CODE 1
READING PAPER
Time permitted: 60 minutes
Number of questions: 40

Directions: *In this section you will read FOUR different passages. Each one is followed by 10 questions about it. For questions 1-40, you are to choose the best answer A, B, C or, to each question. Then, on your answer sheet, find the number of the question and fill in the space that corresponds to the letter of the answer you have chosen. Answer all questions following a passage on the basis of what is stated or implied in that passage.*

You have 60 minutes to answer all the questions, including the time to transfer your answers to the answer sheet.

PASSAGE 1 – Questions 1-10

The modem comic strip started out as ammunition in a newspaper war between giants of the American press in the late nineteenth century. The first full-color comic strip appeared in January 1894 in the New York *World*, owned by Joseph Pulitzer. The first regular weekly full-color comic supplement, similar to today's Sunday funnies, appeared two years later, in William Randolph Hearst's rival New York paper, the *Morning Journal*.

Both were immensely popular, and publishers realized that supplementing the news with comic relief boosted the sale of papers. The *Morning Journal* started another feature in 1896, the "Yellow Kid," the first continuous comic character in the United States, whose creator, Richard Outcault, **had been lured away from the *World* by the ambitious Hearst**. The "Yellow Kid" was in many ways a pioneer. Its comic dialogue was the strictly urban farce that came to characterize later strips, and **it** introduced the speech balloon inside the strip, usually placed above the characters' heads.

The first strip to **incorporate** all the elements of later comics was Rudolph Dirks's "Katzenjammer Kids," based on Wilhelm Busch's *Max and Moritz*, a European satire of the nineteenth century. The "Kids" strip, first published in 1897, served as the **prototype** for future American strips. It contained not only speech balloons, but a continuous cast of characters, and was divided into small regular panels that did away with the larger panoramic scenes of earlier comics.

Newspaper syndication played a major role in spreading the popularity of comic strips throughout the country. Though weekly colored comics came first, daily black and-white strips were not far behind. They first appeared in the Chicago *American* in 1904. It was followed by many imitators, and by 1915 blackand-white comic strips had become a **staple** of daily newspapers around the country.

1. What does the passage mainly discuss?
   - A. A comparison of two popular comic strips
   - B. The differences between early and modern comic strips
   - C. The effects of newspapers on comic strip stories
   - D. Features of early comic strips in the United States
2. Why does the author mention Joseph Pulitzer and William Randolph Hearst? A. They established New York's first newspaper.
   - B. They published comic strips about the newspaper war.
   - C. Their comic strips are still published today.
   - D. They owned major competitive newspapers.
3. The passage suggests that comic strips were popular for which of the following reasons? A. They provided a break from serious news stories.
   - B. Readers enjoyed the unusual drawings.
   - C. Readers could identify with the characters.
   - D. They were about real-life situations.
4. To say that Richard Outcault had been **"lured away from"** the *World by* Hearst means which of the following?
   - A. Hearst convinced Outcault to leave the *World*.
   - B. Hearst fired Outcault from the *World*.
   - C. Hearst warned Outcault to leave the *World*.
   - D. Hearst wanted Outcault to work for the *World*.

5. The word "it" in line 11 refer to
   A. The "Yellow Kid"
   B. dialogue
   C. farce
   D. balloon
6. According to the passage, the "Yellow Kid" was the first comic strip to do all of the following EXCEPT
   A. feature the same character in each episode
   B. include dialogue inside a balloon
   C. appear in a Chicago newspaper
   D. characterize city life in a humorous way
7. The word "**incorporate**" is closest in meaning to
   A. affect
   B. create
   C. combine
   D. mention
8. The word "**prototype**" is closest in meaning to
   A. story
   B. humor
   C. drawing
   D. model
9. The word "**staple**" is closest in meaning to
   A. regular feature
   B. popular edition
   C. new version
   D. huge success
10. In what order does the author discuss various comic strips in the passage?
   A. In alphabetical order by title
   B. In the order in which they were created
   C. According to the newspaper in which they appeared
   D. From most popular to least popular

PASSAGE 2 – Questions 11-20

Every drop of water in the ocean, even in the deepest parts, responds to the forces that create the tides. No other force that affects the sea is so strong. Compared with the tides, the waves created by the wind are surface movements **felt** no more than a hundred fathoms below the surface. The currents also seldom involve more than the upper several hundred fathoms despite their impressive sweep.

