Chapter 1

The correct answer for each question is indicated by a ✓.

1   Which of the following is least likely to serve as information from the perspective of your teacher?

⦿**A)** Your score for this multiple choice test.

✓ ○**B)** Your height on your 10th birthday.

○**C)** Which class you belong to.

Feedback: Your teacher could use this to assess your learning, so it would be useful information.

2   Which of the following is a good reason for considering a railway signalman as an information worker?

✓ ⦿**A)** His job depends on knowledge and communication.

○**B)** His job could be easily automated.

○**C)** His job affects the safety of people he doesn't know.

Feedback: Yes, that's a good way to describe an information worker. It is a mistake to think information work must involve computers.

3   **Which of the following is a characteristic of all systems?**

○**A)** A limitation.

✓ ⦿**B)** A boundary.

○**C)** A threshold.

Feedback: Yes, all systems have a boundary chosen by the person who has decided to think about it as a system.

4   Which of the following statements is not true?

✓ ○**A)** No useful information system could exist without modern information technology.

⦿**B)** Many information systems existed in a different form before the invention of modern information technology.

○**C)** Some information systems are only possible because of modern information technology.

Feedback: Most things we do using modern information technology are not new in themselves – we have kept records, processed accounts, calculated wages, etc. for thousands of years.

5   **Which of the following is the best description of emergent properties?**

○**A)** Properties that emerge over time as a system matures, but are not there at the beginning.

○**B)** Properties that emerge as soon as a system is switched on, but are not there when it is switched off.

✓ ⦿**C)** Properties that are shown only by the system as a whole, but are not shown by its parts.

Feedback: That's right.

6   Which of the following is an example of positive feedback?

✓ ⦿**A)** Rewarding a student for passing an assignment.

○**B)** Telling a student how to pass an assignment.

○**C)** Punishing a student for failing an assignment.

Feedback: Yes. Positive feedback works by reinforcing the system's behaviour to produce more of a given output.

7   Which of the following statements best describes negative feedback?

✓ ⦿**A)** Control signals that act to maintain a pre-determined level of output.

○**B)** Control signals that act to reduce overall output.

○**C)** Control signals that act to oppose hostile forces in the environment.

Feedback: Yes. Negative feedback works by limiting the system's output when it gets too far above or below a standard that has been set.

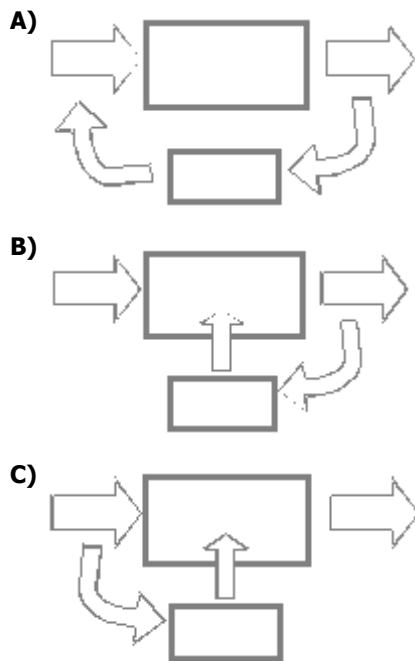**8**   **Which of the following is the best definition of 'subsystem'?**

A) Something that is controlled by another system.

B) Something that provides an input to a system.

✓ **C)** A part of a system that can be regarded as a system in its own right.

Feedback: Exactly.

9   Which of these diagrams illustrates a feedback control loop?

A)

✓ B)

C)

Feedback: That's right. The control subsystem is sampling outputs and controlling the system's behavior.

10 Which of the following statements gives the best general description of the purpose of control subsystems?

A) To switch a system on or off so that a constant level of output is achieved.

B) To adjust the functioning of a system so that it produces the maximum possible quantity of output.

✓ C) To adjust the functioning of a system so as to keep some measurement of its performance or of its outputs within a predetermined range.

11 Systems analysis often begins by defining the boundary of the system that is under investigation. This is so that:

✓ A) The analyst does not waste time or effort on matters that are not relevant to the present study.

B) The analyst does not get into fights with the managers of other departments.

C) The analyst does not get out of his or her depth by studying things that are too hard to understand.

12 Which of the following best describes the views of Peter Check land?

A) Systems are a mental construct and do not exist in the real world.

