Q.I: Read the following passages and then answer the questions. [15 mrks]

A

As computers have become powerful tools for the rapid and economic production of pictures, computer graphics has emerged as one of the most rapidly growing fields in computer science. It is used routinely in such diverse areas as business, industry, art, government, education, research, training, and medicine.

One of the initial uses of computer graphics, and ultimately its greater use, has been as an aid to design, generally referred to as computer-aided design (CAD). One of its greatest advantages is that designers can see how an object will look after construction and make changes freely and much more quickly than with hand drafting. For three-dimensional rendering of machine parts, engineers now rely heavily on CAD. Automobile, spacecraft, aerospace, and ship designers use CAD techniques to design vehicles and test their performance. Building designs are also created with computer graphics systems. Architects can design a building layout, create a three-dimensional model, and even go for a simulated "walk" through the rooms or around the outside of the building.

Business graphics is another rapidly growing area of computer graphics, where it is used to create graphs, charts, and cost models to summarize financial, statistical, mathematical, scientific, and economic data. As an educational aid, computer graphics can be used to create weather maps and cartographic materials. Computer art also has creative and commercial art applications, where it is used in advertising, publishing, and film production, particularly for computer animation, which is achieved by a sequential process.

NOW ANSWER THE FOLLOWING [CHOOSE 6 ONLY]

1. What does the passage mainly discuss?
   a. Routine uses of computers
   b. Computer graphics applications
   c. The rapidly growing field of computer science
   d. Computers as the architects of the future

2. The word "it" in line 3 refers to
   a. Computer graphics
   b. Computer science
   c. Fields
   d. Computers
3. According to the passage, architects use CAD to
   a. Inspect buildings
   b. Create graphs
   c. Make cartographic materials
   d. Create three-dimensional models

4. Where in the passage does the author discuss the greatest advantage of computer-aided design?
   a. Lines 4-8
   b. Lines 8-10
   c. Lines 14-17
   d. Lines 19-22

5. According to the passage, engineers use CAD for
   a. A simulated "walk" through model rooms
   b. Rendering machine parts
   c. Making cost models
   d. Advertising

6. The word "applications" in line 23 means
   a. Jobs
   b. Uses
   c. Creativity
   d. Layers

7. Which of the following is NOT mentioned as a use of computer graphics in business?
   a. Charts
   b. Cost models
   c. Graphs
   d. Hiring

8. The paragraph following this passage would most likely be about
   a. Computer animation
   b. Flight training
   c. Cost models
   d. Applications of CAD in medicine

---B---

Cities develop as a result of functions that they can perform. Some functions result directly from the ingenuity of the citizenry, but most functions result from the needs of the local area and of the surrounding hinterland (the region that supplies goods to the city and to which the city furnishes services and other goods). Geographers often make a distinction between the situation and the site of a city. Situation refers to the general position in relation to the surrounding region, whereas site involves physical characteristics of the specific location. Situation is normally much more important to the continuing prosperity of a city. If a city is well situated in regard to its hinterland, its development is much more likely to continue. Chicago, for example, possesses an almost unparalleled situation: it is located at the southern end of a huge lake that forces east-west transportation lines to be compressed into its vicinity, and at a meeting of significant land and water transport routes. It also overlooks what is one of the world’s finest large farming regions. These factors ensured that Chicago would become a great city regardless of the disadvantageous characteristics of the available site, such as being prone to flooding during thunderstorm activity.
Similarly, it can be argued that much of New York City’s importance stems from its early and continuing advantage of situation. Philadelphia and Boston both originated at about the same time as New York and shared New York’s location at the western end of one of the world’s most important oceanic trade routes, but only New York possesses an 20) easy-access functional connection (the Hudson-Mohawk lowland) to the vast Midwestern hinterland. This account does not alone explain New York’s primacy, but it does include several important factors. Among the many aspects of situation that help to explain why some cities grow and others do not, original location on a navigable waterway seems particularly applicable. Of course, such characteristic as slope, drainage, power 25) resources, river crossings, coastal shapes, and other physical characteristics help to determine city location, but such factors are normally more significant in early stages of city development than later.

