

# General Training : Reading and Writing

## Test A

### READING

#### SECTION 1 Questions 1 – 13

##### Questions 1 – 5

Look at the information on the following page about the use of vehicles in the University grounds.  
In boxes 1 – 5 on your answer sheet write

- TRUE** if the statement is true  
**FALSE** if the statement is false  
**NOT GIVEN** if the information is not given in the passage

**Example**

The campus roads are not open to general members of the public.

**Answer**  
**TRUE**

1. University employees do not need to pay for their parking permits.
2. Parking in Halls of Residence is handled by the Wardens of the Halls.
3. Having a University permit does not allow staff to park at Halls.
4. Parking permits cost £20 a year.
5. Students living in Hall do not need permission to park in Hall car parks.



## **USE OF UNIVERSITY GROUNDS BY VEHICULAR TRAFFIC**

The University grounds are private.

The University authorities only allow authorised members of the University, visitors and drivers of vehicles servicing the University to enter the grounds.

Members of staff who have paid the requisite fee and display the appropriate permit may bring a vehicle into the grounds. A University permit does not entitle them to park in Hall car parks however, unless authorised by the Warden of the Hall concerned.

Students may not bring vehicles into the grounds during the working day unless they have been given special permission by the Security Officer and have paid for and are displaying an appropriate entry permit. Students living in Halls of Residence must obtain permission from the Warden to keep a motor vehicle at their residence.

Students are reminded that if they park a motor vehicle on University premises without a valid permit, they will be fined £ 20.

## Questions 6 - 13

Look at the patient information leaflet on the following page.

Match each of the following sentences with **TWO** possible endings **A - M** from the box below.

Write the appropriate letters **A - M** in boxes 6 - 13 on your answer sheet.

**Example**

Borodine tablets should not be given to...

**Answer**

**A and M**

## Questions 6 and 7

Borodine tablets might be used to treat...

## Questions 8 and 9

You must ask your doctor **before** taking Borodine tablets if you are already being treated for...

## Questions 10 and 11

You do not need to consult your doctor immediately if Borodine tablets give you...

## Questions 12 and 13

You must consult your doctor at once if you find Borodine tablets cause...

### Possible Endings

- (A) children under **12** years of age.
- (B) a headache.
- (C) an uncomfortable feeling in your stomach.
- (D) symptoms similar to a cold.
- (E) a change in your skin colour.
- (F) anything treated by a prescription medicine.
- (G) a kidney complaint.
- (H) a whitening of the eyes.
- (I) sore or broken skin.
- (J) a fungal infection.
- (K) a feeling of sadness.
- (L) shortness of breath.
- (M) a woman expecting a child.

## PATIENT INFORMATION LEAFLET

The name of your medicine is  
**Borodine tablets.**

### WHAT ARE **Borodine** TABLETS USED FOR?

**Borodine** tablets are used to help relieve hay fever and conditions due to allergies, in particular skin reactions and a runny nose.

It is not recommended that **Borodine** tablets are given to children under 12 years of age or pregnant or breastfeeding women.

### BEFORE YOU TAKE **Borodine** TABLETS

In some circumstances it is very important not to take **Borodine** tablets. If you ignore these instructions, this medicine could affect your heart rhythm.

Are you taking oral medicines for fungal infections?

Have you suffered a reaction to medicines containing **Borodine** before?

Do you suffer from any liver, kidney or heart disease?

If the answer to any of these questions is **YES**, do not take **Borodine** tablets before consulting your doctor.

### AFTER TAKING **Borodine** TABLETS

**Borodine** tablets, like many other medicines, may cause side-effects in some people.

If you faint, stop taking **Borodine** tablets and tell your doctor immediately.

In addition **Borodine** tablets may cause problems with your vision, hair loss, depression or confusion, yellowing of your skin or your eyes.

If you have these effects whilst taking **Borodine** tablets, tell your doctor immediately.

Other side-effects are dizziness or headaches, and indigestion or stomachache. However, these effects are often mild and usually wear off after a few days' treatment. If they last for more than a few days, tell your doctor.

