SOAL UTS

Match the words with their definitions.

1	Subtraction	A	A pair of numbers, each of which is the sume of the factors of the other(e.g. 220 and 284)
2	Digit	B	A whole number and not a fraction
3	Conjecture	C	The process of taking matrix, vector, or other quantity away from another under specific rules to obtain the difference
4	Amicable number	D	A number that result from dividing one whole number by another
5	Composite number	E	A positive number(= larger than zero)that can be divided by positive number other than 1 and itself
6	Integer	F	Side by side and having the same distance continuously between them
7	Speculation	G	To invent a plan, system, object etc. usually cleverly or using imagination
8	To devise	H	An unproven mathematical or scientific theorem
9	Fraction	I	The activity of guessing possible answers to a question without having enough information to be certain
10	Parallel	J	Any of the numerals from 0 to 9, especially when forming part of a number

Choose the best topic of the paragraphs

11. Some of the largest trees in the world are in California. These are called redwood trees. Redwood National Park is a large forest of redwood trees. The visitors in the park can walk and drive trhough in the forest to look at the trees. Some redwoods are hundreds of years old. They are very tall and very wide at the bottom. One tree has a large hole at the bottom of it. The hole is so big you can drive a car trhough it.

What is the topic of the paragraph?

a) Park in California
b) Redwood trees in California
c) The age of Redwood trees
d) National Park

12. In many hilly areas of Scotland, there once were large forests. These forest had rich dirt that was good for plants. The trees in the forest kept the dirt in place. But over many years, people cut down the trees. They needed the wood for burning and they needed the land for farming. With no trees, a lot of good dirt was washed away by the rain. The land became rocky and not good for farming. Now the Scottish government wants to make the land better

again. It is planting new trees. These new forests look nice and green. They also will improve the land for future.

What is the topic of the paragraph?

a) Forests in the future
b) Rocky hills in Scotland
c) The forests of Scotland
d) Good dirt in the forests

13. Large forest are important to us in many ways. They give us wood for building and heating. They are a home for many kinds of plants and animals. For many city people, forest are a place to go for vacation. There they can learn about nature, breathe fresh air, and sleep in a quiet place. There is one one more reson why forests are important for everyone. The leaves on trees help clean the air.

What is the topic of the paragraph?

a) The importance of forest
b) Taking vacations in forests
c) Large forests around the world
d) Learning about the nature

14. The Everglades is in the centre of south Florida. It is a wild area with no towns or houses. The Everglades is famaous for its wildlife and plants. Some of these plants and animals live only in the Everglades. They live there because of the warm climate and water. In fact, the Everglades has a lots of water. In the middle of the Everglades is a very wide river, called the "River of Grass". It canges with the seasons. In the rainy season(May trhough October) it is 50 miles(80 kilometers) wide in some places.

What is the topic of the paragraph?

a) The climate of florida
b) Plants and wildlife
c) The Florida Everglades
d) Big rivers in Everglades

15. The animals in the Everglades have to move with the seasons. During the dry season, from November to April, most of the river is dry. Snakes, fish, frogs, and other water animals move to the deeper pool of water. Alligators stay near the pools to eat fish. Some birds make their nests nearby so they can also eat fish in the pools. The, in May, the spring rains begin. The animals start moving to other parts of the Everglades. They know there will be more water and food everywhere.

What is the topic of the paragraph?

a) Animals in the Everglades

b) The dry season in the Everglades
c) Why Everglades animals move
d) Food in the Everglades

Read the passage carefully and answer the questions

Language students often think they have a memory problem. They worry because they can't remember vocabulary. They think somethingis wrong with their brain. In fact, the problem is not their brain or their memory. The problem is he way they study.

If you want to improve your memory, its important to understand how it works. There are two kinds of memory: short-term and long-term. All information goes into your short-term memory first. But it can stay there for just a few minutes. In order to remember something for more than a few minutes, it must move into your long-term memory.

Only some things move into your long-term memory. Which things? This is an important question for a student. In fact, your long-term memory keeps things that are interesting or important to you. That's why you remember big events in your life or your favorite sport events. Your long-term memory keeps other things, too. It holds onto things that you have thought about and worked with. So if you want to remember words, you have to work with them in some way.

