Part 1. Sentence Completion: There are 15 incomplete sentences in this part. You are to choose the word or phrase that best completes the sentence. (2% each)

1. The twins have totally different personalities. Jenny is very quite and hates to be _______, whereas Agnes is very lively and loves to be the center of attention.
   a. across the board.
   b. on the ball
   c. in the spotlight
   d. under the weather

2. The value of the ONREN’s shares nose-dived _______ last week, after allegations that some company executives had stolen large sums of money.
   a. dramatically
   b. actually
   c. particularly
   d. subsequently

3. Freeman has given the job offer in Shanghai a great deal of thought and has decided to accept it.
his family agrees to move there.

4. By using the Health Insurance Card, patients only have to pay a ______ registration fee when they visit a doctor.
   a. ridiculous
   b. nominal
   c. terrible
   d. devastating

5. Mark is brilliant student. He ______ to pass his final exams with flying colors next semester.
   a. will have expected
   b. is expected
   c. will have been expecting
   d. has been expecting

   a. lived
   b. who living
   c. being living
   d. who lived

7. The professor said ______________
   a. as a once native language that was spoken Latin.
   b. once that Latin as a language was spoken native.
   c. that Latin was once spoken as a native language.
   d. as a native once spoken language that Latin was.

8. Every year, many innocent people are killed or injured by drunk drivers. Obviously, the penalties ______ under the influence of alcohol should be much more severe.
   a. to drive
   b. being driving
   c. for driving
   d. being driven

9. Although their marriage was on the rocks, the Jacksons stayed together ______ their children.
   a. for the sake of
10. It took several days to ______ all the problems caused by the computer malfunction at the bank.
   a. take apart
   b. iron out
   c. bring forward
   d. turn over

11. Soldiers in the French Foreign Legion would rather die than surrender to an enemy. Their motto is: “Death ______ Dishonor.”
   a. beyond
   b. in
   c. before
   d. at

12. Politicians often make unrealistic promises during an election campaign, but then ______ their word once they are elected.
   a. go along with
   b. walk out on
   c. come down with
   d. go back on

13. The research team is working around the clock because the project ______ completed by the end of the year.
   a. would have been
   b. may have
   c. must be
   d. could be

14. Audrey is studying to become a doctor. She believes that she has a _______ to help sick people.
   a. handicap
   b. disability
   c. vocation
   d. resentment

15. It’s essential to enjoy quality time with one’s family and friends, but some people spend _____ time working that they neglect this important fact.
   a. too much
Part II. Cloze: There are three passages in this part of test. Each passage contains several missing words or phrases. You are to choose the best answer for each blank. (2% each)

Questions 16-23

Life expectancy for the U.S. population reached a record high of 76.9 years in 2000 as the death rate for several leading causes of death declined, according to ____ (16) ____ from a report issued by the U.S. government in 2001.

The report shows that, taking account of the fact that the population as a whole ____ (17) __ aging, death rates continued to fall for heart disease and cancer, the two leading causes of death in the U.S. Mortality from heart disease has declined ____ (18) ____ since 1950, ____ (19) ____ cancer mortality has been on the decline since 1990.

The report said that Americans are on ____ (20) ____ living longer than ever before. Much of this is ____ (21) ____ the progress that has been made in fighting the most deadly diseases. But Americans ____ (22) ____ even longer if they ate right, exercised regularly, and took other simple ____ (23) ____ to promote good health and prevent serious disease.

16. a. speculations  
b. formulas  
c. figures  
d. subscriptions
17. a. has  
b. have  
c. are  
d. is
18. a. steadily  
b. roughly  
c. recklessly  
d. thoroughly
19. a. purpose  
b. average  
c. scale  
d. duty
20. a. purpose  
b. average  
c. scale  
d. duty
21. a. due to  
b. because  
c. on account  
d. owing
22. a. can live  
b. could have lived  
c. could live  
d. will live
How old is the universe? How was it created? How and when will it end? These are but a few of the many questions (24) have challenged astronomers since the dawn of science.

The modern study of the origin and evolution of the universe is called cosmology. Astronomers have (25) themselves three major tasks (26) the field of cosmology: to understand how galaxies evolved from the earliest times to the present; to increase (27) understanding of cosmic distances; and to test fundamental theories of the expanding universe.

There are several scientific theories about the origin of the universe, the dominant one (28) the Big Bang Theory, all the matter and energy in the universe was released from a (29) explosion billions of years ago.

If this is true, astronomers wonder, will the universe’s present expansion ever stop, reverse itself, and lead to an “anti-Big Bang”, where all matter comes together into a massive implosion, or “Big Crunch”? If this does happen, we can be sure of only one thing: none of us will be around to witness the (30).

24. a. which
b. that
c. where
d. who

25. a. held on
b. broken through
c. set for
d. given in

26. a. for
b. on
c. with
d. in

27. a. their
b. his
c. its

28. a. being
b. is
c. to be
d. has

29. a. enormous
b. gigantic
c. comprehensive
d. transient

30. a. conflict
b. revolution
c. event
d. venture
As modern life has become more urban and sedentary, there has been a parallel growth in fitness clubs. But while many stress by lifting weights or running on the treadmill, find this terribly dull. For them, the only real sports the name are adventure sports.

