

COVER PAGE FOR AN ONLINE PROCTORED EXAM

Course : national examen ICAIS – Part 2
Course code : 370981-p-0 exam_02
Date : 16 December 2020
Duration : 195 minuten (14:00 – 17:15 uur)
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Students are expected to conduct themselves properly during examinations and to obey any instructions given to them by examiners and proctors.

You're about to take an online exam. Please read the following information carefully. These regulations apply to all online proctored exams.

Code of Honor

Students participating in this exam adhere to the following :

I will take this exam to the best of my abilities, without seeking or accepting the help of any source not explicitly allowed by the conditions of the exam.

Not complying with the statement invalidates the exam for summative use, that is, a grade will not be assigned to your completed exam.

Firm action will be taken in the event academic fraud is discovered.

Points for the afternoon session

Question 1	:	8 points
Question 2	:	8 points
Question 3	:	8 points
Question 4	:	6 points
Question 5	:	20 points
Question 6	:	30 points
Question 7	:	10 points
Question 8	:	10 points
Total afternoon session	:	100 points

This set comprises 8 numbered pages.

Rules

This is an online exam with proctoring. It is an open book exam.

Candidates are allowed to:

- connect a printer to the device on which the exam is made, the printer can only be used to print the exam assignment;
- connect a second monitor to the device on which the exam is made, for the sole purpose of displaying the exam assignment;
- obtain information from the Canvas course to which this exam relates, with the exception of the exercise case solutions, including the case solutions that you have handed in, the reviewers' comments to handed in cases solutions, solutions prepared by others, and the standard solutions (see the following bullet);
- use all materials on paper and electronic media; with the exception of the exercise case solutions, including the case solutions that you have handed in, the reviewers' comments to handed in cases solutions, solutions prepared by others, and the standard solutions, which are permitted on paper only;
- use writing utensils, including pens, pencils, and markers;
- have a one-off short break from the camera, for example, for a toilet visit.

Candidates are NOT allowed to:

- have any form of communication during the exam with anyone other than employees of the exam organization or the education program;
- to search for information via an Internet search engine during the exam;
- have their phone or any other communication device other than the device on which the exam is made switched on;
- talk during the exam.

Requirements for the room in which you take a proctored exam (proctoring setup)

- The lighting in the room must be bright enough to be considered "daylight" quality. Overhead lighting is preferred. If overhead lighting is not available, the source of light must not be behind the student.
- The candidate must be alone in the room.
- The room must be as quiet as possible. Sounds such as music or television are not permitted.

Support

If you encounter technical problems that prevent you from completing the exam, you must report this through the chat function. The chat function is available during the proctoring set-up and throughout the exam.

Important

- Ensure a stable and sufficiently fast internet connection.
- Make sure that the webcam and microphone function properly.
- The candidate is advised to save the exam results regularly.
- The instructions of the examiners and Proctorio must be followed.

- The use of headphones, earplugs or any other type of listening equipment is not permitted unless permission has been given.
- Single-use soundproof earplugs are only allowed if they are shown via the webcam before the exam.
- Answer the questionnaire after the exam to indicate whether unwanted disturbances occurred that might be flagged as an irregularity.

Instruction for uploading answers

- Answers are given in a Word document. Give the file the following name: ICAIS partX_370981_SNR_name_uvtmail
Fill in your own SNR (instead of 'SNR' for example '1234567') and for uvtmail your own Tilburg university e-mail address.
- Upload the exam in Canvas Quizzes, after which you can exit the exam.
- Afterwards you are allowed to print your solution.

Fraud

- In the event of a reported (suspicion of) fraud, the Education and Examination Regulations of the European Post-Master Accountancy program apply.
- Fraud (or an attempt to fraud) on the part of the student is always considered to have been perpetrated in the following cases:
 - a. using someone else's proof of identity;
 - b. having someone else complete or participate in the exam;
 - c. having someone help in completing the exam;
 - d. using or attempting to use unpermitted (digital) sources, resources, or devices for communication during the exam;
 - e. the student is no longer in sight of the webcam and/or has switched off the microphone and other necessary devices needed for online proctoring, while taking the exam, insofar this takes place outside the authorized breaks;
 - f. (attempted) technical modifications that undermine the proctor system.

You can start the exam now, good luck!

YTRA

Organisation

YTRA N.V. (hereinafter YTRA) is a Dutch railroad company that, in various European countries, offers transportation via railroads. Its shares are owned by a number of institutional investors. The municipality of Rotterdam has a minority share of 10%.

