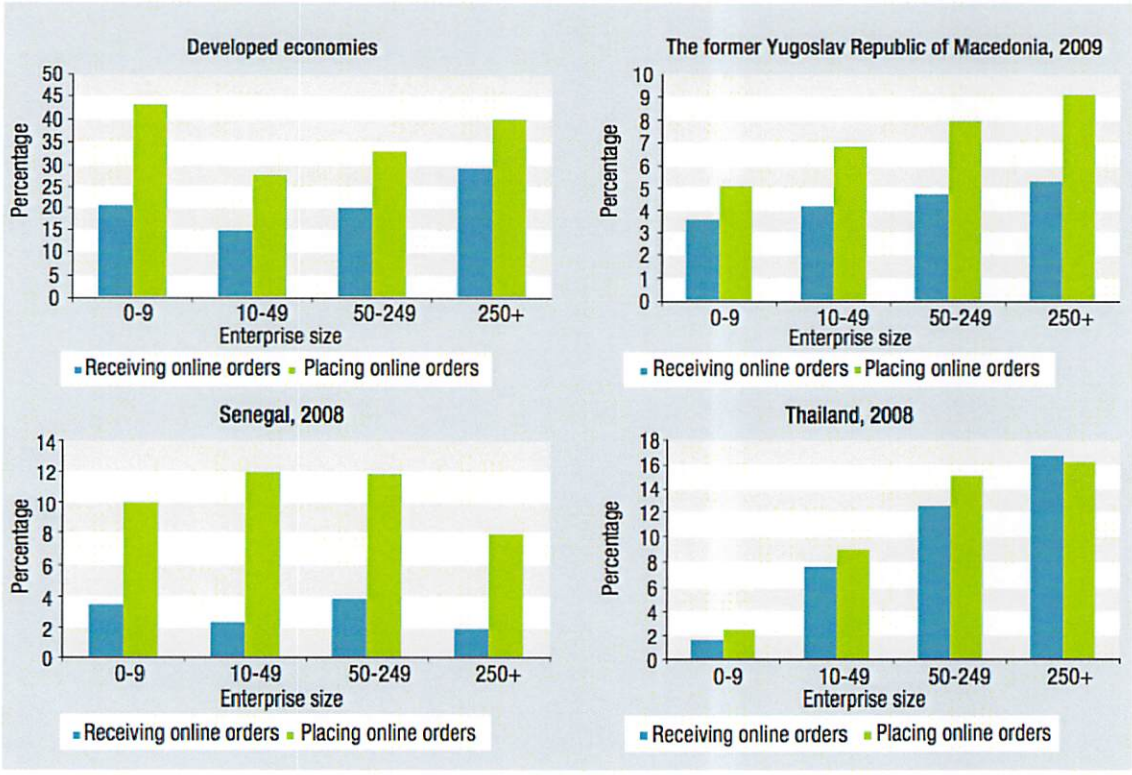
(3) 上記の心電装置で得られた信号を 8bit でサンプリングし，無線 LAN を用いてサーバに送信するとする．この場合，必要とされる通信帯域幅を答えよ．ただし，最大パケット長は 1024 オクテットとし，パケットのヘッダ長は 124 オクテットであるとする．なお，全ての制御パケットによる帯域消費は無視してよい．

You want to send 8-bit sampled electrocardiogram given by the electrocardiography to a server through WiFi connection. Answer required bandwidth, when a packet length is 1024 octets and a header length is 124 octets. Here you can ignore bandwidth consumption of control packets.

【専門科目】問題番号：E-1 【Specialized Subjects】Number: E-1

図 1 は国連貿易開発会議（UNCTAD）出版による“INFORMATION ECONOMY REPORT 2011”に掲載された，いくつかの国における企業の IT 状況に関するデータである．これについて以下の設問にすべて答えなさい．

図 1. Enterprises using the Internet to place and receive orders, selected economies, 2008-2009 (%)



（注：図中で“Receiving online orders”は企業がインターネット等を使用しオンラインで注文を受けていること，“Placing online orders”はオンラインで注文を出していることを意味する．“Former Yugoslav Republic of Macedonia”は日本語でマケドニア旧ユーゴスラビア共和国のことである．）