Skydiving and bungee jumping are two of many adventure sports where you can risk your life for the sake of fun. For their enthusiasts, the sheer thrill of jumping out of an airplane or plunging off a bridge with a long elastic band tied to one foot is more than adequate compensation for the risk.

But should you ever become involved in such sports, don’t forget this important rule: safety first. You must always make sure the equipment is in good condition; that the people running the show are competent; and that they’re as concerned about your safety as you are.

31. a. consume  b. disclose  c. subside  d. release
32. a. other  b. the others  c. others  d. the other
33. a worthy of  b. superior to  c. comparable to  d. adequate to
34. a. just so  b. but  c. only too  d. also
35. a. sake  b. appreciation  c. recognition  d. honor
36. a. ties  b. tying  c. that ties  d. tied
37. a. recreation  b. equipment  c. ornament  d. infrastructure
38. a. competent  b. temperature  c. vicious  d. patriotic
El Niño – Spanish for “the child” – is a disruption in the normal interaction between the ocean and the atmosphere in the tropical Pacific. In the years that El Niño has occurred there have been severe impacts on global weather patterns, causing loss of life and massive property damage.

When the weather pattern is normal and El Niño is not present, the dominant winds blow from east to west across the southern Pacific. This pushes the top layer of ocean water towards the west, causing cold water from the deep ocean off the western coast of South America to rise to the surface. This cold water is nutrient-rich, supporting major fisheries. During El Niño, the dominant winds are much weaker, and the cold water does not rise from the deep ocean. This results in increased rainfall across the southern section of the U.S. and also in Peru, which often causes destructive flooding in these regions, as well as drought in the West Pacific. This has been known to cause devastating fires in Australia.

Hence, scientists use every possible method on hand to try and predict El Niño before it happens. But due to the complexity of global weather patterns, this is easier said than done.

39. Which of the following is the best title for the passage?
   a. Predicting El Niño: Can Science Find the Answer?
   b. Problem Child: El Niño Destroys on Both Sides of the Pacific
   c. The Link Between the Ocean, Atmosphere, and Weather Patterns

40. Based on this passage, which of the following is NOT true?
   a. It is very challenging for scientists to predict the weather.
   b. In El Niño years, the winds blowing from east to west are weaker.
   c. The surface water on the west coast of South America is always cold.
   d. The direction of the wind can control the movement of water in the ocean.

41. Which of the following is implied in paragraph 2?
   b. During El Niño, all Pacific winds are quite weak.
   c. The wind makes the ocean water become cold.
   d. El Niño results in increased rainfall across the entire U.S.
42. Which of the following statements is NOT true?
b. German travel to Bali has increased steadily since 1997.
c. There are sizable annual changes in travel patterns to Bali by citizens of each of the three countries.
d. The amount of Germans and Americans traveling to Bali has become more similar.

43. Which year saw the least total deviation from the average travel volume of all three nations' tourists?
a. 1997
b. 1998
c. 1999
d. 2000

Questions 44-47

Mammoth Cave, in Kentucky, U.S.A., is the largest cave system in the world. The caves have become a major tourist attraction, as well as a center for scientific research. They were formed by acidic water carving out strange underground chambers over millions of years.

About 350 million years ago a sea covered the southeast portion of the American continent, including Kentucky. Many shell animals lived here. When the shell animals died, their shells gathered on the floor of the sea and underwent a transformation. The combined weight of these increasing layers helped to squeeze out the water. The remaining sediments became cemented together to form solid rock, called limestone.

When rainwater combines with carbon dioxide gas from the atmosphere or soil, it creates a
mild carbonic acid that runs down through joints in limestone rock and dissolves calcium carbonate, one of limestone's main ingredients.

Over time, this kind of natural erosion produced the massive series of caverns and tunnels known as Mammoth Cave.

44. What eroded Mammoth Cave?
   a. carbon dioxide gas
   b. squeezed-out water
   c. calcium carbonate
   d. carbonic acid

45. Which of the following statements is NOT true?
   a. Mammoth Cave is immense and fascinating.
   b. Limestone is composed entirely of calcium carbonate.
   c. Kentucky was once deep underwater.
   d. Carbon dioxide is present in soil.

46. According to this article, how is limestone formed?
   a. by natural erosion
   b. by the combination of water and carbon dioxide
   c. by the gathering of active shell animals
   d. by the transformation of animal shells

47. Caves are useful for which of the following reasons?
   a. research and recreation
   b. technical development
   c. carbon dioxide reduction
   d. calcium carbonate elimination

Questions 48-50

Over thirty years ago, the United Nations established the World Heritage Committee (WHC) to protect sites of outstanding natural beauty or cultural significance, which are threatened by industrial development and environmental changes. To date, the committee has listed 730 cities in various countries as worthy of protection. One requirement for listing is that a site must be unique.
like Great Barrier Reef in Australia. There are several sites in Taiwan that would qualify for inclusion in the world heritage list. Taroko Gorge National Park and Mount Ali are both unique and spectacularly beautiful. The latter also has one of only three mountain railways left in the world. In addition, the large prehistoric burial site in Peinan, the Yushan National Park, and the basalt cliffs of Penhu may also qualify.