NOW ANSWER THE FOLLOWING [CHOOSE 2 ONLY]

1. What does the passage mainly discuss?
(A) The development of trade routes through United States cities
(B) Contrasts in settlement patterns in United States
(C) Historical differences among three large United States cities
(D) The importance of geographical situation in the growth of United States cities

2. The word “ingenuity” in line 2. is closest in meaning to
(A) wealth
(B) resourcefulness
(C) traditions
(D) organization

3. The passage suggests that a geographer would consider a city’s soil type part of its
(A) hinterland
(B) situation
(C) site
(D) function

4. According to the passage, a city’s situation is more important than its site in regard to the city’s
(A) long-term growth and prosperity
(B) ability to protect its citizenry
(C) possession of favorable weather conditions
(D) need to import food supplies

5. The author mentions each of the following as an advantage of Chicago’s location EXCEPT its.
(A) hinterland
(B) nearness to a large lake
(C) position in regard to transport routes
(D) flat terrain

6. The word “characteristics” in line 14 is closest in meaning to
(A) choices
(B) attitudes
(C) qualities
(D) inhabitants

7. The primary purpose of paragraph 1 is to
(A) summarize past research and introduce a new study
(B) describe a historical period
(C) emphasize the advantages of one theory over another
(D) define a term and illustrate it with an example
8. According to the passage, Philadelphia and Boston are similar to New York City in
   (A) size of population
   (B) age
   (C) site
   (D) availability of rail transportation

9. The word “functional” in line 20 is closest in meaning to
   (A) alternate
   (B) unknown
   (C) original
   (D) usable

10. The word “it” in line 21 refers to
    (A) account
    (B) primacy
    (C) connection
    (D) hinterland

11. The word “significant” in line 26 is closest in meaning to
    (A) threatening
    (B) meaningful
    (C) obvious
    (D) available

Q.II: Choose the word or phrase that will correctly complete the statement.
Choose 15 only. [15mrks]

1. Mars, ________, has been a source of human fascination for untold generations
   of sky gazers.
   A. the fourth planet from the Sun
   B. it is the fourth planet from the Sun
   C. which the fourth planet from the Sun is it
   D. is it the fourth planet from the Sun

2. Above-ground swimming pools have ________ the flexibility of being able to be
   moved from place to place but also the efficiency of using less water than standard
   in-ground pools.
   A. that
   B. all
   C. in addition
   D. not only

3. ________ the manatee of south Florida is being pushed to the edge of extinction due
   to the invasion of its habitat by motorized boats has been shown by marine
   researchers.
   A. In that
   B. That
   C. Although
   D. Unless

4. Despite the appearance of being merely pests, ants can serve a garden by eliminating
   other bothersome insects and ________.
   A. they can aerate the soil
   B. aerating the soil
   C. to aerate the soil
   D. that can aerate the soil
5. Ethyl cyan acetate is derived ________ of an alkali cyanide and chloroacetic ethyl ester.
   A. at the reaction  
   B. from the reaction  
   C. to the reaction  
   D. above the reaction

6. ________ a cold front meets a warm front, an area of turbulent air is created often producing thunderstorms and tornadoes.
   A. And  
   B. When  
   C. That  
   D. However

7. ________ of Willa Catha present an unadorned picture of life on the prairies of the Midwestern United States during the 19th century.
   A. The stories who  
   B. That the novels  
   C. The novels which  
   D. The novels

8. Sugar intake, particularly that of refined sugar, ________ curtailed by most overweight people wishing to lessen their corpulence.
   A. must being  
   B. which must  
   C. must be  
   D. must

9. Economics ________ is known as an inexact science because it relies heavily on variables and subjective judgments.
   A. is what  
   B. it  
   C. which  
   D. that it