## SECTION 2      Questions 14 – 20

### Questions 14 – 20

Look at the introduction to West Thames College on the following page and at the statements (Questions 14 – 20) below.

In boxes 14 – 20 on your answer sheet write

- |                  |                                                |
|------------------|------------------------------------------------|
| <b>TRUE</b>      | if the statement is true                       |
| <b>FALSE</b>     | if the statement is false                      |
| <b>NOT GIVEN</b> | if the information is not given in the passage |

14. Chiswick Polytechnic was closed at the same time West Thames College was opened.
15. Most of the students at the college come from outside the local area.
16. The college changed its name to West Thames College in 1993.
17. There are currently 6000 students over the age of 19 attending the college.
18. Students under the age of 16 cannot attend any of the courses offered by the college.
19. The college offers a more mature environment in which to learn than a school.
20. There are fewer subjects to study in the sixth form of a school than at the college.

## WEST THAMES COLLEGE

### BACKGROUND INFORMATION FOR CANDIDATES

West Thames College (initially known as Hounslow Borough College) came into existence in 1976 following the merger of Isleworth Polytechnic with part of Chiswick Polytechnic. Both parent colleges, in various guises, enjoyed a long tradition of service to the community dating back to the 1890s.

The college is located at London Road, Isleworth, on a site occupied by the Victorian house of the Pears family, Spring Grove House. An earlier house of the same name on this site had been the home of Sir Joseph Banks, the botanist who named Botany Bay with Captain Cook in 1770. Later he founded Kew Gardens.

Situated at the heart of West London, West Thames College is ideally placed to serve the training and education needs of local industry and local people. But its influence reaches much further than the immediate locality.

Under its former name, Hounslow Borough College, it had already established a regional, national and international reputation for excellence. In fact, about eight percent of its students come from continental Europe and further afield, whilst a further 52 percent are from outside the immediate area. Since 1 April 1993, when it became independent of the local authority and adopted its new title, West Thames College has continued to build on that first class reputation.

These days there is no such thing as a typical student. More than half of West Thames College's 6000 students are over 19 years old. Some of these will be attending college part-time under their employers' training schemes. Others will want to learn new skills purely out of interest, or out of a desire to improve their promotion chances, or they may want a change in career.

The college is also very popular with 16 - 18 year olds, who see it as a practical alternative to a further two years at school. They want to study in the more adult atmosphere the college provides. They can choose from a far wider range of subjects than it would be practical for a sixth form to offer. If they want to go straight into employment they can still study at college to gain qualifications relevant to the job, either on a day-release basis or through Network or the Modern Apprenticeship Scheme.



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## Questions 21 - 26

Look at the West Thames College's Services for Students on the following page. Each paragraph A - H describes a different service provided by the college.

From the list below (i - xi) choose the most suitable summaries for paragraphs A, C and E - H. Write the appropriate numbers (i - xi) in boxes 21 - 26 on your answer sheet.

**NB** There are more summaries than paragraphs, so you will not use them all.

- i A shop for the books and stationery needed to study
- ii Counselling and welfare willing to listen, offer advice or arrange a referral
- iii An Examinations Office arranging exams and issuing certificates
- iv A Registrar's Office handling all fee payments and related enquiries
- v A Medical Service offering on-site assistance with health-related problems
- vi A tutorial system for regular one-to-one guidance, support and feedback
- vii Careers Advice helping students into employment
- viii An Admissions Service providing assistance in choosing and applying for higher education courses
- ix A Student Union representing students on college committees
- x Clubs and societies for students' free-time
- xi A Learning Support Service supporting students in studying, presenting information and handling numbers

### 21. Paragraph A

Example  
Paragraph B

Answer  
xi

### 22. Paragraph C

Example  
Paragraph D

Answer  
i

### 23. Paragraph E

### 24. Paragraph F

### 25. Paragraph G

### 26. Paragraph H

## WEST THAMES COLLEGE SERVICES FOR STUDENTS



### A

As a full-time student at West Thames College you will have your own Personal Mentor who will see you each week to guide you through your studies, and discuss any problems which may arise. We take a cooperative approach to the assessment of your work and encourage you to contribute to discussion.

