Use of English – read the text and complete each gaps with ONE word.

Bodybuilding _____(1) become a popular sport worldwide. Once considered only for men, it is now enjoyed by thousands of women as well. Participants _____(2) this sport combine diet and specific weight training to develop maximum muscle mass and minimum body fat, with their major goal _____(3) a well-balanced, complete physique. An uninformed, untrained muscle builder can build some muscles and ignore others; the result is a disproportioned body. Skill, training, and concentration are required ____(4) build a well-proportioned, muscular body and to know which exercises build a large number of muscles and _____(5) are specialized to build certain parts of the body.

Is the old adage "no pain, no gain" correct? Not really, over-exercising can cause small tears in muscles, causing soreness. Torn muscles are weaker muscles, and it _____(6) take up to 3 weeks to repair the damage, even though the soreness may only last 5 to 10 days.

Bodybuilders concentrate on increasing skeletal muscle mass. Endurance tests conducted several years ago demonstrated that the cardiovascular and respiratory abilities of bodybuilders were _____(7) to those abilities in normal, healthy persons, untrained in a sport. _____(8), more recent studies indicate that the cardiorespiratory fitness of bodybuilders is similar to that of other well-trained athletes. The difference between the results of the new studies and the older studies is attributed to modern bodybuilding techniques _____(9) include aerobic exercise and running, as well as "pumping iron".

Bodybuilding has its own language. Bodybuilders refer to the "lats", "traps", and "delts" rather than the latissimus dorsi, trapezius, and deltoids. The exercises also have special names _____(10) as "lat pulldowns", "preacher curls", and "triceps extensions".

Skeletal muscles are very responsive to use and disuse. Those that are forcefully exercised tend to enlarge. This phenomenon is called muscular hypertrophy. Conversely, a muscle that is not used undergoes atrophy--that is, it decreases in size and strength.

The way a muscle responds to use also depends on the type of exercise. For instance, when a muscle contracts relatively weakly, as during swimming and running, its slow, fatigue-resistant red fibers are most likely to be activated. As a result, these fibers develop more mitochondria, and more extensive capillary network. Such changes increase the fibers' abilities to resist fatigue during prolonged exercise, although their sizes and strengths may remain unchanged.

Forceful exercise, such as weightlifting, in which a muscle exerts more than 75% of its maximum tension, uses the muscle's fast, fatigable white fibers. In response, existing muscle fibers develop new filaments of actin and myosin, and as their diameters increase, the entire muscle enlarges. However, no new muscle fibers are produced during hypertrophy.

Since the strength of a contraction is directly related to the diameter of the muscle fibers, an enlarged muscle can produce stronger contractions than before. However, such a change does not increase the muscle's ability to resist fatigue during activities such as running or swimming.

If regular exercise stops, capillary networks shrink and the number of mitochondria within the muscle fibers fall. Actin and myosin filaments diminish, and the entire muscle atrophies. Injured limbs immobilized in casts or accidents or diseases that interfere with motor nerve impulses commonly cause muscle atrophy. A muscle that cannot be exercised may decrease to less than one-half its usual size within a few months.

Muscle fibers whose motor neurons are severed not only decrease in size, but also may fragment and, in time, be replaced by fat or fibrous connective tissue. However, if such a muscle is reinnervated within the first few months following an injury, function may be restored.

A Read the text and decide if the following statements are true or false.

1 Swimming helps to develop the red fibers and makes the muscles stronger.

2 Forceful exercise leads to a greater number of muscle fibers.

3 The stronger the muscle, the more fatigue-resistant it is.

4 In muscle atrophy, a muscle can shrink by 50% in just a couple of months.

5 Once replaced by fat, muscle fibers can’t renew their function.

B Can you think of a HEADING for each paragraph? What could be the heading for the whole article?

C Find the collocations. Then, form nouns out of the verbs and verbs out of the nouns:

1decrease	a the urge to vomit
2 interfere	b the head from the body
3 to resist	c an image on the screen
4 to enlarge	d with sb’s working time
5 to sever	e in number of red blood cells