10. In flush financial times, ________ on Wall Street may employ as many as 800 stock brokers and managers.
    A. a brokerage typical stock  
    B. typically stock, a brokerage  
    C. a stock typical brokerage  
    D. a typical stock brokerage

11. What have you ____________ to find out?
    A. been able  
    B. able  
    C. were able  
    D. had been

12. You can speak ____________. I won’t tell anyone what you say.
    A. free  
    B. freely  
    C. with freedom  
    D. none of these
13. The strike has continued -------------- two weeks.
   A. for  
   B. since
   C. before
   D. from

14. This is the woman --------------- husband was killed by the dacoits.
   A. whose
   B. of whom
   C. who
   D. of whose

15. She is a selfish woman, but still I ------------ her.
   A. can't help liking
   B. can't help like
   C. can't help but liking
   D. help can't liking

16. It ------------ to my notice that you have been very unpunctual of late.
   A. brought
   B. has brought
   C. has been brought
   D. brings

17. The more he reads the less he ---------------------
   A. understand
   B. understands
   C. will understand
   D. would understand

18. Arranged marriages are unusual in the West. In the Middle East, ---------------------, they are very common.
   A. but
   B. on the other hand
   C. similarly
   D. in spite of this

Q.III: From the underlined words or phrases, draw a circle around the one that is not correct. Choose 15 only. [15 mrks]

1. Because computers are capable of storing, erasing and retrieve data easily, their use is becoming more and more widespread.
2. Critics say that Windows XP is not so efficient as the previous versions.
3. E-mail can rich to any point on the globe.
4. Having weekly family talks can be an important means of exploring sensitive family issues, redefining sibling relationships, and to foster new familial bonds.
5. Evaluation potential Supreme Court justices is one of the most important prerogatives of the House and Senate Judiciary Committees.
6. The dependence of killer whale offspring in their mothers can be seen by the fact that they remain together for life.
7. Computer email is replacing the postal service as the reliablest mode of document transfer.
8. The canine collie family is often separate into several branches including border collies and Australian collies.
9. Malaria, once thought to be completely eradicated, remained today a source of sickness through the developing world.
10. When the Portuguese landed on St. Helena in the beginning of a fifteenth century, they took with them many goats.
11. Bell's palsy is a paralytic condition that usually occurs in one side of the face but not another.
12. A group of compound with the empirical formula of CnH2n+2, paraffins vary from colorless gases to water-white liquids.
13. Such healthy is oat bran that nutritionists recommend one serving a day is sufficient to lower cholesterol.
14. The soundness in general of the bluebirds' instincts are vindicated by the fact that various natural catastrophes do not permanently diminish the bird population.
15. Bill Clinton, that won the 1992 presidential election, was formerly governor of the state of Arkansas.
16. Berbers of the Western Sahara they are distinguishable by their unique language and customs.
17. Patients suffering from Alzheimer disease often do not know who are they.
18. Alike her father, Elizabeth I displayed an understanding of what the people wanted and how to give it to them.

Q. IV: Translate the following: [15 mrks]

Distant Galaxies

The development of the radio telescope has led to two of the most important discoveries in modern astronomy: the identification of the most distant galaxies and the smallest stars ever seen. Before these discoveries were made, new large telescopes had to be built. The most distant stars were called quasars. They were discovered in 1963 when astronomers noticed strong radio signals coming from small points in the sky. When the radio astronomer Maarten Schmidt from Mount Palomar Observatory looked at these points, he saw faint galaxies that could be seen only because they were shining brightly. These galaxies, or quasars, were the most powerful objects ever discovered, and are the most distant objects ever seen. Some are over 13,000 million light years away. They get their power from a huge black hole at their center.

A black hole is a region of space were the pull of gravity is so strong that even light cannot escape. When gas and dust fall into the black hole at the center of a quasar, they produce large amounts of light and heat. Although black holes are very small, they are extremely heavy. A black hole less than a centimeter across can weigh the same amount as the Earth. The black holes in the center of quasars may weigh up to 100 million times as much as our sun.

GOOD LUCK

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