

● 职业 学 校

通信与邮政 英语

ENGLISH
FOR TELECOMMUNICATIONS
AND POSTS

职业学校专业英语编写组



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职业学校

通信与邮政英语

职业学校专业英语编写组

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内 容 提 要

本书选材覆盖了有线、无线、网络、交换技术、卫星、微波等通信的主要领域。全书有 10 个单元,每单元分为阅读与翻译、模拟写作、听与说 3 个部分,并配有阅读理解、词汇和翻译练习。本书可供中(高)等职业学校通信与邮政专业学生学习专业英语使用,也可供自学者选用。

本书配有《通信与邮政英语练习答案》(包括阅读参考译文、练习参考答案和听力材料)和录音带。

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前 言

为了满足中(高)等职业教育对于专业外语的需求,尤其是飞速发展的IT行业对于从业人员在英语方面的要求,我们特别编写了这本《通信与邮政英语》供中(高)等职业学校专业英语教学使用。

本书在选材上考虑了一定的覆盖面。所选题材涵盖了有线、无线、网络、交换技术、卫星、微波、光纤、通信电源等电信领域的内容,以及万国邮联、特快专递等邮政方面的知识。通过改编,课文的词汇难度基本能适应中(高)等职业学校的教学。

本教材注重全面培养学生在专业英语方面的能力。首先,通过专业英语文章的阅读,学生了解通信与邮政领域的基本知识和技术,并在此过程中提高专业英语的水平;其次,实用模拟写作训练可以使今后从业时具有基本的专业英语写作能力;同时,有针对性的听力、口语练习可以帮助学生提高运用英语进行涉外交际的能力。

本书分为10个单元,每个单元分为阅读与翻译、模拟写作、听与说三个部分。阅读与翻译分为A、B两篇,A篇供课堂精讲,并配有较大量的阅读理解、词汇和翻译练习;B篇可供进行课堂快速阅读训练或学生课后自学。根据学生的英语水平,写作采用了模拟写作的方式,提供了样文,在理解样文的基础上确保学生基本能够完成填空写作。听与说主要采用听写填空并配合相应主题的口语讨论。全书建议授课学时为72学时,教师可根据课文长短及难度每一单元分配6~8学时,并可根据学生情况有侧重地引导学生学习。

本书配有《通信与邮政英语练习答案》以及录音带。

本书由北京邮电大学语言学院王斌主编,编写人员还有张人云、马隽,由北京邮电大学语言学院应娅舒审阅。

在本书编写过程中承蒙相关专业专家协助,特此一并感谢。

编 者

2001年5月

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1

Telephony



Part I

Reading and Translating



Read the following passage, paying attention to the questions on the left.

GUIDE FOR READING

The Story of Telephone

How did the
telephone come
into being?

In modern age, telephone has become a part of our daily lives. Thanks to the invention of it, we can now have a talk with people far away. Nowadays everyone knows what a telephone is and how to use it, but many decades ago, the word "telephone" did not mean the same thing.

Around 1780, people called a megaphone a telephone. It was also the name for a speaking tube, which had been widely used for more than a century at homes and on ships. In 1876, an electric telephone was invented by a Scotsman, Alexander Graham Bell.

At first, no one showed any interest in the telephone Bell had made. It was regarded as no more than a toy. Fortunately, the emperor of Brazil happened to know his invention and paid much attention to it. From then on, Bell's invention became famous and it set the pattern for the telephones we use today.

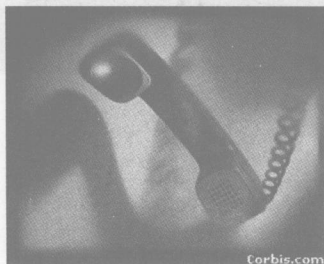
How does a
telephone work?

The telephone is a system for transmitting speech by electricity. When you make a phone call, the sounds of your voice can be changed into a varying electric current by a transmitter. The current goes through wires to the receiver, where it is changed back into sound. Then the per-



son you call can hear your voice.

The telephone transmitter contains a diaphragm, which is a thin, elastic sheet of metal. The center of the diaphragm connects to a little box, or pod, holding grains of carbon. When you talk, air current of your voice makes the diaphragm vibrate. An electric current flows through the pod and the carbon grains. As the diaphragm vibrates back and forth, the carbon grains move closer to each other or farther apart. When pressed together, the carbon grains conduct electricity better and more current flows. Loosened, they are under less pressure and less current flows. Thus, the back and forth movements of the diaphragm can change your voice into electric current.