### B

This service provides specialist assistance and courses for those who need help to improve their writing, oral and numeracy skills for the successful completion of their college course. Help with basic skills is also available.

### C

This service is available to anyone who is undecided as to which course to follow. It is very much a service for the individual, whatever your age, helping you to select the best option to suit your circumstances. The service includes educational advice, guidance and support, including a facility for accrediting your previous experience—the Accreditation of Prior Learning (APL). The Admissions Office is open Monday to Friday 9.00 am to 5.00 pm. All interviews are confidential and conducted in a relaxed and friendly atmosphere. Evening appointments are available on request.

### D

The College Bookshop stocks a wide range of books, covering aspects of all courses, together with a good selection of stationery. It also supplies stamps, phone cards, blank videos and computer disks. The shop is open at times specified in the Student Handbook in the mornings, afternoons and evenings.

### E

When students are weary from study and want the chance to relax and enjoy themselves with friends, they can participate in a number of recreational activities. Depending on demand, we offer a range of sporting activities including football, badminton, basketball, table tennis, volleyball, weight training and aerobics. For the non-sporting students we offer a debating society, video club, hair and beauty sessions, as well as a range of creative activities. Suggestions for activities from students are always welcome.

### F

This confidential service is available if you have practical or personal difficulties during your course of study, whether of a financial or personal nature. Our Student Advisors can help you directly or put you in touch with someone else who can give you the help you need.

### G

The College Nurses are there for general medical advice and for treatment of illness or injury. All visits are confidential. First aid boxes and fully-trained First Aiders are also on hand at various locations around the college.

### H

West London employers have a permanent base in the centre of college, with access to a database of more than 24,000 jobs available locally and in Central London. They will also help you with job applications and interview techniques.

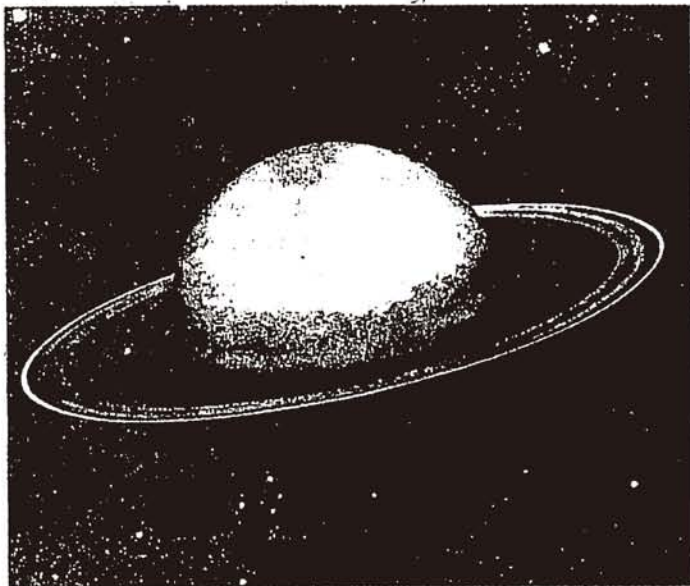
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## SECTION 3

### Questions 27 - 40

Read the following passage and answer Questions 27 - 40.

## The Discovery of Uranus



Someone once put forward an attractive though unlikely theory. Throughout the Earth's annual revolution around the sun there is one point of space always hidden from our eyes. This point is the opposite part of the Earth's orbit, which is always hidden by the sun. Could there be another planet there, essentially similar to our own, but always invisible?

If a space probe today sent back evidence that such a world existed it would cause not much more sensation than Sir William Herschel's discov-

ery of a new planet, Uranus, in 1781.

