

I

Describe the four basic types of chromatography and applications (10%)

2. What is the principle of micellar electrokinetic capillary chromatography? How does it differ from capillary zone electrophoresis? (10%)

II. If you take a look of the marketplace, I am sure you will find that most of the pharmaceutical products have been marketed in oral dosage forms. Recently, a growing number of scientific reports published in the biomedical literature have pointed to a fact, that is: many of the drugs are subjected to an extensive hepatic "first-pass" elimination when taken orally.

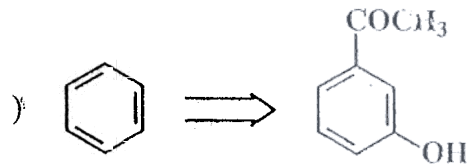
Please answer the following questions:

1. For such a drug, what are the strategies that you would take to overcome this hepatic "first-pass" elimination?
2. What are the innovative types of pharmaceutical products that you suggest a pharmaceutical company to develop, so this hepatic "first-pass" elimination could be substantially overcome?
3. What are the drug delivery technologies that you would like to use, so these innovative types of pharmaceutical products could be successfully developed?

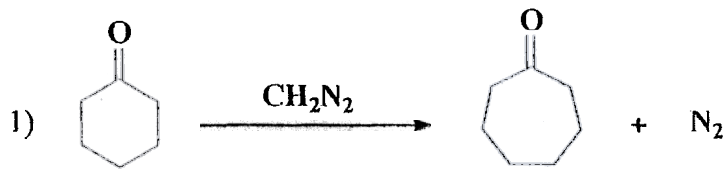
III. 1. Describe the types of literature. (6%)

2. What are the major considerations in therapeutic drug monitoring? (6%)
3. What are the responsibilities of the pharmacist in pharmaceutical care? (8%)

IV. [I] 寫出下列方程式的合成設計: (10%)



[II] 寫出下列方程式可能的反應機構: (10%)



V. Describe the action mechanism and a major clinical use of the following drugs:
(20%)

(A) Finasteride (B) Atorvastatin (C) Fluoxetine (D) Omeprazole (E) Ciprofloxacin

英文

考試時間：90 分鐘

題型：單選題，共 50 題（每題 2 分）

I. 請在(A, B, C, D)中選一個最符合題句的正確答案。

1. Thought he is not a doctor, he can treat most of the _____ disease.
(A) common (B) ordinary (C) usual (D) general
2. It was due to luck _____ judgment _____ the driver succeeded in avoiding an accident.
(A) better than, when (B) other than, when (C) more than, that
(D) rather than, that
3. We are ever so happy, nor so unhappy, _____ we suppose ourselves to be.
(A) as (B) which (C) when (D) what
4. Mrs. Angela Condon urged the messenger to read the telegram to her because she was anxious _____ the safety of her son.
(A) of (B) for (C) at (D) as to
5. I would invite Frances herself to the Party, _____ I don't want her husband to come with her.
(A) but for (B) only that (C) because (D) except
6. Liquids are like solids _____ they have a definite volume.
(A) in that (B) for that (C) with that (D) at that
7. They were more than glad to leave their cars parked and walked _____ a change.
(A) as (B) to (C) for (D) by
8. _____ Everybody knows that the earth is spherical, _____?
(A) doesn't he (B) doesn't she (C) don't they (D) doesn't it
9. _____ If this university _____ such a good reputation, I would not have come here.
(A) didn't have (B) hadn't had (C) doesn't have (D) hasn't had
10. _____ The beauty of Venice, which fascinate all the visitors, _____ the style of its ancient buildings.
(A) consists in (B) rests on (C) results in (D) depends on
11. The two scholars worked at the task of writing a preface to the new dictionary for three hours _____ last night.
(A) at length (B) in full (C) on end (D) in time
12. _____ If there is no clinic handy or you cannot afford special training, most experts agree you can improve your reading ability yourself _____ you have no eye trouble.
(A) proposed (B) supposed (C) provided (D) imagined
13. _____ American will never again have as a nation the spirit of adventure _____ before the West was settled.
(A) as it does (B) as it would (C) as it was (D) as it did

14. Arriving anywhere with these possessions, he might just as easily _____ for a month or a year as a single day.
 (A) put up (B) stay up (C) speed up (D) make up
15. He _____ in court that he had seen the prisoner run out of the bank after it had been robbed.
 (A) testified (B) witnessed (C) justified (D) identified
16. A crowded Japanese commuter train _____ yesterday and crashed into an apartment building, _____ at least 70 people.
 (A) departed, killing (B) dehydrated, killed (C) derailed, killing (D) derailed, killed
17. Dan Brown, who is a former journalist and _____ school teacher, was diagnosed with glaucoma in the 1990s.
 (A) retiring (B) retired (C) retire (D) retirement
18. Lien's train arrives in Nanjin at eight o'clock tomorrow. The plane he would like to take from there _____ by then.
 (A) would leave (B) will have left (C) has left (D) had left
19. He had never thought of father's love before, _____ the tie of their blood.
 (A) take for granted (B) taking for granted (C) took for granted (D) had taken for granted
20. Because of the strong sun Mrs. Black's new dining room curtains _____ from dark blue to gray within a year.
 (A) paled (B) grew (C) fainted (D) faded