The WHC list does not include any sites in Taiwan and official, international recognition of these sites is unlikely to happen any time soon because the country is no longer a member of the United Nations. Nevertheless, vital work by Taiwan’s Council of Cultural Affairs (CCA) is well underway to preserve the nation’s cultural and environmental heritage sites so that current and future generations can enjoy them. Education is a key part of the program, as it will encourage people to identify with the sites and hopefully engender a sense of pride. However, there has been some opposition to the Council’s work. For example, a move to designate Orchid Island as a national park was blocked by the islanders. National parks are strictly regulated to protect the delicate ecology and cultural significance of each region. There is now a danger that much of Orchid Island’s unique aboriginal cultural will disappear if the region is subject to haphazard and uncontrolled modernization.

48. What would be a suitable title for this passage?
   a. The World Heritage Committee
   b. Preserving Taiwan’s Heritage Sites
   c. Taiwan’s National Parks Program
   d. The Danger to Orchid Island’s Traditional Culture

49. According to the article, why is it important to preserve Taiwan’s heritage sites?
   a. so they can be developed as tourist attractions
   b. to gain recognition by the WHC
   c. for the benefit of people now and in the future
   d. to boost the nation’s economy

50. The WHC does not list heritage sites in Taiwan because
   a. the sites are not considered unique or culturally significant
   b. the WHC does not recognize national parks as heritage sites.
   c. the CCA prefer to be independent of the WHC.
   d. Taiwan does not belong to the United Nations.
國立高雄大學九十六學年度研究所碩士班招生考試試題

科目：專業論述
系所：都市發展與建築研究所 永續技術組
考試時間：120 分鐘
都市發展與建築研究所 永續規劃組
本科原始成績：100 分

各位考生請注意：

如果你選考永續規劃組，各題的配分如下：

<table>
<thead>
<tr>
<th></th>
<th>題①</th>
<th>題②</th>
<th>題③</th>
<th>題④</th>
<th>題⑤</th>
</tr>
</thead>
<tbody>
<tr>
<td>永續規劃組</td>
<td>30%</td>
<td>30%</td>
<td>20%</td>
<td>10%</td>
<td>10%</td>
</tr>
</tbody>
</table>

如果你選考永續技術組，各題的配分如下：

<table>
<thead>
<tr>
<th></th>
<th>題①</th>
<th>題②</th>
<th>題③</th>
<th>題④</th>
<th>題⑤</th>
</tr>
</thead>
<tbody>
<tr>
<td>永續技術組</td>
<td>10%</td>
<td>10%</td>
<td>20%</td>
<td>30%</td>
<td>30%</td>
</tr>
</tbody>
</table>

請依照你報名時所選考的類組，注意上述的配分原則，來完成試題作答。

一、永續都市發展中有關都市更新的土地使用策略，顯然應該有異於傳統的新主張。德國魯
爾工業區是當前永續都市改造的典範，試說明他們在更新過程中的「土地使用」有哪些
新策略，並嘗試從你自己本身的學門，發表你對這些策略的看法。

二、試論述國立大學校園「公共藝術」之課題回答下列問題？
(1) 大學校園校舍營造是依據何項法令條文設置公共藝術？
(2) 一棟校舍公共建築物總經費與依法編列公共藝術品經費有何比例關係？
(3) 具體舉例說明您認為成功的、有意義的、或有創意特色的一項校園公共藝術品（國
內外均可），論述體驗或感動該項公共藝術品的心得或感想？

三、城市作為經濟與生活的動態空間，運輸需求日漸重要，包含具體交通、物流與網路等，
然而運輸發展與相關問題層出不窮，因而需要透過運輸規劃的流程來將之改善。一般而
言，運輸規劃之步驟為何？

四、在進行居住環境的規劃設計或構築時，特別是永續建築，「房屋生態學」是必須被瞭解與
適當運用的基礎知識。
(1) 請說明房屋生態學的意義及其可能涵蓋的內容。
(2) 做為一位環境或空間專業的規劃設計人員，請舉例說明你將如何運用房屋生態學的
知識或原則來實現永續建築的理想。

五、永續發展的概念，有一大部分的核心議題是針對地球的環境資源的日益短缺與生態系統
的漸漸惡化現象，提出因應之道，在數十年的努力過程當中，漸漸在各領域發展出重要
而具體的行動網領或相關機制。
(1) 試說明京都議定書的核心議題為何？與建築產業之關聯性為何？
(2) 以台灣現代的營建型態而言，所衍生出對環境產生負面效益為何？身為一位有抱負
的建築改造者及實踐者，您可有積極的想法及作為？請作具題論述（若有您熟悉的
國內外建築實例佐證更佳）。

第 1 頁，共 1 頁