Read the following text and study the notes below:

**Oils**

There are three main groups of oils: animal, vegetable and mineral. Great quantities of animal oil come from whales, those enormous creatures of the sea which are the largest remaining animals in the world. To protect the whale from the cold of the Arctic seas, nature has provided it with a thick covering of fat called blubber. When the whale is killed, the blubber is stripped off and boiled down, either on board ship or on shore. It produces a great quantity of oil which can be made into food for human consumption. A few other creatures yield oil, but none so much as the whale. The livers of the cod and the halibut, two kinds of fish, yield nourishing oil. Both cod liver oil and halibut liver oil are given to sick children and other invalids who need certain vitamins. These oils may be bought at any chemist's.

Vegetable oil has been known from antiquity. No household can get on without it, for it is used in cooking. Perfumes may be made from the oils of certain flowers. Soaps are made from vegetable and animal oils.

To the ordinary man, one kind of oil may be as important as another. But when the politician or the engineer refers to oil, he almost always means mineral oil, the oil that drives tanks, aeroplanes and warships, motor-cars and diesel locomotives; the oil that is used to lubricate all kinds of machinery. This is the oil that has changed the life of the common man. When it is refined into petrol it is used to drive the internal combustion engine. To it we owe the existence of the motorcar, which has replaced the private carriage drawn by the horse. To it we owe the possibility of flying. It has changed the methods of warfare on land and sea. This kind of oil comes out of the earth. Because it burns well, it is used as fuel and in some ways it is superior to coal in this respect. Many big ships now burn oil instead of coal. Because it burns brightly, it is used for illumination; countless homes are still illuminated with oil-burning lamps. Because it is very slippery, it is used for lubrication. Two metal surfaces rubbing together cause friction and heat; but if they are separated by a thin film of oil, the friction and heat are reduced. No machine would work for long if it were not properly lubricated. The oil used for this purpose must be of the correct thickness; if it is too thin it will not give sufficient lubrication, and if it is too thick it will not reach all parts that must be lubricated.

(From *Power and Progress* by G. C. Thornley (Longman))

**Notes**

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|  | **Oils** | | |
|  | **I. animal** | A. from | 1. mainly whales - fat called blubber protect from cold 2. also livers of cod and halibut |
|  |  | B. use | 1. given to e.g. sick children etc. who need vitamins. 2. soap |
|  | **II. vegetable** | A. known from antiquity | |
|  |  | B. use | 1. in cooking 2. oils of certain flowers perfumes 3. for soap |
|  | **III. mineral** | A. most common - mineral oil | |
|  |  | B. from earth | |
|  |  | C. use | 1. for tanks, aeroplanes and warships, motor-cars and diesel locomotives 2. to lubricate all kinds of machinery 3. owe the existence of the motorcar, possibility of flying |
|  |  | D. properties | 1. burns well fuel 2. burns brightly illumination 3. slippery lubrication |