The current travels through the telephone wire at such a speed that it could circle the earth more than seven times in one second. At the receiving end the current goes through a small electromagnet. The stronger the current is, the stronger the magnetic pull. The changing magnetic pull vibrates a diaphragm in the receiver, which can change current back into sound again.

The telephone is really a simple but wonderful invention.

Words and Expressions

carbon /'kɑ:bən/ *n.*

conduct /kən'dʌkt/ *v.*

contain /kən'tein/ *v.*

current /'kʌrənt/ *n.*

decade /'dekeid/ *n.*

diaphragm /'daɪəfrəm/ *n.*

elastic /i'læstik/ *adj.*

electric /i'lektrik/ *adj.*

electromagnet /i'lekt'rəu'mægnit/ *n.*

fortunately /'fɔ:tʃənətli/ *adv.*

grain /greɪn/ *n.*

invention /in'venʃən/ *n.*

loosen /'lu:sn/ *v.*

magnetic /mæg'netik/ *adj.*

mean /mi:n/ *v.*

megaphone /'megəfəʊn/ *n.*

pattern /'pætən/ *n.*

碳

传导, 传(热, 电等)

有, 包括

电流

十年

(电话等的)振动膜

有弹性的

电的; 带电的; 发电的

电磁铁

幸运地

硬粒, 沙粒

发明; 创造

解开, 松开

磁性的; 能吸引的

意指; 意欲

话筒

模型, 样本



pod /pɒd/ *n.*
press /pres/ *v.*
receiver /ri'si:və/ *n.*
sheet /ʃi:t/ *n.*
transmit /trænz'mit/ *v.*
tube /tju:b/ *n.*
vary /'veəri/ *v.*
vibrate /vai'breit/ *v.*

容器, 箱
压缩, 按压
(电话的) 听筒, 受话器
一片, 一块
发射
管子
变化
振动; 震动; 颤动

thanks to
show interest in
regard as
pay more attention to
from then on
set the pattern for sth
back-and-forth

由于; 因为
对...表示兴趣
认为; 认作
对...更加重视
从那时起
为...确定模式
前后

Check Your Understanding

I. Mark the following sentences with T (true) or F (false) according to the passage.

- () 1. Many decades ago, the word "telephone" did mean the same thing as it is today.
- () 2. Alexander Graham Bell was born in Brazil.
- () 3. The telephone is a system of transmitting voice by electricity.
- () 4. When you make a phone call, your voice can be changed into electric current.
- () 5. Diaphragm is made of thin and flexible sheet of metal.
- () 6. The stronger the current, the weaker the magnetic pull.
- () 7. When pressed together, the carbon grains conduct electricity better and less current flows.

II. Give brief answers to the following questions.

1. Around 1780 what did people call a megaphone?

2. Who invented the best electric telephone in 1876?

3. How did people think of the telephone Bell had made?

4. What is a telephone?

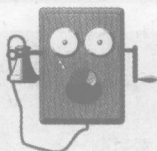


5. Where had megaphone been widely used for more than a century?

6. What does the telephone transmitter contain?

7. At what speed does the current travel through the telephone?

III. Label the following pictures of telephone with numbers from 1 to 5 where 1 stands for the oldest model and 5 for the latest.



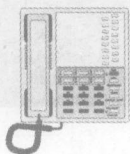
(1)



(2)



(3)



(4)



(5)



(6)

Build up Your Word Power

IV. Match the following two columns.

1. pattern

2. happen to know

3. conduct

4. contain

5. loosen

6. vary

a. example, model

b. cause to become different

c. make or become loose

d. know sb./sth. by chance

e. have or hold within itself

f. transmit, allow (heat, current) to pass along or through

V. Look at the following illustrations and label them correctly, using the words given below.

receiver

wire

dial

base

diaphragm

(1)

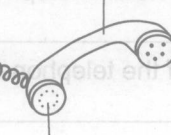


(5)

(2)

(3)

(4)





Translation

VI. Fill in the table below by giving the corresponding translation.

English	Chinese
electricity	
	碳
electromagnet	
	送话器
diaphragm	
	电流
receiver	
	模型, 范例

VII. Complete the following sentences by translating the Chinese given in the brackets.

- Telephone to people who do not wire it to Internet _____ (只不过是一种简单的通信工具) (no more than).
- When the diaphragm _____ (来回振动) (vibrate), the carbon grains move closer to each other or farther apart.
- _____ (多亏你的帮助) (thanks to), we have been able to avoid making a big mistake.
- He _____ (被认为是) (regard as) one of the best engineers in town, so I think he can fix the computer by himself.
- At the very beginning, _____ (没有人注意) (pay attention to) the telephone Bell had made, but now the telephone has become a part of our lives.



