

Evaluasi Belajar Tahap Akhir Nasional
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Text I

SPACECRAFT

People had thought of building spacecraft several hundred years ago. They had thought of going to the moon and many other planets. Papers on spacecraft can be found among the papers of famous scientist who lived centuries ago. However, the craft could not be built until after World War II.

It is not easy to build a spacecraft. A spacecraft needs a good rocket that is strong enough to send it to outer space. Such a motor was not developed until 1944.

A spacecraft also needs as many as rend million very sophisticated parts. These parts are needed so that the craft can function well when it is flying far away from earth. These parts must have very high precision elements. Each of them must have the right shape and the right size. Such parts could not be mode until after 1940.

Today, spacecraft are being made all the time. They have to be enough to carry astronauts into outer space. What does a spacecraft look like? A spacecraft usually consist of three rockets that are joined together. The three rockets are called stages. The first stage takes the spacecraft to a certain speed and then falls away. The second stage takes it to speed twice as great as the first, and then it also falls away. The third stage takes the spacecraft to its top speed of more than 38,600 kilometers per hour.

Where is the place for the astronauts? It is at the top of the spacecraft. In the nose of the third stage a capsule. In this capsule are the astronauts and the instrument package. This capsule is actually the smallest part of the ship. But all sorts of very sophisticated instruments are found into his capsule. This little capsule is the most important part of the ship.

EBTANAS-SMA-94-01

Each spacecraft usually has three rockets that are called ...

- A. motor
- B. stages
- C. capsules
- D. elements
- E. packages

EBTANAS-SMA-94-02

The function of the rockets is fund in paragraph ...

- A. 1
- B. 2
- C. 3
- D. 4
- E. 5

EBTANAS-SMA-94-03

Which of the following statement is right?

- A. Spacecraft have been built since 1994
- B. All the three stages have the same speed
- C. Out of the three stages, the first it the fasts
- D. The firs rocket falls away as soon as it is air bone
- E. The most important part of the craft is where the astronauts are

EBTANAS-SMA-94-04

How fast is the second rocket? It is ...

- A. half of the first
- B. faster than the third
- C. as fast as the first
- D. double the speed of the first
- E. the fastest of the three rockets

EBTANAS-SMA-94-05

A spacecraft also needs as many as ten million very sophisticated parts. The underlined word means ...

- A. Big
- B. Good
- C. Strong
- D. Simple
- E. Complex

Text 2

MARINE LIFE

The word "marine" comes from the Latin word "mare¹ which means "sea". Marine life means all the animal and plant species that live in the waters of the sea.

The geography of the seabed, the floor of the sea, is not so different from that of the land. There are hills, high mountains, valleys, rolling plains and plateaus. Below the low tide mark, the bottom of the sea slopes gently down word to a depth of about 100 fathoms, in the form of a shelf know as the continental shelf.

On the surface of the sea there are tiny floating plants and animals, including the eggs and young of larger animal and jellyfishes that are called "plankton". The plankton is important because a great many fishes feed on it. Several kinds of animal such as crabs, lobsters, shrimp, squids, octopuses, mollucsc (shellfish of all kinds), anemones and sponges live on the seashore. Such animal can also be found on the continental shelf, but the animals that live in the deeper waters are usually larger.

Seaweeds live in the shallow waters, not deeper than 50 fathoms as they need fairly strong sunlight to assimilate their food. In China and Japan seaweeds are eaten: ill europe carrageen is used for thickening soup and making jellies.

The really deep sea is cold and dark because the sunlight cannot penetrate the depths. The pressure in the deep sea higher than in the shallow water, and the fishes are much more fragile and delicate in appearance than those from parts of the sea where the pressure is lower; Some have large eyes and can see, but other are completely blind.

We should look on the sea as a valuable source food. Fishing industries should know the location of 1 fish they are trying to catch, and how many can be caught without killing off the whole species.

EBTANAS-SMA-94-06

Plankton is layer of tiny animal and plants that live on the ...

- A. seabed
- B. floor of the sea
- C. bottom of the sea
- D. surface of the sea
- E. continental shelf

EBTANAS-SMA-94-07

"... as they need fairly strong sunlight ..." (paragraph 5)

The word 'they' refers to ...

- A. waters
- B. jellies
- C. fathoms
- D. sponges
- E. seaweeds

EBTANAS-SMA-94-08

The description of the bottom of the sea is found in paragraph ...

- A. One
- B. Two
- C. Three
- D. Four
- E. Five

EBTANAS-SMA-94-09

Which of these statement is true according to the text?

- A. Seaweeds can live without sunlight
- B. Marine life means everything found in the sea
- C. Tiny floating plants live in the deep sea
- D. Sunlight can penetrate the very deep sea
- E. The geography of the seabed is similar to that of the land

EBTANAS-SMA-94-10

The plankton is important because a great many fishes feed on it. (paragraph 3)

The underline word means ...

