1. a) Cover the right column and read the English words. Translate them into Russian and check your translation.
b) Cover the left column and translate the Russian words back into English.

end		конец, конечный
tap		отвод, ответвление
filament	[ˈfiləmənt]	нить накала
lower	[ˈlouə]	нижний
upper	[ˈʌpə]	верхний
secondary	[ˈsekəndərɪ]	вторичный
end capacity		конечная емкость
end coils		концевые витки
filament battery		батарея накала
filament current		ток накала
secondary circuit		вторичный контур
secondary resistance		дополнительное сопротивление
secondary battery		аккумуляторная батарея
frequency waves		длинные волны

3. Put down the Russian for:

centre tap _____

low voltage winding _____

tube plate _____

filament winding _____

Full-wave Rectifier

In a full-wave rectifier two diodes are used. They are connected to a common load resistance. The secondary of the transformers has a centre tap to which the load is connected. Current flows through the tubes from their plates to their cathodes. When the upper end of the high-voltage winding is positive, current flows through die upper tube.

During the opposite half cycle the lower end of die high voltage winding becomes positive. The plate of the lower tube becomes positive and the plate of the upper tube – negative. Thus now the lower tube conducts current. Current flows through the filament winding to its centre tap, then

through the load to the centre tap of the high-voltage winding and to the tube plate which is positive.

4. Complete the sentences using the correct variant:

1. A full-wave rectifier contains	a) one diode. b) two diodes.
2. The load is connected to	a) the centre tap of the primary. b) the centre tap of the secondary.
3. Current flows through the tubes	a) from the plates to the cathodes. b) from the cathodes to the plates.
4. When the upper end of the high-voltage winding is positive	a) current flows through the upper tube. b) current flows through the lower tube.
5. During the negative half-cycle	a) the plate of the lower tube becomes positive. b) the plate of the lower tube becomes negative.
6. During the positive half-cycle	a) the lower tube conducts current. b) the upper tube conducts current.

6. Pair work. Put these questions to your groupmate and let him/her answer them.

1. How many diodes does a full-wave rectifier contain?
2. What element is the load connected to?
3. What is the direction of current in the tubes?
4. During which cycle does the plate become negative?
5. When does the lower tube conduct current?
6. When does the upper tube conduct current?
7. What is the difference between a half-wave and a full-wave rectifier?
8. What is the difference in their construction?
9. In what way does a full-wave rectifier operate?
10. In what way does a half-wave rectifier operate?
11. What are the main parts of a half-wave rectifier?
12. What are the main parts of a full-wave rectifier?