The tides are a response of the waters of the ocean to the pull of the Moon and the more distant Sun. In theory, there is a gravitational attraction between the water and even the outermost star of the universe. **In reality**, however, the pull of remote stars is so slight as to be obliterated by the control of the Moon and, to a lesser extent, the Sun. Just as the Moon rises later each day by fifty minutes, on the average, so, in most places, the time of high tide is **correspondingly** later each day. And as the Moon waxes and wanes in its monthly cycle, so the height of the tide varies. The tidal movements are strongest when the Moon is a sliver in the sky, and when it is full. These are the highest flood tides and the lowest ebb tides of the lunar month and are called the spring tides. At these times the Sun, Moon, and Earth are nearly in line and the pull of the two heavenly bodies is added together to bring the water high on the beaches, to send its surf upward against the sea cliffs, and to draw a high tide into the harbors. Twice each month, at the quarters of the Moon, when the Sun, Moon and Earth lie at the apexes of a triangular **configuration** and the pull of the Sun and Moon are opposed, the moderate tidal movements called neap tides occur. Then the difference between high and low water is less than at any other time during the month.

11. What is the main point of the first paragraph?
   A. The waves created by ocean currents are very large.
   B. Despite the strength of the wind, it only moves surface water.
   C. Deep ocean water is seldom affected by forces that move water.
   D. The tides are the most powerful force to affect the movement of ocean water.

12. The word "**felt**" is closest in meaning to
    A. based
    B. dropped
    C. detected
    D. explored
13. The words "**In reality**" are closest in meaning to
A. surprisingly
    B. actually
    C. characteristically
    D. similarly
14. It can be inferred from the passage that the most important factor in determining how much gravitational effect one object in space has on the tides is
    A. size
    B. distance
    C. temperature
    D. density
15. The word "**correspondingly**" is closest in meaning to
    A. unpredictably
    B. interestingly
    C. similarly
    D. unusually
16. What is the cause of spring tides?
    A. Seasonal changes in the weather
    B. The gravitational pull of the Sun and the Moon when nearly in line with the Earth
    C. The Earth's movement around the Sun
    D. The triangular arrangement of the Earth, Sun, and Moon
17. The word "configuration" is closest in meaning to
    A. unit
    B. center
    C. surface
    D. arrangement
18. Neap tides occur when
    A. the Sun counteracts the Moon's gravitational attraction
    B. the Moon is full
    C. the Moon is farthest from the Sun
    D. waves created by the wind combine with the Moon's gravitational attraction
19. According to the passage, all of the following statements about tides are true EXCEPT:
    A. The time of high tide is later each day.
    B. Tides have a greater effect on the sea than waves do.
    C. The strongest tides occur at the quarters of the Moon.
    D. Neap tides are more moderate than spring tides.
20. Where in the passage does the author mention movements of ocean water other than those caused by tides?
    A. Lines 2-5
    B. Lines 9-11
    C. Lines 12-14
    D. Lines 15-19

PASSAGE 3 – Questions 21-30

Barbed wire, first patented in the United States in 1867, played an important part in the development of American farming, as it enabled the settlers to make effective fencing to enclose their land and keep cattle away from their crops. This had a considerable effect on cattle ranching, since the herds no longer had **unrestricted** use of the plains for grazing, and the fencing led to conflict between the farmers and the cattle ranchers.

Before barbed wire came into general use, fencing was often made from serrated wire, which was unsatisfactory because it broke easily when under strain, and could **snap** in cold weather due to contraction. The first practical machine for producing barbed wire was invented in 1874 by an Illinois farmer, and between then and the end of the century about 400 types of barbed wire were devised, of which only about a dozen were ever put to practical use.

Modern barbed wire is made from mild steel, high-tensile steel, or aluminum. Mild steel and aluminum barbed wire have two strands twisted together to form a cable that is stronger than single-strand wire and less affected by temperature changes. Single strand wire, round or oval, is made from high-tensile steel with the barbs crimped or welded on. The steel wires used are galvanized – coated with zinc to make them rustproof. The two wires that make up the line wire or cable are **fed** separately into a machine at one end. They leave it at the other end twisted together and barbed.The wire to make the barbs is fed into the machine from the sides and cut to length by **knives** that cut diagonally through the wire to produce a sharp point. This process continues automatically, and the finished barbed wire is wound onto reels, usually made of wire, in lengths of 400 meters or in weights of up to 50 kilograms. A variation of barbed wire is also used for military purposes. It is formed into long coils or entanglements called concertina wire.

21. What is the main topic of the passage?

A. Cattle ranching in the United States
B. A type of fencing.
C. Industrial uses of wire.
D. A controversy over land use.

