

## Intermediate Level      Systems and Project Management

# 10

# ISPM

22 May 2003

Thursday morning

### INSTRUCTIONS TO CANDIDATES

Read this page before you look at the questions

You are allowed three hours to answer this question paper.

ALL questions are based on the scenario, which is on pages 2 – 5.

Answer the THREE questions in section A (these questions are on pages which are detachable).

Answer ONE question ONLY from section B (these questions are on a page which is also detachable).

Write your examination number in the boxes provided on the front of the answer book.

Write ISPM on the line marked "Subject" on the front of the answer book.

Do NOT write your name or your student registration number anywhere on your answer book.

Tick the appropriate boxes on the front of the answer book to indicate which questions you have answered.

## SCENARIO

READ THIS SCENARIO FIRST

ALL QUESTIONS ARE BASED UPON THIS SCENARIO

THE QUESTIONS ARE IN TWO SECTIONS AND FOLLOW THE SCENARIO.

ANSWER ALL THREE QUESTIONS IN SECTION A AND ONE ONLY FROM SECTION B.

---

### **Background**

Total Learning Experience (TLE) is a training organisation set up twenty years ago by the current owners, Jack and Linda Grey. TLE provides a wide range of training courses both locally and nationally. These courses include professional tuition for trainee accountants, business management training (including presentation skills, communication techniques and negotiation skills) and specialist training courses (for example, insurance, banking and law). It is a financially successful business and very highly regarded as a national training organisation.

For the last 8 years, TLE has held the "Quality Attainment" certificate awarded by the professional accounting institute for which it provides accounting courses. This is awarded to training providers who demonstrate the attainment of high standards in teaching and course management. Since 1990, TLE has operated from a city centre premises with six training rooms, a student common room and three administrative offices (currently one for administration staff and tutors, one for accounts and one for the two owners).

### **The organisation**

#### **Teaching staff**

TLE employs 10 full-time tutors. TLE also uses 8 freelance tutors who are hired mainly to undertake the specialist training courses. Seven of the 10 full-time tutors and all the freelance tutors are based at home, and only come into the offices if teaching, or to pick up timetables or course materials. Most of the tutors have their own computers at home.

#### **Administration and accounting staff**

All administration staff are based permanently in the TLE offices. This includes the office manager, Wendy White, who has been with TLE since 1990. She is responsible for course management, timetabling and course materials management (including responsibility for the management of examination papers). Wendy has an administration assistant to help in the day-to-day running of the administrative functions, including management of course bookings. Course bookings refers to all activities relating to students / clients enrolling on their chosen training course (see "*Course booking system*" on page 4).

Also based in the offices is the finance manager, John Brown. He started working for TLE three years ago and is responsible for all financial and management accounting activities and general IT issues. There is also an accounts clerk who is responsible for data entry to the accounting system used by TLE. This includes invoicing, payments and payroll.

### **Information technology position 1995 to 2000**

Before moving to the city centre offices, Jack and Linda kept all business records (including the accounts) and course materials manually. When Wendy White joined TLE in 1990, she took responsibility for the manual system and she believed that computers were "totally unnecessary". Between 1990 and 1995, she re-designed many of the filing systems and hand-written records kept by TLE and developed her own very well-organised manual record-keeping system. However, as the number and range of courses developed and the business grew, it became clear to Jack and Linda that this system was no longer sufficient. A number

of billing errors had occurred, timetables were sometimes incorrect and both business clients and students had complained about poor / late course information. In 1995, TLE invested in an IBM minicomputer to be used for all administrative functions carried out by Wendy and a standalone desktop PC for use by the tutors (there were five tutors in 1995) to prepare course materials. In addition, a black-and-white ink-jet printer was purchased and shared between the two computers. Both the minicomputer and the PC were equipped with a basic applications software package, including word processing, spreadsheet and desktop publishing facilities. Wendy transferred all of her manual student records into a "student file", the business client data into a "client file" and course data into a "courses file". (Note: all of these were separate word processing documents.) Wendy transferred the timetabling information onto a number of spreadsheet files.

### ***Information technology position 2000 to 2003***

On his arrival in June 2000, John Brown's first task was to upgrade the existing computers. The most up-to-date operating system was installed and the latest versions of the application packages were also purchased. John also purchased three additional PCs: one for the administration assistant, one for the accounts clerk and one for his own use. He also introduced an off-the-shelf accounting package, which was installed onto the accounts PC, to carry out the basic accounting and financial reporting functions. An off-the-shelf database software package was also installed on all of the computers, but it is rarely used as the staff have not been trained in how to use it. Additional purchases included one fax machine and one photocopier. All of the computers were standalone.