Herschel was an extraordinary man—no other astronomer has ever covered so vast a field of work—and his career deserves study. He was born in Hanover in Germany in 1738, left the German army in 1757, and arrived in England the same year with no money but quite exceptional music ability. He played the violin and oboe and at one time was organist in the Octagon Chapel in the city of Bath. Herschel's was an active mind, and deep inside he was con-

scious that music was not his destiny; he therefore read widely in science and the arts, but not until 1772 did he come across a book on astronomy. He was then 34, middle-aged by the standards of the time, but without hesitation he embarked on his new career, financing it by his professional work as a musician. He spent years mastering the art of telescope construction, and even by present-day standards his instruments are comparable with the best.

Serious observation began in 1774. He set himself the

astonishing task of 'reviewing the heavens', in other words, pointing his telescope to every accessible part of the sky and recording what he saw. The first review was made in 1775; the second, and most momentous, in 1780 - 1781. It was during the latter part of this that he discovered Uranus. Afterwards, supported by the royal grant in recognition of his work, he was able to devote himself entirely to astronomy. His final achievements spread from the sun and moon to remote galaxies (of which he discovered hundreds), and papers flooded from his pen until his death in 1822.

Among these there was one sent to the Royal Society in 1781, entitled *An Account of a Comet*. In his own words:

**On Tuesday the 13th of March, between ten and eleven in the evening, while I was examining the small stars in the neighbourhood of H Geminorum, I perceived one that appeared visibly larger than the rest; being struck with its uncommon magnitude, I compared it to H Geminorum and the small star in the quartile between Auriga and Gemini, and finding it to be much**

**larger than either of them, suspected it to be a comet.**

Herschel's care was the hallmark of a great observer; he was not prepared to jump to any conclusions. Also, to be fair, the discovery of a new planet was the last thought in anybody's mind. But further observation by other astronomers besides Herschel revealed two curious facts. For a comet, it showed a remarkably sharp disc; furthermore, it was moving so slowly that it was thought to be a great distance from the sun, and comets are only normally visible in the immediate vicinity of the sun. As its orbit came to be worked out the truth dawned that it was a new planet far beyond Saturn's realm, and that the 'reviewer of the heavens' had stumbled across an unprecedented prize. Herschel wanted to call it *georgium sidus* (Star of George) in honour of his royal patron King George III of Great Britain. The planet was later for a time called Herschel in honour of its discoverer. The name Uranus, which was first proposed by the German astronomer Johann Elert Bode, was in use by the late 19th century.

Uranus is a giant in con-

struction, but not so much in size; its diameter compares unfavourably with that of Jupiter and Saturn, though on the terrestrial scale it is still colossal. Uranus' atmosphere consists largely of hydrogen and helium, with a trace of methane. Through a telescope the planet appears as a small bluish-green disc with a faint green periphery. In 1977, while recording the occultation<sup>1</sup> of a star behind the planet, the American astronomer James L. Elliot discovered the presence of five rings encircling the equator of Uranus. Four more rings were discovered in January 1986 during the exploratory flight of *Voyager 2*<sup>2</sup>. In addition to its rings, Uranus has 15 satellites ('moons'), the last 10 discovered by *Voyager 2* on the same flight; all revolve about its equator and move with the planet in an east-west direction. The two largest moons, Titania and Oberon, were discovered by Herschel in 1787. The next two, Umbriel and Ariel, were found in 1851 by the British astronomer William Lassell. Miranda, thought before 1986 to be the innermost moon, was discovered in 1948 by the American astronomer Gerard Peter Kuiper.

#### Glossary:

<sup>1</sup>occultation in astronomy, when one object passes in front of another and hides the second from view, especially, for example, when the moon comes between an observer and a star or planet

<sup>2</sup>*Voyager 2* an unmanned spacecraft sent on a voyage past Saturn, Uranus and Jupiter in 1986, during which it sent back information about these planets to scientists on earth

# **Questions 27 - 31**

Complete the table below.

Write a date for each answer.

Write your answers in boxes 27 - 31 on your answer sheet.

Event	Date
<i>Example</i>	<i>Answer</i>
William Herschel was born	1738
Herschel began investigating astronomy	(27) .....
Discovery of the planet Uranus	(28) .....
Discovery of the moons Titania and Oberon	(29) .....
First discovery of Uranus' rings	(30) .....
Discovery of the last 10 moons of Uranus	(31) .....