問1. 上記のグラフから読み取れることを説明するにあたり必要な論点を 4 つ設定したい．また，それぞれの論点において，その差異を論ずるために 2 つ以上のレベル分けまたはカテゴリ分けを行いたい．

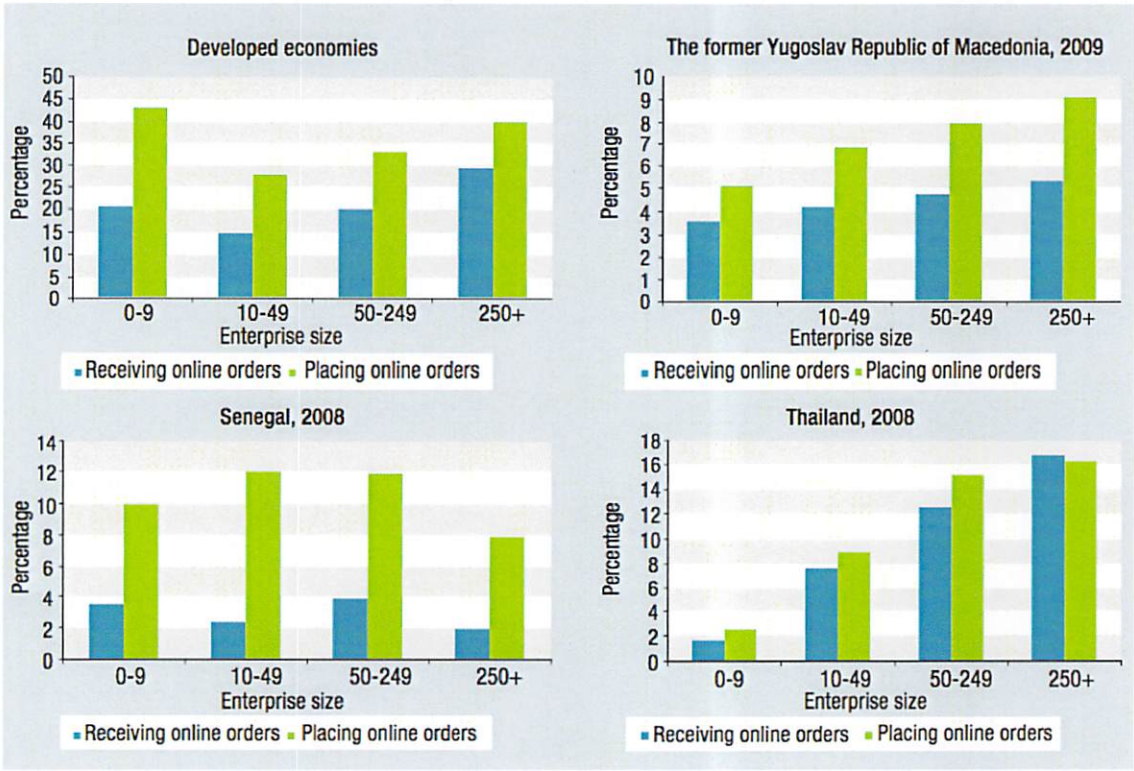
以下の例にならい，残り 3 つの論点およびカテゴリ分類を各自で設定し，答えなさい．

（例）論点 1＝企業の規模の大小，カテゴリ分類＝従業員 50 人未満／従業員 50 人以上

問2. 問 1 で設定した 4 つの論点を使い，グラフから読み取ることができる内容を説明しなさい．300 字以内とし，4 論点およびそのカテゴリ分けについて必ず言及すること．

Figure 1 shows the data on the status of usage of IT of enterprises in some countries, listed on the "INFORMATION ECONOMY REPORT 2011" published by United Nations Conference on Trade and Development (UNCTAD). Answer all the questions below which are related to the data.

Fig.1. Enterprises using the Internet to place and receive orders, selected economies, 2008-2009 (%)



(Note: In Fig.1, "receiving online orders" means the rate of enterprises which receive orders online, and "placing online orders" means the rate of enterprises which place orders online.)

Question 1. It is assumed that at least 4 viewpoints are needed to describe this market. Also, based on those viewpoints, it is needed to define "levels" or "categories" to describe segments on the market.

Following the below example, set the remaining 3 viewpoints.