✓ B) Regardless of whether or not a system is real, it is often useful to think about a problem situation as if it were a system.

C) Systems are out there in the real world waiting to be discovered.

13 **Which of the following statements best describes an interface in General Systems Theory?**

A) A screen that allows users to perform functions and to access the data within a system.

B) An electronic connection between two systems those are located in different places.

✓ C) Any form of communication between different systems or subsystems.

14 Which of the following is **not** an example of purposeful control in a system?

A) An alteration in the Bank of England base lending (interest) rate.

✓ B) A sudden change in the weather that damages a crop just before it becomes ready for harvest.

C) A change in the tactics of a football team when a successful goal takes them into the lead.

15 **Which of the following statements correctly distinguishes information from data?**

✓ A) Information is directly relevant to an action or decision in some situation, whereas data has no specific must first be organized in some way to make it useful.

B) Information is quite rare whereas there is always a lot of data available.

C) Information is sorted into alphanumerical sequence whereas data is random.

16 **What is the main purpose of an operational system?**

A) To assist a surgeon in carrying out an operation such as keyhole surgery.

B) To help tactical managers to make decisions about current operations.

✓ C) To automate the routine tasks and activities in an organization.

17 **Which of the following best describes the primary purpose of a management support system?**

A) To relieve managers of work.

B) To replace managers.

✓ **C)** To help managers to do their work.

18 Which of the following statements best agrees with the approach taken by the authors of this book?

A) Managers should always make sure that their organization has information systems that make the best use of the very latest in information technology.

✓ **B)** Managers should only install information technology that is needed to implement information systems that their organization really needs.

C) Managers should make sure that the information systems and information technology in their organization are always at the leading edge of their industry.

19 **Which of the following statements best describes business strategy?**

✓ **A)** A business strategy identifies the long-term business goals and the main steps that will help to achieve them.

B) A business strategy identifies the strengths and weaknesses of the business and what can be done about them.

C) A business strategy identifies the steps that add value to the business and how to carry them out most profitably.

Chapter 2

The correct answer for each question is indicated by a ✓.

1 Approximately what proportion of information systems projects in the US were said to have failed by the 2001 Standish Group report?

A) A fifth.

B) A third.

✓ **C)** A quarter.

Feedback: No, it was worse than that.

2 **Which of the following correctly describes vaporware?**

✓ **A)** Software that is talked about but never released.

B) Software that doesn't work correctly when it is used.

C) Software that users don't want.

Feedback: Yes, and it seems to have been very common.

3 **Which of the following is not an end user role?**

A) A manager who uses a printed report output from a system in carrying out a task.

B) A clerk who manually enters data into a computer system.

✓ **C)** A sales assistant who records data on a printed form to be input into a computer system.

Feedback: No, a manager who does that is using the system, albeit in an indirect way.

4 Which of the following problems is not concerned with the usability of the system in question?

✓ **A)** A computerized till system that requires shop assistants to enter a fictitious price for items that are actually free.

B) A system where the same function key performs different actions on different screens.

C) An error message that is meaningless to the typical user.

Feedback: Yes. This is a matter of function, not usability.

5 **Which of the following statements is the best description of a functional system?**

A) A system that was designed to meet a real business need.

B) A system that was delivered on time and within budget.

✓ **C)** A system that carries out all the tasks that are needed by its users.

Feedback: Yes. Though you might want to add "correctly" to this definition.

6 The first attempt to computerize the London Ambulance Service emergency despatch system was abandoned in 1992 for which of the following reasons?

A) The emergency despatch operators did not like working with the new computerized map displays.

✓ **B)** The new system proved slower to despatch ambulances to emergencies than the previous manual method of operation.

C) The new system was not delivered in time.

Feedback: That wouldn't be a good reason to abandon it after delivery!

7 Which of the following is not a characteristic of the client role in relation to a development project?

A) A client has influence over whether a project is allowed to start.

✓ **B)** A client has the right to sack members of the project team for poor performance.

C)A client has the power to stop a project after it has started.

8 Which of the following would **not** reasonably be considered a time-critical project?

    A)A project that must be completed on time to meet legislative requirements.

    B)A project that must be completed quickly to give a business a competitive edge over its business rivals.

✓ **C)**A project whose schedule is running very late.

Feedback: That would make it time-critical, as there will be penalties for late delivery.

9 Which of the following best describes requirements drift?

✓ **A)**Incremental changes to the requirements for the new system that occur as the project progresses.