22. The word "**unrestricted**" is closest in meaning to

A. unsatisfactory
B. difficult
C. considerable
D. unlimited

23. The word "**snap**" could best be replaced by which of the following?

A. freeze
B. click
C. loosen
D. break

24. What is the benefit of using two-stranded barbed wire?

A. Improved rust-resistance
B. Increased strength
C. More rapid attachment of barbs
D. Easier installation

25. According to the author, the steel wires used to make barbed wire are specially processed to

A. protect them against rust
B. make them more flexible
C. prevent contraction in cold weather
D. straighten them

26. The word "**fed**" is closest in meaning to

A. put
B. eaten
C. bitten
D. nourished

27. The knives referred to in line 19 are used to

A. separate double-stranded wire
B. prevent the reel from advancing too rapidly
C. twist the wire
D. cut the wire that becomes barbs

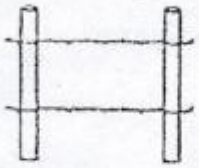
28. What is the author's purpose in the third paragraph?

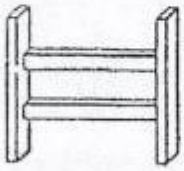
A. To explain the importance of the wire
B. To outline the difficulty of making the wire
C. To describe how the wire is made
D. To suggest several different uses of th

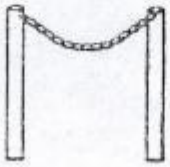
29. According to the passage, concertina wire is used for

A. livestock management
B. international communications
C. prison enclosures
D. military purposes

30. Which of the following most closely resembles the fencing described in the passage?

A.


B.


C.


D.


PASSAGE 4 – Questions 31-40

Each advance in microscopic technique has provided scientists with new perspective, on the function of living organisms and the nature of matter itself. The invention of the visible light microscope late in the sixteenth century introduced a previously unknown realm of single-celled plants and animals. In the twentieth century, electron microscopes have provided direct views of viruses and **minuscule** surface structures. Now another type of microscope, one that utilizes X rays rather than light or electrons, offers a different way of examining tiny details; **it** should extend human perception still farther into the natural world.

The dream of building an X-ray microscope dates to 1895; its development, however, was virtually halted in the 1940's because the development of the electron microscope was progressing rapidly. During the 1940's electron microscopes routinely achieved resolution better than that possible with a visible-light microscope, while the performance of X-ray microscopes resisted improvement. In recent years, however, interest in X-ray microscopes has revived, largely because of advances such as the development of new sources of X-ray illumination. As a result, the brightness available today is millions of times that of X-ray tubes, which, for most of the century, were the only available sources of soft X rays.

The new X-ray microscopes considerably improve on the resolution provided by optical microscopes. They can also be used to map the distribution of certain chemical elements. Some can form pictures in extremely short times; others hold the promise of special capabilities such as three-dimensional imaging. Unlike conventional electron microscopy, X ray microscopy **enables** specimens to be kept in air and in water, which means that biological samples can be studied under conditions similar to their natural state. The illumination used, so-called soft X rays in the wavelength range of twenty to forty angstroms (an angstrom is one ten-billionth of a meter), is also sufficiently penetrating to image intact biological cells in many cases. Because of the wavelength of the X [illegible]

highest resolution possible with electron microscopes. **Rather**, their special properties will make possible investigations that will complement those performed with light- and electron-based instruments.

31. What does the passage mainly discuss?

A. The detail seen through a microscope
B. Sources of illumination for microscope
C. A new kind of microscope
D. Outdated microscopic techniques

32. According to the passage, the invention of the visible-light microscope allowed scientists to

A. see viruses directly
B. develop the electron microscope later on
C. understand more about the distribution of the chemical elements
D. discover single-celled plants and animals they had never seen before

33. The word "**minuscule**" is closest in meaning to

A. circular
B. dangerous
C. complex
D. tiny

34. The word "**it**" refers to

A. a type of microscope
B. human perception
C. the natural world
D. light

35. Why does the author mention the visible-light microscope in the first paragraph?

A. To begin a discussion of sixteenth-century discoveries
B. To put the X-ray microscope in a historical perspective
C. To show how limited its uses are
D. To explain how it functioned

36. Why did it take so long to develop the X-ray microscope? A. Funds for research were insufficient.
B. The source of illumination was not bright enough until recently.
C. Materials used to manufacture X-ray tubes were difficult to obtain.
D. X-ray microscopes were too complicated to operate.

37. The word "enables" in line 20 is closest in meaning to

A. constitutes
B. specifies
C. expands
D. allows

38. The word "Rather" in line 25 is closest in meaning to

A. significantly
B. preferably
C. somewhat
D. instead

39. The word "those" in line 29 refers to

A. properties
B. investigations
C. microscopes D. X rays

40. Based on the information in the passage, what can be inferred about X-ray microscopes in the future?

A. They will probably replace electron microscopes altogether.
B. They will eventually be much cheaper to produce than they are now.
C. They will provide information not available from other kinds of microscopes.
D. They will eventually chance the illumination range that they now use.