Telephone Traffic

To understand the concept of switching, it is necessary to get some knowledge of the important traffic concepts. The number of connections required in the central office would be equal to half the number of telephone users if all of them wished to talk at the same time. Such a situation is not likely to happen. Mostly, only a relatively small percentage of the telephone users use the telephone at a certain time; therefore, the switching system is required only to



complete connections at the same time for this number of telephone users. In a typical example, it might be assumed that no more than 10 percent of the telephone users would make calls at the same time, so the system would be designed to serve this traffic load. Of course, if a greater percentage of telephone users should then try to use this exchange at the same time, connections would not be established for some calls. These calls would be lost or blocked and there would be a certain probability of lost or blocked calls.

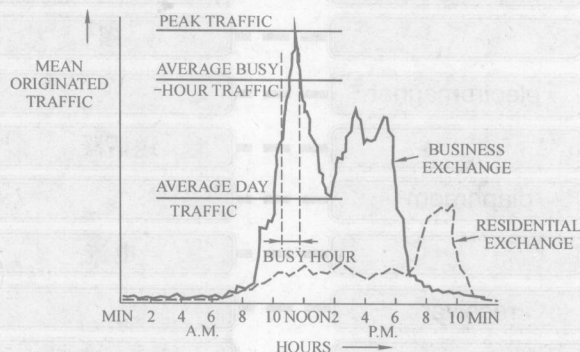


Fig. 1

The hour of the day and the season of the year affect the traffic to an office. During certain hours of the day, the traffic will be heavier than the average hourly level, as shown in Fig. 1. Such daily changes will be affected by seasonal factor. For example, busy-hour on Chinese New Year Eve would probably be around 12:00 p.m. Telephone systems are not designed to handle maximum peak traffic loads; neither are they designed to handle typical busy-hour loads (the period during the day that the most calls occur is defined as the busy hour). During this hour, some calls are expected to be blocked. As mentioned before, there is a definite probability of lost calls during this period, expressed as a decimal, "probability of loss or blockage", such as P.01. Such a probability figure means that one call out of a hundred will be blocked during the busy hour. Also, it expresses the grade of service, which will go down when the traffic load is above the busy-hour figure of the system. Overloads are expected to occur during emergencies and on special occasions.

Words and Expressions

affect /ə'fekt/ v.

assume /ə'sju:m/ v.

average /'ævərɪdʒ/ adj.

block /blɒk/ v.

concept /'kɒnsɛpt/ n.

decimal /'desɪmə/ n.

definite /'defɪnɪt/ adj.

影响

假定

平均的

阻塞

概念

十进小数

确定的



design /diˈzain/ *v.*
emergency /iˈmæ:dʒənsi/ *n.*
exchange /iksˈtʃeɪndʒ/ *n.*
factor /ˈfæktə/ *n.*
handle /ˈhændl/ *v.*
level /ˈlevəl/ *n.*
load /ləʊd/ *n.*
maximum /ˈmæksiməm/ *adj.*
occasion /əˈkeɪʒən/ *n.*
peak /piːk/ *n.*
percentage /pəˈsentɪdʒ/ *n.*
probability /ˌprɒbəˈbɪlɪti/ *n.*
relatively /ˈrelatɪvli/ *adv.*
situation /ˌsɪtʃuˈeɪʃən/ *n.*
switching /ˈswɪtʃɪŋ/ *n.*
traffic /ˈtræfɪk/ *n.*
typical /ˈtɪpɪkəl/ *adj.*

设计
紧急情况; 急救; 急诊病室
交换机
因素
处理
水平
负荷
最大的
(特定的)时刻, 时候
峰, 顶
百分比
可能性
相对地
情形; 形势
交换
话务
典型的

VIII. Here are some widely used terms and concepts in telephone business. Match the following two columns.

- | | |
|------------------------------------|-----------|
| 1. traffic load | a. 峰值负荷 |
| 2. peak traffic | b. 话务负荷 |
| 3. busy-hour traffic | c. 呼损或阻塞率 |
| 4. average day traffic | d. 忙时负荷 |
| 5. probability of loss or blockage | e. 日平均负荷 |

IX. The grade of telephone service is expressed as a decimal figure like P. 01, which means one out of 100 calls will be blocked during the busy hour. Please explain the following figures of service grade.