Many students study vocabulary by repeating the words. This may beenough to remember them for a while. But after a day or a week, you may have lost them. The reason for this is very simple. Long-term memory is like a very big library with many, many books. And like a library, it is organized. When you put away a book-or a memory-you can't just leave it anywhere. If you want to find it again, you have to put it in a certain place.

Repeating a new word doesn't help you remember it for long, because it doesn't give you any way to find it again. You need to make a place for the word in your long-term memory. There are many ways you can do this. You can write sentences with the word. Or you can make a very short story about it. You can also make a picture in your mind with the word.For example, if the word is *height,* you can think of the tallest person you know and try to guess his height.

All of these activities are ways to work with words. They make the meaning of words stronger in your long-term memory. And they give you a way to find words when you need it.

16. This passage is about

a) How you can improve your memory.
b) What is wrong with your brain.
c) Why you often forget words.
d) What your long-term memory does.

17. Language students don't remember vocabulary because they

a) Don't have a good brain.
b) Have a memory problem.
c) Don't study the right way.
d) Worry to much.

18. Information stays in your short-term memory for

a) A few minutes.
b) A long time.
c) Your whole life.
d) A few days.

19. Things that are interesting or important to you

a) Go into your short-them memory.
b) Don't stay in your brain.
c) Stay in short-term memory.
d) Move into long-term memory.

20. If you want to remember words, you should

a) Keep them in your short-term memory.
b) Work with them in some way.
c) Worry about your brain.
d) Go to the library every day.

21. If you repeat words,

a) They may get lost in the library.
b) They will always be in your memory.
c) You are sure to remember them later.
d) You may not remember them later.

22. Your long-term memory is like a

a) Well-organized library.
b) Very big dictionary.
c) Well-organized school.
d) Very big brain.

1. If you make a little story about a word, you'll
   a) Forget the word.
   b) Find your library book.
   c) Remember it better.
   d) Learn to write stories.

Read the passage and answer the questions 23-30

All mammals feed their young. Beluga whale mothers, for example, nurse their calves for some twenty months, until they are about to give birth again and their young are able to find their own food. The behavior of feeding of the young is built into the reproductive system. It is non-elective part of parental care and the defining feature of a mammal, the most important thing that mammals-- whether marsupials, platypuses, spiny anteaters, or placental mammals -- have in common.

But not all animal parents, even those that tend their offspring to the point of hatching or birth, feed their young. Most egg-guarding fish do not, for the simple reason that their young are so much smaller than the parents and eat food that is also much smaller than the food eaten by adults. In reptiles, the crocodile mother protects her young after they have hatched and takes them down to the water, where they will find food, but she does not actually feed them. Few insects feed their young after hatching, but some make other arrangement, provisioning their cells and nests with caterpillars and spiders that they have paralyzed with their venom and stored in a state of suspended animation so that their larvae might have a supply of fresh food when they hatch.

For animals other than mammals, then, feeding is not intrinsic to parental care. Animals add it to their reproductive strategies to give them an edge in their lifelong quest for descendants. The most vulnerable moment in any animal's life is when it first finds itself completely on its own, when it must forage and fend for itself. Feeding postpones that moment until a young animal has grown to such a size that it is better able to cope. Young that are fed by their parents become nutritionally independent at a much greater fraction of their full adult size. And in the meantime those young are shielded against the vagaries of fluctuating of difficult-to-find supplies. Once a species does take the step of feeding its young, the young become totally dependent on the extra effort. If both parents are removed, the young generally do not survive.

23. What does the passage mainly discuss?

(A) The care that various animals give to their offspring.
(B) The difficulties young animals face in obtaining food.

(C) The methods that mammals use to nurse their young.
(D) The importance among young mammals of becoming independent.

24. The author lists various animals in line 5 to

(A) contrast the feeding habits of different types of mammals
(B) describe the process by which mammals came to be defined
(C) emphasize the point that every type of mammal feeds its own young
(D) explain why a particular feature of mammals is nonelective

25. The word "tend" in line 7 is closest in meaning to

(A) sit on (B) move (C) notice (D) care for

26. What can be inferred from the passage about the practice of animal parents feeding their young?

(A) It is unknown among fish.
(B) It is unrelated to the size of the young.
(C) It is dangerous for the parents.
(D) It is most common among mammals.