### Questions 32 – 36

Do the following statements reflect the claims of the writer of the Reading Passage?

In boxes 32 – 36 on your answer sheet write

- YES** if the statement reflects the claims of the writer  
**NO** if the statement contradicts the writer  
**NOT GIVEN** if it is impossible to say what the writer thinks about this

Example	Answer
Herschel was multi-talented.	<b>YES</b>

32. It is improbable that there is a planet hidden behind the sun.  
 33. Herschel knew immediately that he had found a new planet.  
 34. Herschel collaborated with other astronomers of his time.  
 35. Herschel's newly-discovered object was considered to be too far from the sun to be a comet.  
 36. Herschel's discovery was the most important find of the last three hundred years.

### Questions 37 – 40

Complete each of the following statements (Questions 37 – 40) with a name from the Reading passage.

Write your answers in boxes 37 – 40 on your answer sheet.

- The suggested names of the new planet started with ... (37) ..., then...  
 (38) ..., before finally settling on Uranus.  
 The first five rings around Uranus were discovered by... (39) ....  
 From 1948 until 1986, the moon... (40) ... was believed to be the moon closest to the surface of Uranus.

# General Training: Reading and Writing

## Test B

### READING

#### SECTION 1      Questions 1 – 13

##### Questions 1 – 7

Look at the three restaurant advertisements on the following page.

Answer the questions below by writing the letters of the appropriate restaurants (A – C) in boxes 1 – 7 on your answer sheet.

*Example*

*Answer*

It stops serving lunch at 2.30 pm.

**B**

1. It is open for breakfast.
2. It is open every night for dinner.
3. It is only open for lunch on weekdays.
4. It has recently returned to its previous location.
5. It welcomes families.
6. It caters for large groups.
7. It only opens at weekends.

# DINING OUT

A

## **Aboyne** The original **Luigi's** **Italian Restaurant**

is now back in Aboyne

**231 Beach Road,  
Aboyne**

(ample parking available)

Open:

Luncheon 12 to 3 pm

Dinner 6 to 10 pm

**TUESDAY TO SUNDAY**

**Entrees \$5.50 Mains \$8.00**

**Free ice cream for the kids**

Special functions

Up to 120 people

**Reservations: Phone 9763 3501**

B

## ***Mermaids***



**Italian &  
Seafood  
Cuisine**

**Lunch:**

Tuesday – Friday

12 noon – 2.30 pm

**Dinner:**

7 nights

6.00 pm – 11.30 pm

**Tel & Fax: 9784 1234**

**54 Shore Street  
Kempton**

C

## **RIVIERA CRUISING BOAT CLUB**

*Breakfast by the water*

**\$5.00**

**Saturday & Sunday**

**8.00 am to 11.00 am**

- Australian
- Continental
- American

**At Riviera**

**Cruising Boat Club**

**9753 5544**

**The Quay, Gateside**



### Questions 8 - 13

Read the information given in 'New Electricity Account Payment Facilities' on the following page and look at the statements below (Questions 8 - 13).

In boxes 8 - 13 on your answer sheet write

- TRUE** if the statement is true  
**FALSE** if the statement is false  
**NOT GIVEN** if the information is not given in the passage

Example	Answer
You must pay your account by mail.	<b>FALSE</b>

8. If you want a receipt, you should send your payment to the Southport address.
9. You may pay your account at branches of the Federal Bank.
10. You must pay the full amount, instalments are not permitted.
11. The Coastside Power Office is open on Saturday mornings.
12. You may pay your account by phone using your credit card.
13. There is a reduction for prompt payment.

## NEW ELECTRICITY ACCOUNT PAYMENT FACILITIES

AVAILABLE FROM 1 JULY 1998

After 1 July 1998, you may pay your electricity account in any of the following ways:

1. Payments via mail:

(A) No receipt required:

Mail payments to:

Coastside Power  
Locked Bag 2760  
Southport NSW 3479

(B) Receipt required:

Mail payments to:

Coastside Power  
PO Box 560  
Northbridge NSW 3472

2. Agency payments (payments directly to the bank):

Payments can be made at any branch of the Federal Bank by completing the deposit slip attached to your account notice.