- A. eat
- B. get
- C. catch
- D. attack
- E. swallow

Text 3

HYDROPONICS

Hydroponics is the term used to describe the several ways in which plants can be raised without soil. These methods, also known generally as soilless gardening include raising plants in containers filled with water or any of other nonsoil mediums - including gravel, sand vermiculite and other more exotic medium, such as crushed rock or bricks, and shards of cinder blocks.

There are several excellent reasons for replacing soil with a sterilize medium. Soil-borne pests and diseases are immediately eliminated, as weeds are. And the labour involved is reduced.

More important, raising plants in a nonsoil medium will allow you to grow more plants in limited amount of space. Food crops will mature more rapidly and produce greater yields. Water and fertilizer are conserved, since they can be reused. In addition hydroponics allow you to exert greater control over your plants, to insure more uniform results.

All of this is possible by the relation of a plant with it's growing medium. It isn't soil that plants need-it's the reserves of nutrients and moisture contained in the soil, as well as the support the soil renders the plant. Any growing medium will give adequate support.

The methods of hydroponics gardening developed over the past forty-five years can be divided into categories defined by the medium in which the plant are grown. In water culture, the plants are grow only in water, or in a water and nutrient solution. Sand culture calls for raising, plants in sterile sand, into which a water and nutrient solution is pumped. Aggregate culture replaces the sand, instead of using one of the materials such as gravel or vermiculite, and retaining the method of pumping a water and nutrient solution into the material. Finally, there are number of experimental or unorthodox techniques.

Hydroponics units have been used to replace the conventional benches in a green house, and soil-borne pests and diseases are avoided.

EBTANAS-SMA-94-11

Why is hydroponics known as soil less gardening?

- A. Plants can only be raised in soil
- B. Plants can be raised without soil
- C. Soil in the garden needs much water
- D. Garden is not provided by nonsoil medium
- E. Crushed rocks or bricks are hard for plants

EBTANAS-SMA-94-12

What must be given regularly to the plants raised in hydroponics units?

- A. Gravel and sand
- B. Sand and bricks
- C. Water and fertilizer
- D. Sand and vermiculite
- E. Crushed rocks and bricks

EBTANAS-SMA-94-13

Food crops from hydroponics can be harvested earlier
This information is found in paragraph ...

- A. 2
- B. 3
- C. 4
- D. 5
- E. 6

EBTANAS-SMA-94-14

Which of the following statements is correct according to the text?

- A. Water and fertilizer cannot be raised
- B. Soil-borne pests develop in hydroponics
- C. Raising plants in a nonsoil medium is impossible
- D. Plants are categorized according to their containers
- E. Hydroponics gardening can be operated in limited space

EBTANAS-SMA-94-15

Soil-borne pests and diseases are immediately eliminated (paragraph 2)

The underline word means ...

- A. handled
- B. removed
- C. stopped
- D. destroyed
- E. developed

Text 4

THE SUN AS A SOURCE OF ENERGY

As the supplies of fossil fuels-coal, oil and gas are running out, scientists have been working hard trying to find ways of obtaining other kinds of fuel. They have succeeded in finding one that is very efficient; nuclear fuel. However, the ores which produce this in of energy, e.g. uranium ores, will eventually run out, too. Fortunately a source of abundant energy, which is virtually inexhaustible-sunlight-has been waiting for the scientist.

The sun sends out energy equal to that produced by 10,00 million tons of coal every second, of which the earth receives only one two-billionth part. It is estimated that the energy which falls no one square metre of the earth's surface per second can be used to keep about seven 100 watt lamps burning. The sun's energy is really abundant, but only a limited amount has so far been used by man. The sun can also used as a source of fuel for power plants. Such power plants are still in the experimental stages.

However, it is hoped that they will lead the way to a wider use of solar energy to run machines.

Solar energy can be used in telephone communications, space technology, and farming. Solar batteries have been in experimental use for a number of years to power telephone lines. They are now being used to recharge batteries which power instruments used in space vehicles. Scientists have also succeeded in developing solar pumps that can raise water for irrigation.

The sun seems to be ideal source of energy for a great many uses. Yet to change the abundant sunlight into energy is a different matter. The instruments needed to catch the sun's energy are still very .expensive. However, once man succeeds in catching even a small part of that energy, no body would worry about running out of fossil fuels or uranium ores.

It lines in the hands of the scientist to make this dream come true.

EBTANAS-SMA-94-16

Why do people worry about oil and coal as sources of energy? Because ...

- A. they are decreasing in quality
- B. they are very efficient kinds of fuel
- C. they will run out in the course of time
- D. they are inexhaustible sources of energy
- E. there are abundant fossil fuels on the earth

EBTANAS-SMA-94-17

"Solar energy has been used in many different fields".