    B)The demand from users for new functions to be added to a software system after delivery.

    C)A tendency for different members of a project team to interpret any given requirement in a different way.

Feedback: If disagreements like this were not discussed and resolved, they would be likely to cause complete chaos, not drift.

10 Which of the following is **not** a cause of requirements drift?

    A)Users may ask for more features to be included in the software as they learn more about what is available.

    B)Business needs can change during the course of the project due to external events.

✓ **C)**The systems developers may not be skilled in the particular techniques or programming languages that are being used to develop the software.

Feedback: That is a common (and justifiable) reason for requirements changing during a project.

11 Which of the following best describes the need to maintain adequate documentation of the models produced during software development?

✓ **A)**Other developers may need to understand the details of a piece of software, either in order to modify it, or to modify another part of the system that depends on it in some way.

    B)A project manager may need to assess the work output of developers so that the progress of the project can be monitored.

    C)A project manager may need to identify the developer who was responsible for designing or coding a part of the system so that he or she can be held accountable for any bugs or errors.

Feedback: That is a useful thing to do, but it is not the main reason for documenting system models.

12 Which of the following is **not** a quality problem in software development?

    A)User requirements are not identified correctly.

✓ **B)**Business needs change before the software can be delivered.

    C)There is no clear business reason to undertake the project.

Feedback: No, that affects the quality of the software. If no-one knows what it should do, then how can you tell if the software meets a need?

13 Which of the following is not a productivity problem in software development?

    A)The project is behind schedule and over-budget, but the software is still not complete.

    B)During the implementation stage, it proves difficult to integrate the different software components.

✓ **C)**The project is cancelled due to internal politics in the organization.

Feedback: Yes. That is a matter of politics, not productivity.

14 Which of the following is least likely to have a damaging impact on the usability of an information system?

    A)The designers are working under considerable pressure and, to save time, decide that they will not demonstrate the prototype screens to users, as originally planned.

✓ **B)**The programmers are running behind schedule and, to save time, decide to reduce the amount of documentation that they will write within their code.

    C)The analysts believe that, since they have previously worked on a similar system for another company, there is no need to spend time on observing the way that users carry out their tasks.

Feedback: No. The analysts may be mistaken in thinking the two systems are similar, and as a result the design of the interface may be inappropriate for these users.

15 Which of the following is **not** an important consideration when a company is trying to decide whether it should begin to do business on the Internet?

✓ **A)**The design of the website.

    B)The possible need for internal reorganization.

    C)The business aims that will be met.

16 Which of the following would be the most appropriate strategy when a project is stalled by an escalating workload of dealing with changes to the system requested by users?

    A)Increase the number of staff employed on the project.

B) Increase the project budget.

✓ **C)** Limit the number of changes.

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17 Which of the following best describes the reason for the crash of the online clothes retailer Boo.com in 2000?

A) Potential customers in the UK were not yet comfortable with shopping online.

B) At the time, too few customers had confidence in the security measures for online payment transactions.

✓ **C)** The website software crashed on most PCs and images were slow to download, with the result that too few customers bought from the company.

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18 **Which of the following best describes a stakeholder in relation to an information systems development project?**

✓ **A)** Someone who is likely to be affected in some way by the system or by the process of its development.

B) Someone who stands to gain financially from the system.

C) Someone whose job will change as a result of the introduction of the system.

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19 Which of the following is not relevant legislation for information systems developers in the United Kingdom?

A) The Computer Misuse Act (1990).

✓ **B)** The Freedom of Information Act (1997).

C) The Data Protection Act (1998).

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20 Which of the following is the best definition of ethics?

A) A set of rules that apply to members of a professional association and give instruction on how to behave in certain circumstances.

✓ **B)** A branch of philosophy that deals with the rightness or wrongness of human character and conduct.

⦿ **C)** A collection of parables that illustrate the various dilemmas that can occur in daily life.

Feedback: No. You could use a set of parables to communicate a code of ethics, but a fully developed ethical code should also contain a set of general principles.

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21 Which of the following is least likely to be considered as an ethical consequence of information systems development?

A) Some staff may lose their jobs due to the automation of certain tasks.

✓ **B)** A new operating system may make it easier for users to customize the appearance of their computer screen.

C) A new computer system may make it possible to gather and store more detailed personal information about individuals.

Feedback: No. That is clearly an ethical consequence of developing the system.