27. The word "provisioning" in line 13 is closest in meaning to

(A) supplying (B) preparing (C) building (D) expanding

28. According to the passage, how do some insects make sure their young have food?

(A) By storing food near their young.
(B) By locating their nests or cells near spiders and caterpillars.
(C) By searching for food some distance from their nest.
(D) By gathering food from a nearby water source.

29. The word "edge" in line 17 is closest in meaning to

(A) opportunity (B) advantage (C) purpose (D) rest

30. The word "it" in line 20 refers to

(A) feeding (B) moment (C) young animal (D) size

31. According to the passage, animal young are most defenseless when

(A) their parents are away searching for food
(B) their parents have many young to feed
(C) they are only a few days old
(D) they first become independent

History of Mathematics

The area of study known as the history of mathematics is primarily an investigation into the origin of discoveries in mathematics and, to a lesser extent, an investigation into the mathematical methods and notation of the past. Before the modern age and the worldwide spread of knowledge, written examples of new mathematical developments have come to light only in a few locales. From 3000 BC the Mesopotamian states of Sumer, Akkad and Assyria, together with Ancient Egypt and Ebla began using arithmetic, algebra and geometry for purposes of taxation, commerce, trade and also in the field of astronomy and to formulate calendars and record time.

The most ancient mathematical texts available are from Mesopotamia and Egypt - Plimpton 322 (Babylonian c. 1900 BC), the Rhind Mathematical Papyrus (Egyptian c. 2000–1800 BC) and the Moscow Mathematical Papyrus (Egyptian c. 1890 BC). All of these texts mention the so-called Pythagorean triples and so, by inference, the Pythagorean theorem, seems to be the most ancient and widespread mathematical development after basic arithmetic and geometry.

The study of mathematics as a "demonstrative discipline" begins in the 6th century BC with the Pythagoreans, who coined the term "mathematics" from the ancient Greek μάθημα (mathema), meaning "subject of instruction". Greek mathematics greatly refined the methods (especially through the introduction of deductive reasoning and mathematical rigor in proofs) and expanded the subject matter of mathematics. Although they made virtually no contributions to theoretical mathematics, the ancient Romans used applied mathematics in surveying, structural engineering, mechanical engineering, bookkeeping, creation of lunar and solar calendars, and even arts and crafts. Chinese mathematics made early contributions, including a place value system and the first use of negative numbers. The Hindu–Arabic numeral system and the rules for the use of its operations, in use throughout the world today evolved over the course of the first millennium AD in India and were transmitted to the Western world via Islamic mathematics through the work of Muḥammadibn Mūsā al-Khwārizmī. Islamic mathematics, in turn, developed and expanded the mathematics known to these civilizations. Contemporaneous with but independent of these traditions were the mathematics developed by the Maya civilization of Mexico and Central America, where the concept of zero was given a standard symbol in Maya numerals.

write 6 questions based on the text above

1.

2.

3.

4.

5.

6.

INTERNET DISTANCE EDUCATION

The World Wide Web (www) is beginning to see and to develop activity in this regard and this activity is increasing dramatically every year. The Internet offers full university level courses to all registered students, complete with real time seminars and exams and professors' visiting hours. The Web is extremely flexible and its distance presentations and capabilities are always up to date. The students can get the text, audio and video of whatever subject they wish to have.

The possibilities for education on the Web are amazing. Many college and university classes presently create web pages for semester class projects. Research papers on many different topics are also available. Even primary school pupils are using the Web to access information and pass along news to others pupils. Exchange students can communicate with their classmates long before they actually arrive at the new school.

There are resources on the Internet designed to help teachers become better teachers – even when they cannot offer their students the benefits of an on-line community. Teachers can use university or college computer systems or home computers and individual Internet accounts to educate themselves and then bring the benefits of the Internet to their students by proxy.

write 4 questions based on the passage above

1.

2.

3.

4.