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Question 1

Simon is responsible for scheduling the weekly meetings of four sporting clubs at his campus. The meetings are to be held at lunchtimes, Monday to Friday. Each club has one meeting each week.

All the clubs are able to meet in any lunchtime when they do not have training. The clubs train at lunchtime(s) on the following days (Table 1):

Table 1

Club	Training Days
Netball Mountaineering Triathlon Orienteering	Mondays and Wednesdays Tuesdays Mondays and Thursdays Fridays

- People who join a club **must** attend all training sessions for that club.
- 1 Simon draws up four possible schedules for the meetings, shown below.

Which one of these schedules does **not** involve a clash with a club's training?

A

	M	Tu	\mathbf{W}	Th	F
N					*
M	*				
N M T O				*	
\mathbf{o}			*	X	J'

D

	M	Tu	\mathbf{W}	Th	F
N		*			
N M T				*	
T			*		
0					*

В

	M	Tu	W	*Th	F
N		-	7		*
N M T O	*				
T		*			
O			*		

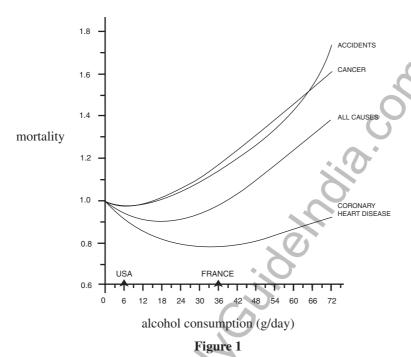
E All four schedules involve a clash.

 \mathbf{C}

	M	Tu	W	Th	F
N					*
N M T		*			
T			*		
0	*				

Ouestions 2 and 3

Figure 1 shows the results of a study carried out in the USA. Approximately 250 000 men were followed over 12 years, and for those who died, the cause of death was established. The graph shows the variation with average alcohol intake of the mortality rate for three such causes, together with the variation in mortality rate from all causes. Coronary Heart Disease (CHD) is a particular and common cardiovascular disease. Mortality rates are shown as a proportion of the deaths that occur with zero alcohol intake. Also shown are the average alcohol intakes for USA and France.



- According to Figure 1, compared with men who consume little or no alcohol, men who regularly consume 18 g of alcohol (about one standard drink) per day are most likely to show mortality rates that are
 - A decreased for CHD and accidents, and increased for cancer.
 - **B** decreased for CHD and cancer and increased for accidents.
 - C decreased for CHD and unchanged for accidents and cancer.
 - **D** increased for CHD and accidents, and increased for cancer.
 - E increased for CHD and unchanged for accidents and cancer.
- 3 Suppose that all relevant factors in a French population of males are similar to those for the men in this US study, except for levels of daily alcohol consumption.

Which one of the following is the best estimate of the expected mortality from CHD for French men compared with that for US men?

- A About 15% less.
- **B** About 30% less.
- **C** About the same.
- **D** About 15% more.
- E About 30% more.

Questions 4 and 5

Aurora, Boulder and Central are three centres in South City. Travelling from Aurora to Central involves catching a bus from Aurora to Boulder, and a tram from Boulder to Central. The travel time for each of these trips is:

Aurora $\xrightarrow{\text{bus}}$ $\xrightarrow{\text{14 minutes}}$ **Boulder** $\xrightarrow{\text{9 minutes}}$ **Central**

Unless stated otherwise, assume that:

- buses leave Aurora every 10 minutes and trams leave Boulder every 15 minutes;
- the time taken for a person to transfer between vehicles is negligible;
- · all vehicles leave exactly on time; and
- journeys are not interrupted.

Suppose that a bus arriving at Boulder immediately returns to Aurora where it waits for the next scheduled leaving time. Similarly, trams immediately return from Central.

What is the shortest time that a bus would have to wait at Aurora after it has returned from Boulder?