(example) viewpoint 1 = Number of employees, categories = under 49 / over 50

Question 2. Describe the meaning of the Fig.1 using the viewpoint and levels/categories of Question 1, within 150 words.

【専門科目】問題番号：E-2 【Specialized Subjects】Number: E-2

総務省による平成24年度情報通信白書（以下，白書）の内容について以下の設問にすべて答えなさい.

問1. 総務省では「国民共有の有限稀少な資源」である電波（周波数）を有効利用するとの観点で，ある制度が検討されており白書においてその状況が説明されている.
下記，白書の抜粋文中の①②③④にあてはまる語を答えなさい.

総務省では、我が国における（ ① ）制度（電波の免許人の選定に際し、（ ② ）を実施し、（ ③ ）を（ ② ）した者を有資格者とする制度をいう。）の導入について検討を行うため、平成23年3月から「（ ① ）に関する懇談会」を開催し、同年12月に報告書を取りまとめ、公表した。これを受け、（ ① ）制度の導入を可能とする「電波法の一部を改正する法律案」を第180回国会（常会）に提出した。

具体的には、特定の周波数を用いる（ ④ ）について、総務大臣が定める（ ② ）開設指針に適合する（ ② ）開設計画を申請した者の中から、（ ② ）等により、最も（ ② ）価額の高い者の（ ② ）開設計画を認定する制度を創設するものである。

問2. 白書によれば，総務省では医療のIT化に関して，「EHR（Electronic Health Record）」の導入を政策的に推進している．EHRは，「個人が自分の医療・健康情報（診療情報・健診情報等）を電子的に管理・活用できる仕組み」と説明されるが，我が国が計画するEHRについて下記キーワード群に含まれる言葉をすべて使い，200字以内で説明しなさい.

キーワード：地域，生涯，災害，慢性疾患，医療費の適正化

Answer the questions below related to the whitepaper "Information and Communications in Japan" issued in 2012 from the Ministry of Internal Affairs and Communications (MIC).

Question 1. In terms of effective use of radio frequency, one system has been studied at the MIC. That situation has been described in the whitepaper.
Propose the words appropriate for ①②③④ in the sentences below, which are extracted from the whitepaper.

For the purpose of conducting a study about the system of (①), the MIC held meetings and announced a suggestion (This system qualifies a licensee of a radio frequency through the (②) and chooses a provider which proposed the (③)).
In order to enable the introduction of (①), the MIC has made a draft to amend the part of current Radio Law and it was submitted to the Diet session. More specifically, for mobile phone (④), first, the applicants present their plans of (①) and then MIC investigates matching between their plans and the guideline about (①)defined by MIC. Then a provider which proposed the (③) through the (②) is chosen.

Question 2. According to the whitepaper, the MIC has been promoting the introduction of the EHR (Electronic Health Record), with regards to IT in healthcare. The EHR is the mechanism which enables people to manage and utilize their healthcare/medical information electronically.
Based on this definition, describe Japanese EHR system using ALL the keywords listed below within 100 words.

Keywords: region, lifetime, disaster, chronic diseases, appropriate medical charge

【専門科目】問題番号：E-3 【Specialized Subjects】Number: E-3

以下に示す文は，2012 年 1 月に欧州委員会が発表したデータ保護規程の改定案に関する報道発表資料である．

Brussels, 25 January 2012 - The European Commission has today proposed a comprehensive reform of the EU's 1995 data protection rules to strengthen online privacy rights and boost Europe's digital economy.

（中略）

Key changes in the reform include:

- A single set of rules on data protection, valid across the EU. Unnecessary administrative requirements, such as notification requirements for companies, will be removed. This will save businesses around €2.3 billion a year.
- Instead of the current obligation of all companies to notify all data protection activities to data protection supervisors - a requirement that has led to unnecessary paperwork and costs businesses €130 million per year, the Regulation provides for increased responsibility and accountability for those processing personal data.
- For example, companies and organisations must notify the national supervisory authority of serious data breaches as soon as possible (if feasible within 24 hours).
- Organisations will only have to deal with a single national data protection authority in the EU country where they have their main establishment. Likewise, people can refer to the data protection authority in their country, even when their data is processed by a company based outside the EU. Wherever consent is required for data to be processed, it is clarified that it has to be given explicitly, rather than assumed.
- People will have easier access to their own data and be able to transfer personal data from one service provider to another more easily (right to data portability). This will improve competition among services.
- A 'right to be forgotten' will help people better manage data protection risks online: people will be able to delete their data if there are no legitimate grounds for retaining it.
- EU rules must apply if personal data is handled abroad by companies that are active in the EU market and offer their services to EU citizens.
- Independent national data protection authorities will be strengthened so they can better enforce the EU rules at home. They will be empowered to fine companies that violate EU data protection rules. This can lead to penalties of up to €1 million or up to 2% of the global annual turnover of a company.
- A new Directive will apply general data protection principles and rules for police and