This information can be found in paragraph ...

- A. 1 and 2
- B. 2 and 3
- C. 3 and 4
- D. 4 and 5
- E. 5 and 3

EBTANAS-SMA-94-18

Find out the statement which is not correct according to the text

- A. There is plentiful of solar energy
- B. Uranium ores produces nuclear energy
- C. Solar energy can be used in telephone communications
- D. The instrument for catching the sun energy has already been widely developed
- E. Fossil fuels are estimated to be running out

EBTANAS-SMA-94-19

They have succeeded in finding one that is very efficient ; nuclear fuel, (paragraph 1)

'one' refers to ...

- A. oil
- B. gas
- C. ore
- D. fuel
- E. coal

EBTANAS-SMA-94-20

"... e.g. uranium ores, will eventually run out, too." (paragraph 1)

The underlined word means ...

- A. slowly
- B. evenly
- C. finally
- D. exactly
- E. virtually

Text 5

ELECTRIC POWERSUPPLY

The electric current supplied to your home from the power station is alternating current, or AC for short. AC reverses its direction of flow 100 times, every second. It flows 50 times in one direction. AC is easier to generate and to transmit than DC (direct current). Another reason that AC is used for domestic power supplies is that its voltage can be changed by a device called a transformer.

Huge quantities of electrical energy are produced by a power station. All this electricity must be sent out across the country to houses, shops, and factories. To 'push' the electricity out over long distances, very high voltages are needed. However, when the electricity reaches its destination, lower voltages are needed because high voltages are very dangerous.

High voltages are 'stepped-down' by means of a transformer, an invention of the nineteenth-century English scientist Michael Faraday, who also discovered the principle of the dynamo. (The dynamo can change mechanical energy into electrical energy). The transformer consists of two coils of wire, one larger than the other. If AC is passed through one coil, it induces moving lines of magnetic force.

This in turn induces an electric current in the other coil. Suppose coil A has half as many turns as coil B, then the voltage induced in it will be half the voltage in coil B. In this way the voltages can be reduced. At the same time the current can be increased.

The power supply from the power station is stepped-down by transformers from hundreds of thousands of volts to 220 volts for domestic use. Houses are wired with electric circuits. Electricity coming into the house passes through a meter, which measures the amount of electricity used, so that the supplier can charge for it. The current also passes through a fuse box. A fuse protects electrical appliances from overloading. If too much power is taken, a wire in the fuse gets hot and melts, so breaking the circuit and acting as a 'switch'.

EBTANAS-SMA-94-21

The electric energy supplied to our houses is from a ...

- A. Fuse box
- B. Transformer
- C. Power station
- D. Electric meter
- E. Electrical appliance

EBTANAS-SMA-94-22

A transformer is used to ...

- A. Produce electric energy
- B. Protect an appliance from getting too hot
- C. Change the voltage of an electric current
- D. Indicate how much electricity has been used
- E. Change direct current into alternating current

EBTANAS-SMA-94-23

Which statement is true according to the text?

- A. The function of an electric meter is to check whether there is an electric current or not
- B. The electric current which goes into house is changed into direct current first
- C. The electric current which comes from a power plant is alternative current
- D. The amount of electricity that is used can be seen in a fuse box
- E. A fuse will function when electrical appliances are overloaded

EBTANAS-SMA-94-24

What device did Michael Faraday discover?

- A. The fuse
- B. The generator
- C. The transformer
- D. The electrical meter
- E. The electrical appliance

EBTANAS-SMA-94-25

AC is easier to generate and to transmit than direct current.

The underlined word above means to ...

- A. flow
- B. send
- C. induce
- D. supply
- E. change

EBTANAS-SMA-94-26

After taking off, the plane continues to ascend until it reaches an altitude of 25,000 feet.

The opposite of the word 'ascend' is to ...

- A. go down
- B. run down
- C. fall down
- D. come down
- E. climb down

EBTANAS-SMA-94-27

ii) Europe the temperature in each ... differs greatly

- A. Cycle
- B. Season
- C. Climate
- D. Weather
- E. Condition

EBTANAS-SMA-94-28

Forest is a valuable natural resource; that's why we should ... it.

- A. Abandon
- B. Destroy
- C. Neglect
- D. Conserve
- E. Eliminate

EBTANAS-SMA-94-29

If the space crew land on the surface of the moon, they will experience the gravity exerted by the moon. The underlined word means ...

- A. put
- B. used
- C. given
- D. pushed
- E. thrown away

EBTANAS-SMA-94-30

Too many people means that pure water is becoming scarce in many areas.

The antonym of the underlined word is ...

- A. rare
- B. common
- C. strange
- D. plentiful
- E. sufficient

EBTANAS-SMA-94-31

Through ecology, we try, to ... the balance in the ecological system.

