7.- The electrical engineer didn't advice me anthing- - - - - -
_____?

8.- The short circuit didn't damage the device,_____?

9.- This television set didn't cost me too much, _____?

10.- The starter needs a new magnetic field,_____?

XII.- SUPPLY THE TAG QUESTIONS TO THE FOLLOWING SENTENCES.

1.- They didn't know anything about engineering,_____?

2.- She came late yesterday,_____?

3.- It didn't work properly,_____?

4.- The generator works better with the new accesories, - - - -
_____?

5.- The battery has to be checked,_____?

6.- The current gauge shows 20 amperes,_____?

7.- This antenna doesn't work for this device,_____?

8.- This old radio doesn't use any transistor,_____?

9.- She doesn't like to talk about computers,_____?

10.- They didn't forget turning off the radio,_____?

11.- They took a course to operate the new machines, - - - - - -
_____?

12.- The engineers began to work yesterday,_____?

13.- We don't like to work in a laboratory,_____?

14.- The supervisors live far from the factory,_____?

15.- Engineers and supervisors work together,_____?

When matter and antimatter are brought together, they can annihilate each other to form a state of pure energy. A fundamental principle - of Physics demands that the reverse of that process also be possible: a state of pure energy can quite literally materialize to form ----- particles of ponderable mass. When the matter and antimatter are - an electron and a positron, the state formed by their annihilation-- consists in of electromagnetic energy. It is a particularly simple - state since electromagnetism is described by a well tested theory -- and is believed to be understood. For some time physicists have been- eager to learn just what kind of particles are created when an ----- electron and a positron collide at high energy. During the last ---- years, several experiments have provided a preliminary view of the- annihilation expectations. The discoveries are the most startling -- and exciting to emerge from high-energy Physics in a decade or more.

One reason for the great interest in these experiments is that -- provide a means of testing a central concept of modern particle ---- Physics: the notion that the "herd " of supposedly elementary ------ particles discovered during the past 25 years may actually be ------ assemblages of only a few structureless entities that are truly ---- fundamental. These constituent particles have been named QUARKS. --- Different versions of these quark theory make different predictions- about what is to be expected in the aftermath of an electron-positron annihilation, and it is hoped that the experiments would help to --- determine which version is the correct one.

As it turned out, the results of an initial series of experiments was not accord with any of the predictions. As the measurements were been repeated and refined, two massive particles were unexpectedly-- discovered. By coincidence the discovery of the first of the ------- particles was announced simultaneously by Physicists at two --------- labo ratories studying quite different reactions.

The existence of the new particles is in itself a surprise, but - even more remarkable is their extraordinary stability. Although they decay to more familiar, less massive particles in a period that by - conventional standards is very brief their lifetime is about 1000 -- times longer than of the other particles of comparable mass. This -- exceptional stability suggests that the new particles are ---------- fundamentally different from other kinds of matter. As yet their --- nature has not been satisfactorially explained and their significance remains a subject of lively speculation. Theories abound and Physics is in a stage of great ferment, but we can not be sure where the ---- particles fit into the scheme of things.

The subatomic particles can be classiffied in broad families -----

according to the kinds of interactions they participate in, or, as- it is often put, according to the kinds of forces they "feel". The- forces considered are the four fundamental ones that are believed-- to account for all observed interactions of matter: gravitation, -- electromagnetism, the strong force and the weak force.

The electromagnetic force has infinite range, but it acts only - on matter that carries an electric charge or current. The "PHOTON" is the carrier of the electromagnetic force, and when two particles interact electromagnetically, they can be considered to exchange a photon or photons. In the classification of particles the photon is in a category by itself; it has no mass and no charge and it does - not participate in either strong or weak interactions.

All particles except the photons are classified according to --- their response to these two forces. Those that feel the strong ---- force are called "Hadrons"; those that do not feel the strong ----- forces but do not respond to the weak force are called "Leptons".-- Particles belonging to these two families have quite different ---- properties.