II. 改錯：請在(A, B, C, D)中選一個不符合正確語法的錯誤答案。

21. However, since no ammonia fumes are detected, this theory does not seem credibly.
 A B C D
22. The stallholder knew how to flatter his customers and display his wares good, but he was notorious for his cheating.
 A B C D
23. Thanks to the various international exchange programs, continentalism between universities has almost been disappeared.
 A B C D
24. Neither France nor the United States have been able to discover a mutually satisfactory plan for gradual disarmament.
 A B C D

25. Providence, Rhode Island, is a busy manufacturing city and seaport, as well
 A B C
the state capital.
 D
26. We will not be effected by John's decision, but he will not become aware of
 A B C
 the fact for several weeks.
 D
27. Never before I have seen anyone who has the skill John has when he repairs
 A B C D
 engines.
28. Known for his technical virtuosity and tasteful interpretations of pieces such
 A B
as Bach's violin sonatas, Milstein is also a performer of great warmth and
 C
intense.
 D
29. The subcommittee is investing six major grain exporters, their hold over
 A
 United States grain shipments abroad, and the way in which they can
 B C
 influence sensitive price information, both internationally and domestic.
 D
30. Seniors in high school, now have options that include attending a university,
 A
attending a two-year community college, or to work a few years before
 B C D
 schooling again.

IV. 閱讀測驗：請在(A, B, C, D)中選一個最符合題句的正確答案。

Passage One

Questions 31 to 35 are based on the following passage:

It is, everyone agrees, a huge task that the child performs when he learns to speak, and the fact that he does so in so short a period of time challenges explanation.

Language learning begins with listening. Individual children vary greatly in the amount of listening they do before they start speaking, and late starters are often long listeners. Most children will "obey" spoken instructions some time before they can speak, though the word obey is hardly accurate as a description of the eager and delighted cooperation usually shown by the child. Before they can speak, many children will ask questions by gesture and by making questioning noises.

Any attempt to trace the development from the noises babies make to their first spoken words leads to considerable difficulties. It is agreed that they enjoy making noises, and that during the first few months one or two noises sort themselves out as particularly indicative of delight, distress, sociability, and so on. But since these cannot be said to show the baby's intention to communicate, they can hardly be regarded as early forms of language. It is agreed, too, that from about three months they play with sounds for enjoyment, and that by six months they are able to add new sounds to their *repertoire*. This self-imitation leads on to deliberate imitation of sounds made or words spoken to them by other people. The problem then arises as to the point at which one can say that where imitations can be considered as speech.

31. ____ By "... challenges explanation"(Line 2, para. 1) the author means that
- A) no explanation is necessary for such an obvious phenomenon
 - B) no explanation has been made up to now
 - C) it's no easy job to provide an adequate explanation
 - D) it's high time that an explanation was provided
32. ____ The third paragraph is mainly about ____.
- A) the development of babies' early forms of language
 - B) the difficulties of babies in learning to speak
 - C) babies' strong desire to communicate
 - D) babies' intention to communicate
33. ____ The author's purpose in writing the second paragraph is to show that children
- A) usually obey without asking questions
 - B) are passive in the process of learning to speak
 - C) are born cooperative
 - D) learn to speak by listening
34. ____ From the passage we learn that ____.
- A) early starters can learn to speak within only six months
 - B) children show a strong desire to communicate by making noises
 - C) imitation plays an important role in learning to speak
 - D) children have various difficulties in learning to speak
35. ____ The best title for this passage would be ____.
- A) How Babies Learn to Speak
 - B) Early Forms of Language
 - C) A Huge Task for Children
 - D) Noise Making and Language Learning

Passage Two

Questions 36 to 40 are based on the following passage:

A good modern newspaper is an extraordinary piece of reading. It is remarkable first for what

it contains: the range of news from local crime to international politics, from sport to business to fashion to science, and the range of comment and special features as well, from editorial page to feature articles and interviews to criticism of books, art, theatre and music. A newspaper is even more remarkable for the way one reads it: never completely, never straight through, but always by jumping from here to there, in and out glancing at one piece, reading another article all the way through, reading just a few paragraphs of the next. A good modern newspaper offers a variety to attract many different readers, but far more than any one reader is interested in. What brings this variety together in one place is its topicality, its immediate relation to what is happening in your world and your locality now. But immediacy and the speed of production that goes with it mean also that much of what appears in a newspaper has no more than transient value. For all these reasons, no two people really read the same paper: what each person does is to put together out of the pages of that day's paper, his own selection and sequence, his own newspaper. For all these reasons, reading newspapers efficiently, which means getting what you want from them without missing things you need but without wasting time, demands skill and self-awareness as you modify and apply the techniques of reading.