A 2 minutes

D 10 minutes

B 4 minutes

E 12 minutes

C 8 minutes

What is the minimum number of buses and trams needed to provide the service between Aurora and Central?

A 2 buses and 2 trams

D 3 buses and 3 trams

B 2 buses and 3 trams

E 3 buses and 4 trams

C 3 buses and 2 trams

Questions 6 - 8

A school needs to assign staff to teach five subjects to a Year 8 class. For this class, each week there are 5 lessons of English, 4 lessons of Mathematics, 3 lessons of Science, 3 lessons of History and 3 lessons of Social Studies.

Table 1 indicates the teachers that are available to teach Year 8, the number of lessons each teacher has available to teach Year 8 and the subjects they can teach. Note that the same teacher must teach a subject to a class throughout the week.

Table 1

Teacher	Number of lessons the teacher can teach	Subjects the teacher teaches
Kim	8	History, Social Studies and English
Van	7	Mathematics and Science
Sue	6	History and Social Studies
Jenny	6	English and Social Studies
Nick	6	Mathematics and Science

- 6 By how much does the total number of lessons that the five teachers can teach exceed the number of lessons required to teach the five subjects to the Year 8 class?
 - A 18 lessons more
 - **B** 17 lessons more
 - C 15 lessons more
 - **D** 13 lessons more
 - E 12 lessons more
- What is the minimum number of these five teachers needed to teach the five subjects to the Year 8 class?
 - A two
 - B three
 - C four
 - **D** five
 - E It is not possible to teach all of these subjects with just these teachers.
- 8 The teachers try to arrange it so that, after they are assigned to teach the five subjects to the Year 8 class, each teacher has three lessons free when they are not teaching.

Is this possible?

- A This would be possible if Kim taught English and Van taught Mathematics.
- **B** This would be possible if Kim taught English and Nick taught Mathematics.
- C This would be possible if Jenny taught English and Van taught Mathematics.
- D This would be possible if Jenny taught English and Nick taught Mathematics.
- **E** It is not possible.

Questions 9 - 11

If the drinking water in a particular area is naturally low in minerals, sodium fluoride can be added to the water supply in order to help children develop healthy teeth. The following passage is adapted from a magazine article on fluoridation of drinking water.

The pro-fluoride lobby tends to be passionate about fluoridating water supplies because they believe the benefits — in reducing caries¹ — are so self-evident. The anti-fluoride brigade can be just as forceful in putting their concerns, which often reflect mistrust of scientific assurances about the safety of fluoridation.

Ironically, public support for fluoridation seems to have fallen at the same time as caries rates in children have declined — in 1977, 90% of 12-year-old Australian children had caries, compared with 46% in 1994. Water fluoridation can't take all the credit for this improvement, but a comparison of caries rates in Brisbane (the only capital city not to fluoridate water) with fluoridated Townsville highlights its important role.

¹ Caries: tooth decay

Carres, tooth decay

- **9** The passage implies that caries rates
 - A have fallen in Brisbane since 1994.
 - **B** are higher in adults than in children.
 - C have increased in Brisbane since 1977.
 - **D** are at an unacceptable level in Townsville.
 - **E** are higher in Brisbane than in Townsville.
- Which one of the following claims about fluoridation in Australia is supported by evidence presented in the passage?
 - A The anti-flouride lobby denies that fluoridation reduces caries.
 - **B** The pro-fluoride lobby represents wealthy and powerful interests.
 - C Caries rates in children have declined in most capital cities since 1977.
 - **D** Advocates of fluoridation place too much trust in scientific assurances.
 - **E** The number of Australians supporting fluoridation has fallen by 44% since 1977.
- 11 The word 'ironically' (line 5) suggests that the writer was expecting public support for fluoridation to
 - **A** vary according to people's age and education.
 - **B** be greater in capital cities than in regional centres.
 - C fall as the incidence of caries in children was reduced.
 - **D** rise if fluoridation reduced the rate of caries in children.
 - E vary according to the media exposure gained by the pro- and anti-fluoride lobbies.