In the experimental and theoretical investigations now under --- many current concepts are being challenged: one however is not in - questions: That of quarks themselves. The discovery of particles -- called "Psi" has confirmed again the central importance of quarks - as the constituent particles of hadrons. Whether or not we shall -- ever see free quarks in the laboratory is another question: it is - possible that they will always remain unobserved, exhibiting their- physival reality only through their success in explaining the ----- structure of hadrons and the forces that act on them.

Furthermore, we have no assurance that the quarks, whether there are three or nine or 12 or more of them, are the fundamental ------ particles of matter. In the 20th century Physics has proved the --- atom to discover the nucleus within, and has broken up the nucleus- into its constituent particles. Those particles are now interpreted as being composites of more basic entities, the quarks. It is not - unreasonable to imagine that we shall someday penetrate the quark - and find an internal structure there as well. Only the experiments- of the future can reveal whether quarks are the indivisible ------- building blocks of all matter, the "atoms " of Democritus, or ---- whether they too have a structure, as part of the endless series - of seeds within seeds envisioned by Anaxagoras.

I.- ANSWER " TRUE " OR " FALSE ".

1.- When matter and antimatter are brought together they can not -- annihilate each other....._____

2.- When the matter and antimatter are an electron and a positron - the state formed by their annihilation consists of ---------- electromagnetic energy....._____

3.- Electromagnetism hasn't been described very well and it hasn't - been understood yet....._____

4.- When an electron and a positron collide at high energy, the --- particles created have been known since long ago.._____

5.- The results of an initial series of experiments were not accord with any of the predictions....._____

6.- The discovery of the first of the particles was ennounced by -- two Physicists from different laboratories with a year of ----- difference....._____

7.- The new particles have extraordinary stability..._____

8.- Their nature has already been satisfactorily explained_____

9.- The fundamental forces that account for all observed interactions of matter are four....._____

10.-The fundamental forces that account for all observed interaction of matter are six....._____

II.- UNDERLINE THE CORRECT ANSWER

1.- The state formed by the annihilation for an electron and ------ positron consists of:
a)Unknown energy b)electromagnetic energy c)radiactive energy

2.- The new particles are very surprising because:
a)They have no stability b)They have little stability
c)..of their extraordinary stability.

3.- The subatomic particles can be classified in:
a)a small family b)a broad family c)broad families.

4.- The carrier of the electromagnetic force is the:
a)Photon b)Atoms c)Psi-particle d)Hadron

5.- The particles that do not feel the strong forces but do not --- respond to the weak force are called:
a)Electrons b)Quarks c)Leptons d)Photons

6.- The particles that feel the strong force are called:
a)Leptons b)Hadrons c)Photons d)Atoms

7.- Who considered that an "Atom" is the indivisible building block of all matter?
a)Democritus b)Ptolemy c)Michelangelo d)Socrates

8.- Who envisioned that an "atom" is an endless series of seeds -- within seeds?
a)Homer b)Plato c)Anaxagoras d)Julius Caesar

III.- TRANSLATE

1.- A state of pure energy can materialize.

_____

2.- The state consists of electromagnetic energy.

_____

3.- The particles created when an electron and a positron collide.

_____

4.- The discoveries are startling and exciting.

_____

5.- These constituent particles have been named Quarks.

_____

6.- The measurements were being repeated.

_____

7.- Their nature has not been satisfactorily explained.

_____

8.- The forces are gravitation, electromagnetism,the strong force- and the weak force.

_____

9.- It is a matter that carries electric charge.

_____

10 -It is possible that they will always remain unobserved.

_____

3.7 A TRAFFIC ENGINEER'S NIGHTMARE.

To prepare for the Olympic overload, California transportation officials have assembled all the tools and tricks that engineers and scientist have - devised to get people on, over and off major highways.

During the Olympics, the freeways of the Los Angeles basin which already hundle 125 million vehicle-miles of travel on an average weekday, has to -- absorb 12.5 million more when spectators as well as 12,000 athletes, coaches and support personnel fight through the crush to the 23 sites where the - - games are being held. The worst crunch by far will come in the worst - - - - possible area: downtown.