1. P. 001 _____

2. P. 0001 _____

X. Calculation.

Here are some more traffic terms:

calling rate: calls per hour per user

average holding time: time length of one call, expressed in seconds or minutes

traffic intensity: expressed in erlangs.



erlang = call-hours per hour

If 20 users make 30 continuous calls in 40 minutes, the total call-time is 4 200 seconds.

Then: calling rate = average calls per user per hour = $30 \div 20 \times 60 \div 40 = 2.25$

average holding time = $4\,200 \div 30 = 140$ seconds

load per user = $2.25 \times 140 \div 3\,600 = 0.0875$ erlangs

total load = $0.0875 \times 20 = 1.75$ erlangs

That is to say, during this period of time, traffic intensity is 1.75 erlangs, which means there are 1.75 calls occurring at the same time.

i) Match the following two columns.

1. erlang

2. average holding time

3. traffic intensity

4. calling rate

a. 话务强度

b. 呼叫率

c. 爱尔兰

d. 平均占用时间

ii) Calculating: If 250 users make 350 continuous calls in 45 minutes, the total call time is 45 000 seconds.

then calling rate = _____

average holding time = _____

load per user = _____ erlangs

total load = _____ erlangs

Part II

Simulated Writing

Sample Reading

Making Complaints

Format:

Inside address (信内地址)

Attention (收件人)

Sender Address (发信人地址)

Date (日期)



Salutation (称呼)

Body (正文)

Complimentary Close (客套语)

Signature (署名)

No. 2-12, Bld 2, Kings Garden
15th Street
Haidian District
Beijing, 100888

June 15, 2000

United Telecom

Telecom Tower

Fuxingmen Street

Xuanwu District

Beijing, 100320

Attn: Customer Service Department

Ladies/Gentlemen:

Can you tell me when I can expect my phone to be in service? I moved into my new apartment at No. 2-12, Bld 2, Kings Garden three months ago, March 13, 2000. Friends calling me say my phone rings but no one answers. The phone in my apartment does not ring, although the local phone company has checked my phone.

I am losing my patience with excuses from the local phone company. The phone here should be operational.

Please respond with action.

Sincerely,

James Venti



XI. Answer the following questions based on Sample Reading.

1. To whom is this letter written?
2. What is the writer complaining about?
3. What is wrong with the writer's telephone?
4. Did the local phone company check his phone? What is the local phone company's explanation?
5. What does the writer mean by writing "Please respond with action"?

Follow-up Writing

XII. Complete the following letter by filling in the blanks with translation of the Chinese given.

10

No. 2-12, Bld 2, Kings Garden
15th Street
Haidian District
Beijing, 100888

July 12, 2000

United Telecom

Telecom Tower

Fuxingmen Street

Xuanwu District

Beijing, 100320

Attn: Customer Service Department

Dear Sir or Madam:

I know people in large corporations must be very busy all the time, but I can not understand

_____ (为什么3个月过去了我的电话还没有安装上). I paid for a telephone on April 12, and they promised that I could use my phone in one month.



_____ (我对电话公司的种种借口快失去耐心了). I paid my money for a phone, not endless waiting.

_____ (请尽快给我安装电话).

Sincerely yours,

Edward Williams

Part III

Listening and Speaking

XIII. Listen to the following dialogues and filling in the blanks with the words you hear. Then listen again and repeat.

Asking for Location

1. Woman: Where is the Marketing Manager's Office?

Man: It's _____.

2. Woman: What is _____ on the _____?

Man: Our Training Center.

3. Woman: What _____ is on this floor?

Man: The General Manager's Office.

Woman: _____?

Man: Go ahead down the corridor and _____. It's _____ in front of you.

XIV. Listen to the following passage and mark the location of telephone booth by blackening the corresponding letter in the diagram.

Notes

telephone booth 电话亭