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Question 12

Which pair of observations most strongly supports the claim that drug use will be reduced if drugs are legalised?

A	Initially	Subsequently
	Drugs illegal	Drugs legalised
	Drugs illegal Drug use low	Drug use remains low

В	Initially	Subsequently
	Drugs illegal	Drugs legalised
	Drug use high	Drug use increases further

C	Initially	Subsequently
	Drugs illegal Drug use high	Drug use becomes legal Drug use drops

D	Initially	Subsequently
	Drugs already legal Drug use low	Drug use becomes illegal Drug use remains low

E	Initially	Subsequently	
	Drugs already legal	Drug use becomes illegal	
	Drug use high	Drug use drops	

Questions 13 - 15

The following passage is adapted from a work on criminology published in 1941. After reading it, answer the questions below.

It is often said that 'crime does not pay', but very few try to discover who it is that crime does not pay. The saying is generally supposed to refer to the criminal, but in reality it refers to that part of the community which pays the taxes. The taxpayer provides the money to pay for jails, prisons and penitentiaries. How much better it would be if we were sufficiently enlightened for such money to be used in training parents and teachers to guide children wisely; to provide adequate means of living; to sort out, before they get into difficulty, those who could never adjust themselves constructively to society; and to place them where they would be under proper supervision; not only to place them under proper supervision but to allow them to develop to the limit of whatever their capacity might be, and to keep them throughout life where they would be protected from society and where society would be protected from them.

5

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- 13 The writer urges that resources be diverted from
 - **A** prevention to cure.
 - **B** diagnosis to therapy.
 - **C** the criminal to the victim.
 - **D** punishment of crime to prevention.
 - **E** unproductive to productive members of society.
- 14 In quoting the saying 'Crime does not pay' the writer is
 - A expressing regret at an unfortunate trend.
 - **B** emphasising the need for improved policing.
 - C implying that criminals are generally wealthy.
 - **D** drawing attention to the economic costs of crime.
 - **E** encouraging taxpayers to demand heavier sentences.
- 15 Which of the following statements constitutes an **objection** to the writer's argument?
 - **A** It is unjust to expose vulnerable people to the harsh competitive realities of life.
 - **B** It is unjust to limit the activities of people who have done no actual harm.
 - C It is unjust to expose the innocent to people who are certain to do harm.
 - **D** Potential deviants can be identified with complete reliability.
 - **E** Potential deviants can be rehabilitated given sufficient time.

Questions 16 and 17

The following proposition is the basis of questions 16 and 17.

'Our society will benefit from less government intervention and regulation.'

Each of the questions below contains a **statement** and a set of **alternatives**, **A–E**. For each question, you are to indicate which alternative most appropriately describes the relationship between the statement and the proposition.

16 Statement:

'The future offers great opportunities and great challenges for our society to deal with.'

In relation to the proposition, this statement:

- A offers significant support.
- **B** can be used as a significant counter.
- C merely repeats or offers insignificant support.
- **D** merely contradicts or offers an insignificant counter.
- **E** is irrelevant and cannot be used to support or counter.

17 Statement:

'Less government intervention should involve less expense on parliaments and politicians.' In relation to the proposition, this statement:

- A offers significant support.
- **B** can be used as a significant counter.
- C merely repeats or offers insignificant support.
- **D** merely contradicts or offers an insignificant counter.
- **E** is irrelevant and cannot be used to support or counter.

Questions 18 - 21

Raelene, Carlos, Betty and Andy have a tertiary studies project to complete within a very tight deadline. They are all accountable for the final product, and all must demonstrate their individual contribution.

Betty: There's so much to do and so little time! Let's meet together socially first

so that we can really get to know each other. Or should we brainstorm some

ideas first?

Raelene: Well, I think we should first work out what each of us is going to take

responsibility for. What would you rather do, Andy?

Andy: As little as possible!