The last Olympiad has became a vast experiment to verify traffic theories based on everything from the Physics of fluids to plain mathematical models- of roadway capacity.

The moment of truth arrived on August 3rd. the first of the five days - - expected to have the heaviest traffic, when all the theories devised - - - - underwent the crucial test: whether the system worked in the crunch.

One solution would have been to build more freeways after the games were- awarded to Los Angeles in 1978, but it has long been too late for that. The- alternative is to make the existing network operate at optimun efficiency. - Caltrans (California Department of Transportation) had been working that for more than a decade grappling with traffic crises along the freeways of Los - Angeles and Orange countries from an operations center opened in downtown -- Los Angeles in 1971. All activity is monitored from a quiet room dominated - by a map or the entire region, that stretches the length of one wall. Each - freeway is marked at intervals with red, amber, and green lights. Red means- that traffic is moving at less that 20 miles an hour, a flashing red light - signals an accident. Amber lights indicate that traffic is rolling along - - between 20 and 40 miles an hour, and green lights shine for speed above 40 - miles an hour. At 8.00 A.M. during a normal morning rush hour, says Caltrans Traffic Engineer Robert Zimowski, up to 90 per cent of the freeways leading- into central Lon Angeles show solid red on the map.

When a major accident happens (a crash, a fallen power line) monitoring - devices pinpoint the site and officials begin to respond within four minutes, less than one fifth the time it took before the center went into operation.- Such efficiency has been made possible by increasingly fast computers.

The system Caltrans in now bringing on line can check traffic conditions- at 1,200 locations every 30 seconds while at the same time passing along - - instructions to traffic signals and overhead messages boards along the - - - freeways.

During the Olympics, Caltrans found out what technology can do for a - -- system that is already overtaxed. With no horrendous accidents a great deal- of good driving, and close watch on those green amber and red light up on -- the big board at traffic central, the Olympics could sail on by.

Otherwise, Caltrans could be reduced to flashing the nessages that once - startled drivers on the Santa Monica Freeways: THIS SIGN ISN'T WORKING.

I ANSWER " FALSE " OR " TRUE "

1.- "Caltrans" means "California Department of Transportation"._____

2.- To get people on, over and off major highways with no problems is very easy. _____

3.- The 1984 Olympiad has become an important experiment on traffic theories... _____

4.- Los Angeles and Orange counties have never had traffic crises along their-- freeways..... _____

5.- The map of the region stretches the length of one wall... _____

6.- Each freeways is marked at intervals with red, amber and blue lights..... _____

7.- Red means tha. traffic is rolling along between 40 and 50 miles an hour.... _____

8.- A fallen power line is considered a major accident..... _____

9.- Computers are helping to solve the problem..... _____

10.-The most critical moment will arrive on August 3rd..... _____

II GIVE THE RIGHT ANSWER TAKING IT FROM THE LIST BELOW.

1.- Can the transportation officials solve the traffic problem very easily?..... _____

2.- Are engineers and scientist working together to solve the Los Angeles Traffic problem? _____

3.- Will the traffic problem get worse during the Olympic Games? _____

4.- How many are the sites where the games will be held? ..... _____

5.- Where will the worst traffic problem be located?..... _____

6.- Does the red light mean that traffic is too slow?..... _____

7.- Have the L.A. authorities built an extra network of freeways? _____

8.- Is all activity monitored from two noisy rooms?..... _____

9.- How many locations can be checked every seconds?..... _____

10.-Are many horrendous accidents expected during the Olympiad? _____

NO , THEY AREN'T	1,200 LOCATIONS	NO, THEY CAN'T
NO, THEY HAVEN'T	YES, IT DOES	NO, IT ISN'T
23 SITES	DOWNTOWN	NO, IT DOESN'T
YES, IT WILL	YES, THEY ARE	48 SITES