NB: This facility is no longer available at South Pacific Bank branches.

3. Payments directly to Coastside Power Office:

Payments can be made directly to Coastside Power Office at 78 - 80 Third Avenue, Northbridge. Office hours are Monday to Friday, 8.30 am to 4.30 pm.

*Payment may be by personal cheque, bank cheque or cash.*

**Note:** Payments cannot be made by phone.

**SECTION 2**      *Questions 14 – 26***Questions 14 – 20**

Read the passage about personal computers on the following page and look at the statements below (Questions 14 – 20).

In boxes 14 – 20 on your answer sheet write

<b>TRUE</b>	<i>if the statement is true</i>
<b>FALSE</b>	<i>if the statement is false</i>
<b>NOT GIVEN</b>	<i>if the information is not given in the passage</i>

14. There are two computers and two printers available for public use at the library.
15. You can buy floppy disks at the information desk.
16. The information desk is closed at weekends.
17. It is essential to reserve a computer three days in advance if you want to use one.
18. If you are more than a quarter of an hour late, you could lose your reservation for the computer.
19. Library employees do not have detailed knowledge of computers.
20. The library runs courses for people who want to learn about computers.



# Central Library

## PERSONAL COMPUTERS AVAILABLE FOR PUBLIC TO USE

- 2 personal computers are available, for a fee of \$5.00. There is also an ink jet printer attached to each terminal. The library has a number of commercially available programs for word processing and spreadsheets.
- A4 paper can be bought from the desk if you wish to print your work. Alternatively you can bring your own paper. If you wish to store information however, you will need to bring your own floppy disk.

### Bookings

Because of high demand, a maximum of one hour's use per person per day is permitted. Bookings may be made up to three days in advance. Bookings may be made in person at the information desk or by phoning 8673 8901 during normal office hours. If for some reason you cannot keep your appointment, please telephone. If the library is not notified and you are 15 minutes late, your time can be given to someone else. Please sign in the visitors' book at the information desk when you first arrive to use the computer.

Please note that staff are not available to train people or give a lot of detailed instruction on how to use the programs. Prior knowledge is, therefore, necessary. However, tutorial groups are available for some of the programs and classes are offered on a regular basis. Please see the loans desk for more information about our computer courses.

## Questions 21 – 26

The text on Atlas English Language College on the following page has seven paragraphs (A – G).

Choose the most suitable headings for paragraphs B – G from the list of headings below.

Write the appropriate numbers ( i – ix ) in boxes 21 – 26 on your answer sheet.

**NB** There are more headings than paragraphs, so you will not use all of them.

### List of Headings

- i Recognition of your achievements
- ii Courses start every week
- iii Other services/Pastoral care/Personal arrangements
- iv A personal approach
- v Two meals every day
- vi First-class staff
- vii Up-to-date classroom practice
- viii Discovering a new language
- ix Monitored achievement

Example	Answer
Paragraph A	ii

21. Paragraph B

22. Paragraph C

23. Paragraph D

24. Paragraph E

25. Paragraph F

26. Paragraph G

## **GOOD REASONS FOR CHOOSING ATLAS ENGLISH LANGUAGE COLLEGE**

On an English course with Atlas English Language College, you improve your language skills and make friends from all over the world!

**A** Because Atlas courses start every Monday of the year, there's bound to be one that fits in with your academic, personal or professional commitments. Whatever your level of language ability, from beginner to advanced, you can choose to study for any length of time, from two weeks to a full year. Courses match a range of individual requirements, from intensive examination preparation to short summer programmes. Most courses commence at 9 am and run till 3 pm.

**B** If you take an intensive full-time course, we will help you to select the Special Interest Options which best suit your goals. From then on, our teacher will discuss your work with you on a weekly basis. This means that you should develop the language skills you need—and that you are helped to study at your own pace.