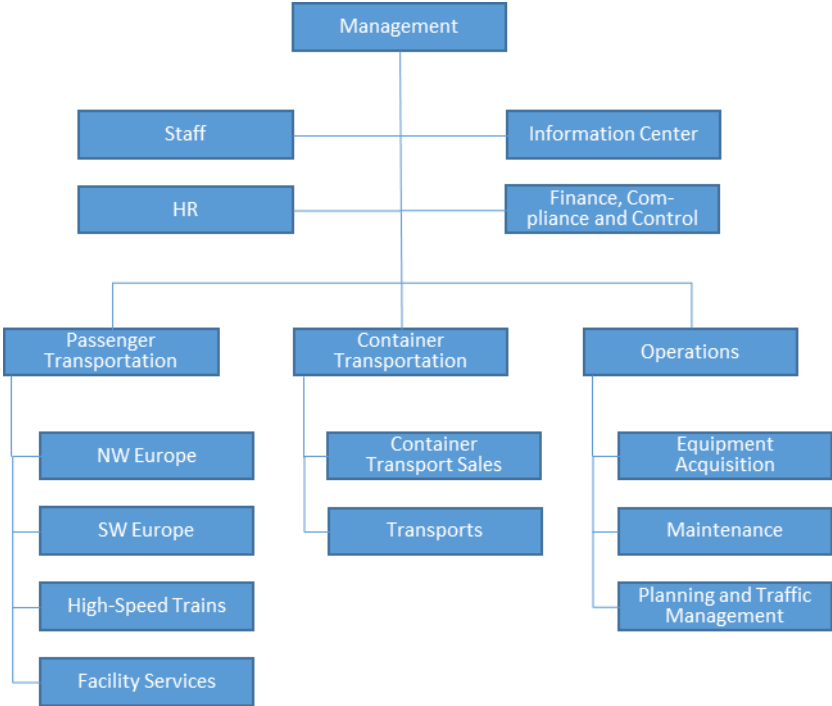
Services

YTRA's services include passenger transportation on local trajectories, national intercity services, international high-speed trains and transportation of sea containers to and from the ports in the Rotterdam Europort.

YTRA has an extensive portfolio of concessions for these transportation services in the Benelux, Germany and France. The company's head office is in Rotterdam. There it has a large marshalling yard with facilities for major maintenance and parking of locomotives, passenger trains, freight trains and other rolling equipment.

Organisation structure

YTRA's organisation structure is as follows:



The management team consists of five persons:

- 1) The general director and chair of the management team is responsible for strategy, information and human resources management. The Staff, Information Center and HR department report to her.

- 2) The director Operations is responsible for the acquisition and maintenance of the equipment fleet, and planning and traffic management. The departments of Equipment Acquisition, Maintenance, and Planning and Traffic Management report to him.
- 3) The director Passenger Transportation is responsible for all types of passenger transportation and the acquisition of concessions. The departments Northwest Europe, Southwest Europe, High-Speed Trains and Facility Services (including customer services and station organization) report to him.
- 4) The director Container Transportation is responsible for all the container transports. The departments Container Transport Sales and Transports (acquisition of equipment for container transportation and planning and execution of transports) report to her.
- 5) The director Finance, Compliance and Control is responsible for the administration and compliance with laws and regulations. The Financial Administration, the Internal Audit Department and the department of Compliance and quality report to her.

Information systems

For its financial administration YTRA uses an ERP system of a renowned vendor with integrated modules for the various business processes. The website and web applications are linked to the ERP system. Consoles at the train stations where passengers can check in with their transportation cards and mobile scanners that are used by the train conductors are linked to the ERP system.

Processes

Passenger transportation

Acquisition of concessions

The Planning and Traffic Management department is charged with managing the concession portfolio for passenger transportation. The concessions are acquired from the government via a public tender. These concessions are on a long-term basis and contain extensive clauses on the quality of the provided services, fines, applicable (safety) laws and regulations, and the fees for using the national infrastructure. The Compliance department provides legal support on the concessions. The concessions contain detailed service quality requirements, including timeliness and cancellation of trains. If these requirements are repeatedly not met, YTRA will be fined.

The concessions for the high-speed railways are issued by an institute from the European Union. The director of High-Speed Trains is charged with managing the concession portfolio for high-speed trains. For that task she is supported by the director Planning and Traffic Management.

Each concession requires YTRA to periodically report on service quality and compliance with applicable (safety) laws and regulations. An important section within this report is safety management.

1. a. With respect to the fees for using the national infrastructure, identify the most important risk regarding the validity of the costs. (3p.)
b. List the controls to mitigate this risk. (5p.)

Acquisition of trains

The trains for passenger transportation are acquired from a number of large international manufacturers. The specifications are partially provided by the Technical department (part of the Maintenance department) and partially by the users. The finishing of the trains (mainly lettering, house style, and customization to specific safety requirements) is done in Rotterdam by the Maintenance department. Payments for the acquired equipment are made in instalments.

The high-speed trains are leased from one of three specialized manufacturers of these trains in Europe for the duration of the concession. These trains are delivered ready-for-use after a test period of a few months. After this test period a concluding investigation is done by a specialized inspection service on behalf of the grantor of the concession. The costs of this investigation are borne by YTRA.

2. a. For the concluding investigation, identify the most important business risk regarding compliance with the test protocols. (3p.)
b. List the controls to mitigate this risk. (5p.)