(Group laughter.)

Raelene: Yes, but what contribution can you make? Are you better at writing/editing,

or research, or talking to people?

Andy: Oh, whatever. I'm comfortable with any of those. I'll just do what I'm

directed to do.

Raelene: Carlos? What about you?

Carlos: Well, I don't really like talking to people on the phone so I'd prefer to do

the research.

Betty: Oh, I thought I could do that. Perhaps Carlos and I could both do the

research and Andy could do the phone contacts. Raelene, you could do all

the writing up and presentation.

Raelene: Well, we probably only need one person to do the research so it might be

better if Carlos does that and if you and Andy do the phone contacts.

Betty: Well, I'd really prefer to do the research. That's something I'm good at.

Carlos would be OK with Andy helping him.

Andy: I don't care what I do or who I work with. Just tell me, someone, so I can

go and have my lunch!

Raelene: Look, to get the project done in time we have to make sure everyone has a

specific task. Carlos, you're probably better off doing the research and Betty, we need someone confident for the telephone communication side of the project. Andy doesn't mind what he does so he could help you with the

phone calls. How does that sound?

- 18 Which one of the following responses from Betty would best meet the group's needs now?
 - **A** Betty challenges the leadership role that Raelene seems to have assumed on the grounds that she, Betty, would be a better leader.
 - **B** Betty rejects Raelene's suggestion on the grounds that Raelene is the best person in the group to do the telephoning.
 - C Betty accepts the suggestion and begins thinking about the people she and Andy need to contact.
 - **D** Betty repeats her suggestion of the group meeting socially to talk through the issue.
 - **E** Betty reluctantly gives way and then sits back waiting for instructions.
- 19 The most effective way for Raelene to maintain Betty's support, while still meeting the requirements of the project, would be to
 - **A** take over Andy and Carlos' work loads so that they are free to assist Betty.
 - **B** offer lavish praise, even if the quality of Betty's work is disappointing.
 - C give constructive feedback to Betty as needed.
 - **D** leave Betty alone for the rest of the project.
 - **E** provide close supervision for Betty.
- 20 Which one of the following assessments is most accurate in relation to Betty?

A Strengths: relaxed and easy-going, adaptable

Weaknesses: reluctant to participate or to commit to something

B Strengths: cheerful, persuasive, able to convince others of held views

Weaknesses: tendency to be argumentative, aggressive

C Strengths: weighs up situations carefully, cautious

Weaknesses: shy to the point of being uncomfortable with others

D Strengths: willing to commit wholeheartedly to a project
Weaknesses: tendency to take on other people's workloads

E Strengths: confident, assertive, willing worker Weaknesses: inclination to be forceful, persistent

- Assuming that Raelene's final suggestions are accepted by the group, who is most likely to have trouble completing their task?
 - A Raelene because she is not comfortable taking on a leadership role.
 - **B** Betty and Andy because Andy is unlikely to do as Betty wants.
 - C Carlos because he does not work well on his own.
 - **D** Betty because she is too indecisive and tentative.
 - **E** Andy because he lacks motivation.

Questions 22 and 23

You have been asked to set up a new project team.

- Which one of the following is likely to be most appropriate and important at the first formal meeting of a new project team?
 - A Establish a common sense of direction and expectations.
 - **B** Agree on a set of rewards and punishments for behaviours during the project.
 - C Start by having some drinks and food to relax everyone and keep things sociable.
 - **D** Make lists of strengths and weaknesses of people and share these prior to delegating tasks.
 - **E** Appoint the most dominating person as leader and chairperson so they can direct the project.
- In general, which one of the following is likely to be the best approach to establishing the social cohesion of a new project team?
 - A going to the pub for a few drinks
 - **B** electing a leader to help direct the group
 - C assigning tasks according to the experience of group members
 - **D** identifying project goals and phase deadlines so everyone knows what to do
 - E sharing an experience that requires interaction between group members and is fun

Question 24

24 A job interviewer asks an applicant the following question:

> 'How would you persuade a person working with you in a team to follow your suggestions when that person is reluctant to do so?'