judicial cooperation in criminal matters. The rules will apply to both domestic and cross-border transfers of data.

The Commission's proposals will now be passed on to the European Parliament and EU Member States (meeting in the Council of Ministers) for discussion. They will take effect two years after they have been adopted.

（後略）

Commission proposes a comprehensive reform of the data protection rules

Date: 25/01/2012

http://ec.europa.eu/justice/newsroom/data-protection/news/120125_en.htm

問1. この提言の発表は，ある女性の要人の報道会見として行われた．この人物の名前として正しいものを以下の中から選びなさい．

a. Hillary Rodham Clinton
b. Aung San Suu Kyi
c. Viviane Reding
d. Angela Dorothea Merkel

問2. 文中の忘れられる権利（right to be forgotten）とはどういうものであるか，その具体的に想定される例について述べよ．

問3. データ保護に関する自国の政策について，以下のキーワードを回答文中で必ず使って説明しなさい．

キーワード：個人情報，漏洩，企業，管理，国際

Read the sentences from the press release documents from European Commission on January 25, 2012, then answer the following questions.

Brussels, 25 January 2012 - The European Commission has today proposed a comprehensive reform of the EU's 1995 data protection rules to strengthen online privacy rights and boost Europe's digital economy.

------ *An omission*

Key changes in the reform include:

- A single set of rules on data protection, valid across the EU. Unnecessary administrative requirements, such as notification requirements for companies, will be removed. This will save businesses around €2.3 billion a year.
- Instead of the current obligation of all companies to notify all data protection activities to data protection supervisors - a requirement that has led to unnecessary paperwork and costs businesses €130 million per year, the Regulation provides for increased responsibility and accountability for those processing personal data.
- For example, companies and organisations must notify the national supervisory authority of serious data breaches as soon as possible (if feasible within 24 hours).
- Organisations will only have to deal with a single national data protection authority in the EU country where they have their main establishment. Likewise, people can refer to the data protection authority in their country, even when their data is processed by a company based outside the EU. Wherever consent is required for data to be processed, it is clarified that it has to be given explicitly, rather than assumed.
- People will have easier access to their own data and be able to transfer personal data from one service provider to another more easily (right to data portability). This will improve competition among services.
- A 'right to be forgotten' will help people better manage data protection risks online: people will be able to delete their data if there are no legitimate grounds for retaining it.
- EU rules must apply if personal data is handled abroad by companies that are active in the EU market and offer their services to EU citizens.
- Independent national data protection authorities will be strengthened so they can better enforce the EU rules at home. They will be empowered to fine companies that violate EU data protection rules. This can lead to penalties of up to €1 million or up to 2% of the global annual turnover of a company.
- A new Directive will apply general data protection principles and rules for police and judicial cooperation in criminal matters. The rules will apply to both domestic and cross-border transfers of data.

The Commission's proposals will now be passed on to the European Parliament and EU Member States (meeting in the Council of Ministers) for discussion. They will take effect two years after they have been adopted.

------ *An omission*

Commission proposes a comprehensive reform of the data protection rules

Date: 25/01/2012

http://ec.europa.eu/justice/newsroom/data-protection/news/120125_en.htm

Question 1. A woman politician hosted this press conference. Choose her name from the list shown below.

a. Hillary Rodham Clinton
b. Aung San Suu Kyi
c. Viviane Reding
d. Angela Dorothea Merkel

Question 2. What is the "right to be forgotten" written in these sentences? Describe with practical example.

Question 3. Describe policies of your own country regarding "Data Protection". Use each phrase shown below at least once.

Phrases: "personal data", "breach", "company", "management", "cross-border"