Maintenance of the trains

Major maintenance of passenger trains by the Maintenance department is done at the marshalling yard in Rotterdam. For minor maintenance contracts are written with a few maintenance service providers. In addition sites are rented for parking the trains and for executing the minor maintenance. This usually takes place at the maintenance service provider's premises.

Maintenance of the high-speed trains is done by the manufacturer in question who has its own workshop in Rotterdam. The trains are regularly checked by an external inspection institute for compliance with the applicable safety requirements. It may occur that the inspection institute issues a use ban.

3. a. For monitoring the maintenance quality by the manufacturers, identify the most important business risk for YTRA. (3p.)
b. List the controls to mitigate this risk. (5p.)

Planning and managing passenger transportation

For the design and execution of the passenger train timetables on local and intercity trajectories YTRA uses the custom-made application DRY that is developed by an external software vendor. The department of Planning and Traffic Management composes the timetables. These timetables are periodically adjusted. All trains have cameras. The conductors and drivers have radio communication devices that are directly connected to traffic management.

Ticket sales for passenger transportation

YTRA solely sells tickets via its web application LIC. After payment the traveller receives a digital ticket with a bar code that has to be scanned at the train station before the ride starts. On return tickets a discount of 20% is given. The ticket price is dependent upon the number of kilometers, with the price per kilometer decreasing when the travel distance becomes longer. On local trajectories bikes can be taken into the trains at a fixed rate. Each train has at least one conductor who has to check at least 30% of all the passengers. The fine for fare-dodging is € 100,-.

For the high-speed trains (HST) seats are assigned. There are two classes of transportation and only one-way tickets are offered. The ticket price for HST is calculated via an algorithm that uses the time, occupancy of previous rides and the actual reservations. Travellers that regularly use the HST can register for a customer card that entitles them to a discount that is dependent upon the number of collected kilometers. Each high-speed train has a team of conductors who check all the passengers. The fine for fare-dodging is 50% of the full trajectory price and has to be paid jointly with the ticket price. If the passenger in question is not able to make this payment he will be transferred to the railroad police at the next train station.

4. Classify YTRA's revenues from passenger transportation in the typology of organizations. (6p.)
5.
 - a. Describe the preventive and detective controls regarding the accuracy of the algorithm that calculates the HST ticket prices. (8p.)
 - b. Give a systematic list of the tests of relationships, reconciliations and analytical reviews regarding the revenues from high-speed trains. (8p.)
 - c. Do you find it necessary that the occupied seats in the trains are regularly counted in view of assessing the completeness of revenues from high-speed trains? (4p.)

Container transportation

Writing transportation contracts

YTRA has a long-term European concession for the transportation of sea containers from and to the Europort. Eighty percent of the revenues consists of transports for around 100 regular customers. These are contracts with a duration of multiple years. The contracts contain the volumes to be transported, the prices per kilometer per container, volume-dependent discount tables per year, and fines for late delivery.

The other transportation contracts pertain to one-off transports. With these transports YTRA avoids empty trains returning to the Europort. For these contracts YTRA registers at the international container transportation auction in Hamburg, where contracts are granted to the lowest bidder. The auction charges a 2% commission to the winner of the bid. It regularly occurs that bids below the cost price are made.

Acquisition of rolling equipment

The rolling equipment – locomotives and container wagons – for goods transportation is mainly second-hand. It is acquired from international traders. The division Container Transportation has a number of specialized purchasers with substantial discretionary power regarding these acquisitions. Sometimes equipment is purchased in anticipation of future use. It regularly occurs that container wagons are being sold.

Part of YTRA's marshalling yard in Rotterdam is dedicated for repair, maintenance and parking of the equipment. Container Transportation has its own workshop.

Planning and monitoring container transports

The transports are planned and monitored by the department of Transports. All trains and wagons have GPS beacons, cameras on top of and inside the locomotives, and the drivers have a work station that is connected to traffic management.

For planning and monitoring of the container transports the department uses the custom-made application PCT that is developed in-house. Using GPS technology PCT monitors the movement and position of the rolling equipment.

6. Give a detailed process description of executing a one-off transportation contract, from writing the contract, planning and transportation to billing the customer. (30 points)

7.
 - a. How can the GPS technology in container transportation be used for assessing the completeness of revenues? (5p.)
 - b. Describe the measures that need to be put in place to enable the use of GPS technology. (5p.)

Management information

Periodically, management receives the following information in relation to previous years and the forecast:

- balance sheet, income statement and cash-flow statement;
 - revenues and gross margins, per type of transportation, country, concessions and trajectories;
 - capacity usage, investments and depreciations of the equipment fleet;
 - concession portfolio, including pending registrations of concessions;
 - quality analyses of the transportation of people, inspection results and paid fines; and
 - development of the organisation costs (overhead).
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8. What data must be recorded to enable the execution of the quality analyses of passenger transportation, the inspection results and the paid fines? Also indicate how and where this data is recorded. (10 points)