- A. Make
- B. Adapt
- C. Release
- D. Restore
- E. Interfere

EBTANAS-SMA-94-32

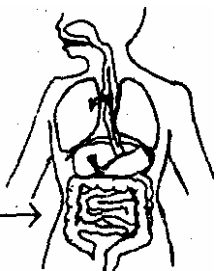
The part of the car shown by the arrow is called ...



- A. Rear light
- B. Turn signal
- C. Wing mirror
- D. Wind screen
- E. Steering wheel

EBTANAS-SMA-94-33

One of the functions of the organ pointed by the arrow is to ...



- A. Digest food
- B. Absorb proteins
- C. Neutralize poison
- D. Send out carbon dioxide
- E. Absorb water and mineral

EBTANAS-SMA-94-34

Which of the following is not related to the wildlife conservation?

- A. Aviation
- B. Extinction
- C. Protection
- D. Preservation
- E. Reforestation

EBTANAS-SMA-94-35

Only qualified medical ... are allowed to administer this powerful drug.

- A. Dentitions
- B. Scientist
- C. Supervisors
- D. Practitioners
- E. Administrators

EBTANAS-SMA-94-36

The children are watching TV now because they ... their homework.

- A. Are doing
- B. Had done
- C. Have done
- D. Were doing
- E. Will have done

EBTANAS-SMA-94-37

X : Have you sent the letter?

Y : No, I haven't finished typing it.

X : What? You ... have sent it yesterday

Y : I'm sorry. I'll send it immediately

- A. may
- B. might
- C. could
- D. would
- E. should

EBTANAS-SMA-94-38

The" man is an engineer. His wife had a birthday party yesterday.

The best combination of the two sentences is ...

- A. The wife who is an engineer had a birthday party yesterday
- B. The wife who had a birthday party yesterday is an engineer
- C. The man who had a birthday party yesterday is an engineer
- D. The man whose wife is an engineer had a birthday party yesterday
- E. The man whose wife had a birthday party yesterday is an engineer

EBTANAS-SMA-94-39

Amanda always gets good marks in her exams ...

- A. If she doesn't study at all
- B. But she always studies hard
- C. Although she has studied hard
- D. Because she always studies hard
- E. Therefore she never gets a reward

EBTANAS-SMA-94-40

Budi : I like that film very much

Rahmat : ... I have seen it three times

- A. so am I
- B. I am too
- C. So do I
- D. I don't either
- E. Neither do I

EBTANAS-SMA-94-41

The naughty boy shouts and walks unsteadily as if he were drunk. Actually the boy ...

- A. is drunk
- B. was drunk
- C. is not drunk
- D. has been drunk
- E. had been drunk

EBTANAS-SMA-94-42

Dono failed his exams. He was very unhappy
If only Dono ... he would have passed his exams.

- A. studied hard
- B. has studied hard
- C. has studied hard
- D. was studying hard
- E. has been studying hard

EBTANAS-SMA-94-43

I realize that I am a naughty boy, but I never hurt you

- A. Do I
- B. Do you
- C. Don't I
- D. Don't you
- E. Aren't I

EBTANAS-SMA-94-44

Debora : "What's your plan after finishing your study at the SMA

Andi : "I ... a job, because my parents can't support my education anymore."

- A. would like to get
- B. don't try to get
- C. am afraid of getting
- D. am sorry for getting
- E. am worried about getting

EBTANAS-SMA-94-45

It's already 3 p.m. Lusi, a twelve year old girl, hasn't come home yet

Mother : ... something bad happens to her

Father : Don't worry. I'm sure she is all right.

- A. I'm sorry
- B. I'm afraid
- C. I'm not sure
- D. I don't know
- E. I don't care

EBTANAS-SMA-94-46

Look at these pictures!



Jono's house



Iwan house



Harry's house

Write two sentences based on the pictures above comparing their size

- 1. Iwan's house with Jono's
- 2. Harry's house with the two others

EBTANAS-SMA-94-47

Write two sentences using 'have' and 'get' which have the same meaning as the sentences below. Adi never repairs his car himself. He always asks mechanic to do it.

- 1.
- 2.

EBTANAS-SMA-94-48

Complete the dialogue with two possible expression
Leny : ... your dictionary, Santo? Mine is not a complete one

Santo : Sure. Here you are

- 1.
- 2.

EBTANAS-SMA-94-49

Complete the dialogue with two possible expression!

You want to post a letter, but you are not able to go to the post office. You need someone's help.

+ : 1.

2.

- : I'm sorry. I have a lot of work to do

EBTANAS-SMA-94-50

Complete the dialogue with two possible expression

Student A : "What do you think of our seminar?"

Students : 1. the seminar is very useful for us

2. the seminar is very useful for us

Student A : "I think so."