The three office-based tutors share the use of the original office PC bought in 1995 to prepare course material but often complain about the lack of computer availability. They often resort to using the administration and accounts computers early in the morning or at the end of the teaching day. There are no password systems currently in use on any of the administrative or accounts computers. Both accounts and administration information is backed up on CD at the end of every month. These discs are then stored in Jack and Linda's office.

### ***Timetable management***

All of the professional accounting courses are delivered in the six TLE training rooms. The usage of the rooms is planned and timetabled several months in advance by Wendy. This information is kept on a large whiteboard in Wendy's office and highlights the rooms in use, by which course, at what time and by which tutor. Wendy uses this information to produce a weekly usage forecast spreadsheet for each room, which is produced each Friday and posted on the door of each room on Monday morning. (Note: a timetabling software package is available, but Wendy considers that her own whiteboard system and spreadsheets are perfectly sufficient.)

Timetabling of staff is done by means of a diary system. Each tutor has his or her own diary which is kept by the administration assistant. She is responsible for filling in the diary for each tutor and then sending this monthly (one month in advance, so the teaching diary for January is sent out in December) to each home-based tutor by post or fax. It is the responsibility of all tutors to let the administration assistant know which days they are unavailable (such as holiday commitments) at least six weeks in advance. Ideally, the administration assistant should call all tutors at least once a week, but often (due to pressures of time) she does not achieve this. When an off-site course enquiry for business management training is received, the administration assistant provisionally books out the appropriate day in the tutor's diary and then informs the tutor the month before the course is due to be delivered.

## **Course booking system**

### ***Professional courses***

Six weeks prior to the start of a professional course, standard pre-printed booking forms (produced by a local firm of printers) are sent to all students currently listed on the student file held by Wendy. Other booking forms are sent as and when requested (by phone or by a posted tear-off slip included in local newspaper advertisements or leaflets posted to all registered students in the local area).

On receipt of completed booking forms, new and updated student details are entered onto the student file which is then used to update the course file and produce the course register. The administration assistant prints and copies the updated student file and passes it to the accounts clerk who enters the details into the accounts customer file to provide information for billing.

When students arrive on the first day of the course, they are required to bring with them a cheque for payment of the course fees. These cheques are put into a safety deposit box in the main administration office and collected at the end of each week before they are put into the bank. There is no current security code or lock on any of the office doors.

### ***Business management skills and specialist courses***

Business management training courses are normally delivered at the specific request of the client organisation. Many of these courses are repeat work for large companies and much work is generated by word-of-mouth recommendations, due to the high standards of course delivery. Course details are discussed between the client organisation and TLE, using the tutor diaries kept by the administration assistant to check tutor availability. On agreement, tutor diaries are updated, client files are updated and the information is passed to the accounts clerk for invoicing.

During the weeks when the training rooms are not being used by professional accounting courses, TLE utilises the time by offering a range of specialist training courses. These are timetabled and agreed with the freelance tutors some months in advance of delivery. They are advertised in specialist journals and magazines, in the local and national press and by advertising mail shots sent to organisations such as banks, solicitors, consultants and insurance companies. Booking forms are issued when a client rings the advertised telephone number or returns a tear-off slip from the mail shot.

## **Recent problems**

Although TLE has maintained a strong reputation for high-quality course delivery, in the last year there have been a number of problems.

- A presentation skills course due to be delivered to a new client at their premises had to be cancelled at short notice because of double booking of the tutor. The client has refused to use TLE again.
- A number of mock examination papers went missing as the filing cabinet in which they were kept (in the administration office) was left unlocked one lunchtime. The professional body has expressed its dissatisfaction with this lack of care and intends to review TLE's quality accreditation status.
- A number of past students were sent invoices for courses which they did not attend. Their details were entered onto the sales ledger incorrectly after the student file was copied by the administration assistant to the accounts clerk. There have been a number of billing queries, mainly due to the difference in the information held by accounts and administration about clients and students.

### ***Staff meeting – March 2003***

Jack and Linda held a staff meeting for all tutors and office staff in order to review the current position and to suggest ways to improve. They also wished to discuss with the team the news that a national training organisation had just opened nearby. This organisation is promoting its courses heavily and has its own website (something which TLE does not currently have) offering on-line booking facilities. During the meeting the staff raised a number of issues which included the following:

#### ***Administration staff issues:***

- difficulties in managing tutor diaries;
- inefficiencies in course bookings;
- too much paperwork and time spent copying and printing files;
- open access to administration offices.