Which one of the following responses by the applicant most strongly suggests an ability to work well in a team?

- A 'I would do the work myself. At least that way I know it would be done properly.'
- В 'I would make it very clear that I was more experienced in these matters than him/her.'
- \mathbf{C} 'I would find out more about the person's concerns and then discuss these with him/her.'
- 'I would follow his/her suggestions rather than mine to show the person they are wrong.' D
- as and mine to sh. be some give-. 'I would point out that in a team there has to be some give-and-take, and that he/she should listen to me this time.'

Question 25

Maria Winstanley walks into the Auto Universe car yard one Saturday afternoon. A salesperson, Max Bristol, approaches her, and begins to talk to her about the vehicles on display. Maria is a bit nervous about the whole situation, and tells Max that her budget is rather limited. Over a period of thirty minutes, Max shows Maria eight cars and engages Maria in conversation.

Near the end of their discussion, Max says, 'So there you have it. We've looked at quite a few models, but I think a discerning person like you will be thinking only of the top two models in our range: the Centaur SL, and the Woomera GTO. Which one will it be? It's a tough decision, I know.'

Of the following, the most likely primary purpose behind these statements and question is that

- **A** Max is trying to help Maria by simplifying her choice.
- **B** Max is attempting to restrict Maria's range of choice to only two models.
- C Max is presuming that Maria is happy to rely on luck to make her decision.
- **D** Max is trying to be low-key, leaving the choice wide open for Maria to make.
- **E** Max is trying to evenly balance the choice between the Centaur and the Woomera.

UNIT 13

Question 26

26 Sam put a lot of effort into applying for a job. He was short-listed, but has just received a letter telling him that he is unsuccessful.

In the following questions; Sam makes a statement and then there are five possible responses from Deirdre, who has also been trying to get a job.

Choose the response in which Deirdre is giving feedback that most indicates she is trying to understand and identify with Sam's feelings while being non-judgemental.

Sam:

'In the interview they seemed to be really interested in me!'

Deirdre:

- A 'Forget it. Try something else.'
- **B** 'They always act like that. Maybe you were too confident?'
- C 'You'd gone to a lot of effort. It was probably really close. You must feel let down!'
- **D** 'That's life, Sam. Surely you realise there are thousands of people looking for work!'
- E 'Sometimes you can get a job when the panel is very off-hand. That's what it was like when I got my holiday job.'

argument task

Consider the following comments and develop a piece of writing presenting your point of view on one or more of the issues.

Your response will be judged on:

- the quality of your ideas and opinions, regardless of the position you take;
- how well your argument is organised and structured; and
- how clearly and fluently your views are expressed.

You may find it useful to provide a title for your argument.

The media is the watchdog of society, bringing into the open things that many people would prefer to remain secret.

News is more often than not created by the media rather than simply reported by it.

The media is just the modern form of the age-old need to inquire after, listen to and pass on information.

The pervasive influence of the media has meant that people are no longer able to genuinely think for themselves; they just repeat whatever they've read in the paper or heard on television or radio.

report task

Write a report presenting the major ideas and information in the material provided below.

Your response will be judged on:

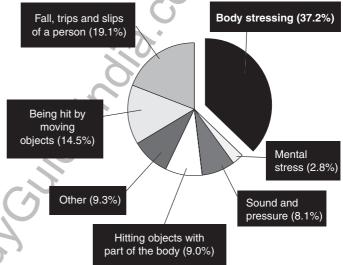
- the quality of your understanding and selection of the material;
- how well your report is organised and structured; and
- how clearly the ideas and information are expressed.