**C** The popularity and success of any language school depend greatly on the quality of the teachers and the methods they employ. All Atlas teachers have specialist qualifications in the teaching of English to foreign students and are all native speakers. We employ only experienced professionals with a proven record of success in the classroom.

**D** Atlas's teaching methodology is constantly revised as more is discovered about the process of learning a new language. Our teachers have access to an extensive range of materials, including the very latest in language teaching technology.

**E** On your first day at school, you will take a test which enables our Director of Studies to place you at the appropriate study level. Your progress will be continuously assessed and, once you have achieved specific linguistic goals, you will move up to a higher level of study.

**F** Every Atlas course fee includes accommodation in carefully selected homestay families. Breakfast and dinner each day are also included, so you need have no concerns about having to look for somewhere to live once you get to the school.

**G** On completion of any Intensive, Examination or Summer course, you will receive the Atlas Course Certificate of Attendance. On completion of a four-week course or longer you will also receive the Atlas Academic Record that reflects your ability in every aspect of the language from conversation to writing. Such a record will allow you to present your linguistic credentials to academic institutions or potential employers around the world.

*adapted with permission from a brochure published by EF Education*

## SECTION 3 Questions 27 - 40

### Questions 27 - 32

The Reading Passage on the following pages has seven paragraphs (A - G).

Choose the most suitable headings for paragraphs A - B and D - G from the list of headings below.

Write the appropriate numbers (i - ix) in boxes 27 - 32 on your answer sheet.

**NB** There are more headings than paragraphs, so you will not use all of them.

#### List of Headings

- i Robots working together
- ii Preparing LGVs for take-over
- iii Looking ahead
- iv The LGVs' main functions
- v Split location for newspaper production
- vi Newspapers superseded by technology
- vii Getting the newspaper to the printing centre
- viii Controlling the robots
- ix Beware of robots!