#### ***Tutor issues:***

- lack of facilities for material preparation;
- poor communication between office and home;
- difficulties in contacting the office if teaching off-site;
- duplication of materials on different courses.

#### ***Accounting issues:***

- duplication of records kept in accounting and administration systems;
- security of both cash and computerised information.

John Brown suggested that many of the problems raised during the meeting could be solved by introducing a more appropriate information system. He particularly emphasised the need for the introduction of an office network and a facility to allow on-line booking procedures. Jack and Linda admit to knowing little about information systems or how to proceed with such a project. John himself does not think that he has the necessary skills and experience to manage such a project and suggests that an outside firm of consultants should be used.

You are a project manager, working for a local firm of consultants. You recently received a phone call from John Brown asking for your organisation's assistance in the project.

---

*This page is detachable so that you can see the information  
in the scenario at the same time as the questions*

---

**SECTION A – 80 MARKS**

*Read the scenario before you attempt the questions*

**ANSWER ALL THREE QUESTIONS**

---

**Question One**

John Brown of TLE has asked for some advice on the development of TLE's information systems. You have visited the premises and talked to the staff of TLE.

***Required:***

- (a) Write an internal memorandum to all TLE staff evaluating the main weaknesses of the current information system. This should include an evaluation of:
- (i) the current hardware facilities;
  - (ii) the current software facilities;
  - (iii) the current course booking system;
  - (iv) the current timetable management system.
- (16 marks)***
- (b) Prepare a report for the two owners, explaining your outline recommendations for an updated information system for TLE. This should include the following:
- (i) the hardware required (including peripheral devices and any non-office based equipment);
  - (ii) the software required;
  - (iii) a diagram of an appropriate systems architecture;
  - (iv) any additional support which would be required from the consultants over the next 12 months.
- (18 marks)***
- (Total = 34 marks)***
-

## Question Two

Jack and Linda have asked you to provide them with an outline of the main project management issues which need to be considered.

### *Required:*

- (a) Prepare a brief presentation, including overhead slides, along with accompanying explanatory notes. This should identify the issues which Jack and Linda would need to consider both *during* and *after* the project, under each of the following headings:
- (i) customer service considerations *(that is, the use of the information system to ensure high levels of customer service);*
  - (ii) marketing considerations *(that is, the use of the information system for marketing purposes);*
  - (iii) financial considerations *(that is, the financial costs of developing and operating the information system);*
  - (iv) staff considerations *(that is, the effect of the information system upon staff);*
  - (v) administration considerations *(that is, how the information system should be managed).*
- (20 marks)
- (b) Prepare a set of briefing notes which
- (i) explain the skills required of the project manager of this information systems development project;
  - (ii) explain the role of the tutors and administrative staff in the project.
- (8 marks)  
(Total = 28 marks)
- 

## Question Three

As a result of the recent theft of examination papers, the professional accounting body has informed TLE that it intends to review its quality accreditation status. This problem has highlighted to Jack and Linda the need to review their current security arrangements throughout the whole of TLE.

Jack and Linda have asked you to prepare an internal memorandum to all of the staff to highlight the current security problems of TLE and to emphasise the importance of quality accreditation.

### *Required:*

- (a) Prepare the first part of the memorandum requested by Jack and Linda. This should include
- (i) an evaluation of current office security and two recommendations for improvement;
  - (ii) an evaluation of current data security (both physical and electronic data) and two recommendations for improvement.
- (12 marks)
- (b) Prepare the second part of the memorandum. This should explain the importance of the quality assurance certificate to TLE.
- (6 marks)  
(Total = 18 marks)
-

*This page is detachable so that you can see the information  
in the scenario at the same time as the questions*

---

**SECTION B – 20 MARKS**

*Read the scenario before you attempt a question*

**ANSWER ONE QUESTION ONLY**

---

**Question Four**

(a) Discuss the advantages and disadvantages of:

- (i) in-house developed information systems;
- (ii) externally developed information systems.

(Assume that the information systems are bespoke, that is, that they are being developed specifically to match the requirements of the organisation.)

*(12 marks)*

(b) Prepare an outline plan for the audit of a systems development project.

*(8 marks)*

*(Total = 20 marks)*

---

**Question Five**

(a) Explain **four** features of networked computerised environments which cause problems when auditing networked computerised systems.

*(12 marks)*

(b) Explain the importance of a quality plan in order to maintain appropriate quality standards during the systems development process.

*(8 marks)*

*(Total = 20 marks)*

---

*End of paper*