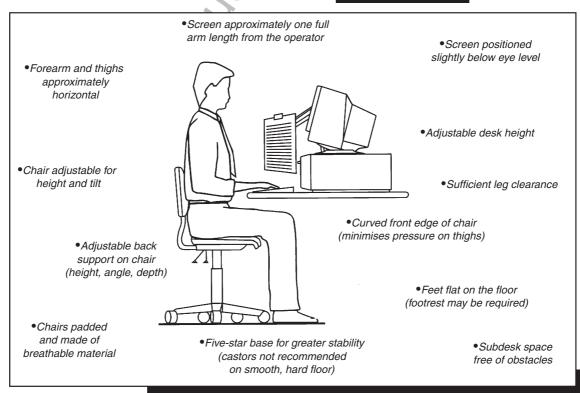
You may find it useful to provide a title for your report.

Mechanism of injury, Australian workplaces compensation claims, 1993–94

Some risk factors for work-related overuse injuries:

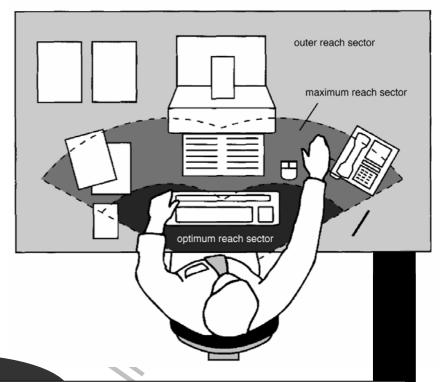
- Awkward, rigid or sustained working positions
- Excessive work rates
- Financial incentives to increase productivity
- · Inadequate rest breaks
- · Inadequate training
- Individual capacity for repetitive work
- Lack of job variation
- Monitoring of work rate by machine
- Overbearing supervision
- Poor workplace design
- Psychological or emotional stress
- Rapid repetitive movements





Body stressing involves:

- muscular stress while lifting, carrying or putting down objects;
- muscular stress while handling objects other than lifting, carrying or putting down;
- muscular stress with no objects being handled;
- repetitive movement with low muscle loading.

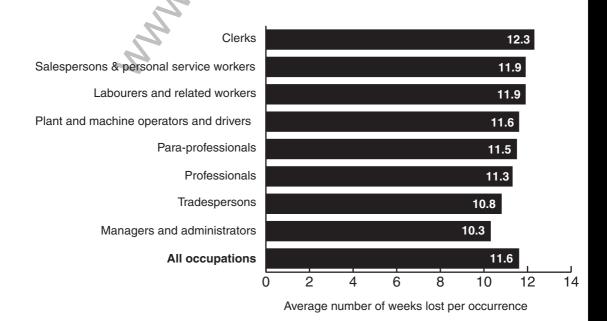


There are more than 2 chances in 5 that an Australian worker will experience a serious work-related injury/disease as a result of body stressing during the course of his or her working life.

The total annual cost of body stressing cases to employers, injured workers and the general community is estimated at \$9.5 billion.

National Occupational Health and Safety Commission, Sydney

Body stressing — duration of absence from workplace by occupation Australian workplaces compensation claims, 1993–94



Answers

1	В	11	D	21 E
2	\mathbf{C}	12	\mathbf{C}	22 A
3	\mathbf{A}	13	D	23 E
4	A	14	D	24 C
5	\mathbf{C}	15	В	25 B
6	\mathbf{C}	16	\mathbf{E}	26 C
7	В	17	\mathbf{A}	
8	\mathbf{A}	18	\mathbf{C}	
9	\mathbf{E}	19	\mathbf{C}	
10	\mathbf{C}	20	\mathbf{E}	
1				

Acknowledgments

S. Renaud for the extract from 'The French Paradox', *Proceedings from the Wolf Blass Foundation International Wine and Health Conference*, Ed. C.S. Stockley, The Wolfblass Foundation Inc., 1996; The Australian Council for Educational Research for the extract from 'The ABC of Criminology', ACER, Melbourne, 1941; The Bulletin for the extract from a letter, October 24, 2000.