Example	Answer
Paragraph C	ix

27. Paragraph A

28. Paragraph B

29. Paragraph D

30. Paragraph E

31. Paragraph F

32. Paragraph G

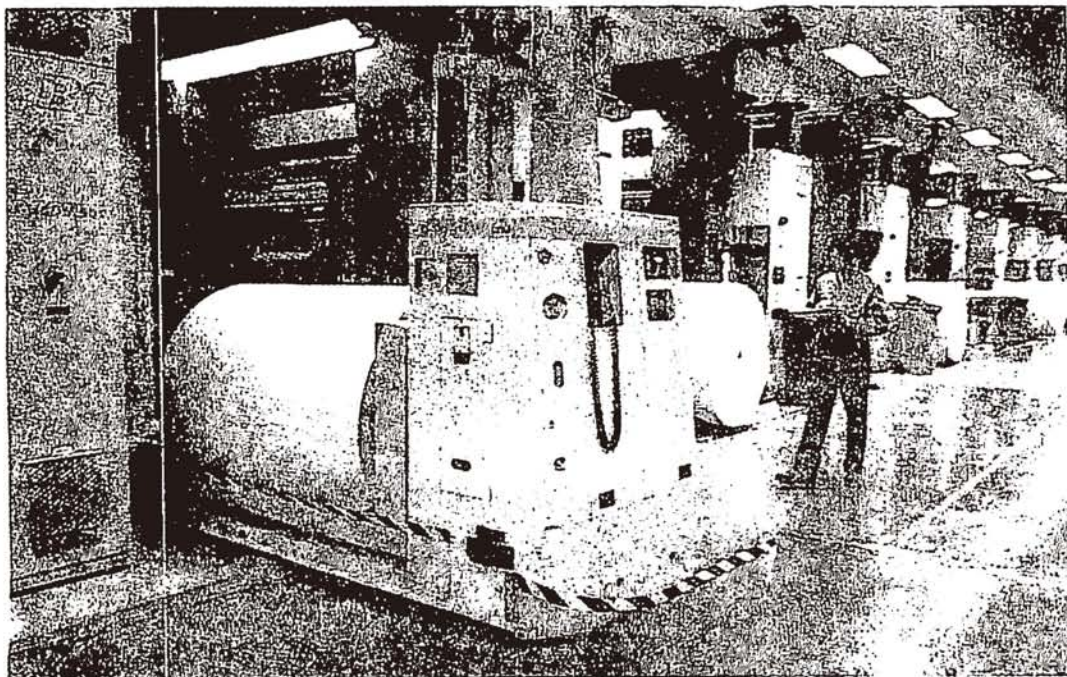
# ROBOTS AT WORK

## A

The newspaper production process has come a long way from the old days when the paper was written, edited, typeset and ultimately printed in one building with the journalists working on the upper floors and the printing presses going on the ground floor. These days the editor, sub-editors and journalists who put the paper together are likely to find themselves in a totally different building or maybe even in a different city. This is the situation which now prevails in Sydney. The daily paper is compiled at the editorial headquarters, known as the pre-press centre, in the heart of the city but printed far away in the suburbs at the printing centre. Here human beings are in the minority as much of the work is done by automated machines controlled by computers.

## B

Once the finished newspaper has been created for the next morning's edition, all the pages are transmitted electronically from the pre-press centre to the printing centre. The system of transmission is an update on the sophisticated page facsimile system already in use on many other newspapers. An image-setter at the printing centre delivers the pages as film. Each page takes less than a minute to produce, although for colour pages four versions are used, one each for black, cyan, magenta and yellow. The pages are then processed into photographic negatives and the film is used to produce aluminium printing plates ready for the presses.



# C

A procession of automated vehicles is busy at the new printing centre where the Sydney Morning Herald is printed each day. With lights flashing and warning horns honking, the robots (to give them their correct name, the LGVs or laser-guided vehicles) look for all the world like enthusiastic machines from a science-fiction movie, as they follow their own random paths around the plant busily getting on with their jobs. Automation of this kind is now standard in all modern newspaper plants. The robots can detect unauthorised personnel and alert security staff immediately if they find an 'intruder' and not surprisingly, tall tales are already being told about the machines starting to take on personalities of their own.

# D

The robots' principle job, however, is to shift the newsprint (the printing paper) that arrives at the plant in huge reels and emerges at the other end some time later as newspapers. Once the size of the day's paper and the publishing order are determined at head office, the information is punched into the computer and the LGVs are programmed to go about their work. The LGVs collect the appropriate size paper reels and take them where they have to go. When the press needs another reel its computer alerts the LGV system. The Sydney LGVs move busily around the press room fulfilling their two key functions—to collect reels of newsprint either from the reel stripping stations or from the racked supplies in the newsprint storage area. At the stripping station the tough wrapping that helps to protect a reel of paper from rough handling is removed. Any damaged paper is peeled off and the reel is then weighed.

# E

Then one of the four paster robots moves in. Specifically designed for the job, it trims the paper neatly and prepares the reel for the press. If required, the reel can be loaded directly onto the press. If not needed immediately, an LGV takes it to the storage area. When the press computer calls for a reel, an LGV takes it to the reel-loading area of the presses. It lifts the reel onto the loading position and places it in the correct spot with complete accuracy. As each reel is used up, the press drops the heavy cardboard core into a waste bin, and when the bin is full, another LGV collects it and deposits the cores into a shredder for recycling.

# F

The LGVs move at walking speed. Should anyone step in front of one or get too close, sensors stop the vehicle until the path is clear. The company has chosen a laser-guide function system for the vehicles because, as the project development manager says, 'The beauty of it is that if you want to change the routes, you can work out a new route on your computer and lay it down for them to follow.' When an LGV's batteries run low, it will take itself off line and go to the nearest battery maintenance point for replacement batteries. And all this is achieved with absolute minimum human input and a much reduced risk of injury to people working in the printing centres.

# G

The question newspaper workers must now ask, however is, how long will it be before the robots are writing the newspapers as well as running the printing centre, churning out the latest edition every morning?

Questions 33 – 40

Using the information in the passage, complete the flow chart below.

Write your answers in boxes 33 – 40 on your answer sheet.

Use **NO MORE THAN THREE WORDS** from the passage for each answer.

The Production Process