36. _____. A modern newspaper is remarkable for all the following except its _____.
- A) wide coverage
 - B) uniform style
 - C) speed in reporting news
 - D) popularity
37. _____. According to the passage, the reason why no two people really read the "same" newspaper is that _____.
- A) people scan for the news they are interested in
 - B) different people prefer different newspapers
 - C) people are rarely interested in the same kind of news
 - D) people have different views about what a good newspaper is
38. _____. It can be concluded from the passage that newspaper readers _____.
- A) apply reading techniques skillfully
 - B) jump from one newspaper to another
 - C) appreciate the variety of a newspaper
 - D) usually read a newspaper selectively
39. _____. A good newspaper offers "a variety" to readers because _____.
- A) it tries to serve different readers
 - B) it has to cover things that happen in a certain locality
 - C) readers are difficult to please
 - D) readers like to read different newspapers
40. _____. The best title for this passage would be "_____".
- A) The Importance of Newspaper Topicality
 - B) The Characteristics of a Good Newspaper
 - C) The Variety of a Good Newspaper

Passage Three

Questions 41 to 45 are based on the following passage:

"I smoke for health," I proclaimed in a newspaper article published in 1979. Since I am a doctor, this advice attracted amused attention. I reasoned that smoking made me cough and thus prevented pneumonia; smoking made my heart go faster and eliminated the need for special exercise; smoking restrained my appetite and kept me trim. And then, at 51, I had a heart attack.

I knew the risk factors for early heart attacks include hypertension, diabetes, a family history of heart disease, high blood-cholesterol levels and smoking. The first four were in my favor, but I chose to smoke.

Strange how the evidence that linked smoking to heart disease appeared unclear to me, and how the same data now appear overwhelmingly convincing. Why stop now? Smokers who stop after their first heart attack have an 80-percent chance of living ten more years—if they don't, a 60-percent chance.

As a smoker, I always resented the fact that we smokers received only scorn from nonsmokers. How could nonsmokers know that smoking was bad for the health if there were no smokers to prove it? Being a member of the experimental group, rather than the control group, deserves a certain measure of social appreciation. I've done my time. I'm now ready to be a control. I no longer smoke for my health. My health can't stand the help.

Will I miss the late-night trips to find a store that's still open and selling cigarettes? Will I miss searching through *ashtray* to find the longest butt that is still smokeable? Only time will tell. Not smoking may give me the time to find out.

Was it easy to stop? Sure. Here is all you have to do. First, experience a severe crushing pain under your breastbone as you finish a cigarette. Next, have yourself admitted to a coronary-care unit and be stripped of your clothing and belongings. Finally remain in the unit at absolute bed rest for four days while smoking is forbidden. This broke my habit. See if it works for you.

41. The writer used to believe all the following except _____.
- A) cough does good to health
 - B) smoking benefits health
 - C) smoking helps prevent from getting too fat
 - D) smoking can take the place of physical exercise
42. Which of the following has the similar meaning to the sentence "The first four were in my favor"?
- A) The four factors supported me.
 - B) I wouldn't be down with the four diseases.
 - C) I was not accompanied with the four factors.
 - D) The first four factors did me a favor.
43. Which of the following is NOT true according to the passage?

- A) The society should take more care of smokers.
B) Non-smokers should be grateful to smokers.
C) The writer believes he will live longer provided he quits smoking.
D) The writer used to buy cigarettes late at night.
44. ____ The word "help" at the end of the fourth paragraph refers to ____
A) social appreciation
B) smoking cigarettes
C) control group
D) experimental group
45. Which of the following would be the best title for the passage?
A) Why I Developed Heart Disease
B) My Fault
C) Why I Quit Smoking
D) I've Done My Time

Passage Four

Questions 45 to 50 are based on the following passage:

European people are all tall and white. Only those who live in the northeast where it is very cold are short, and dwarfish. They have big noses and deep eyes. But their eyes not of the same color, with brown, green, and black being most frequent. They have heavy beards that go up to their temples, or are wound around their jaws. Some of their beards are straight like those of the Chinese. Some are crooked and twisted like curly hairs. Some shave them all off. Some leave them all on. Some cut their beards but leave their mustaches. Some cut off their mustaches and leave their beards. They do what they wish. Whether old or young, all have beards. They let their hair grow to two or three inches. But if it gets longer they cut it. The women leave on all of their hair. The women dress their hair somewhat like Chinese women, but gather it together in a net. The men wear flat-topped, tubelike, narrow-brimmed hats of different heights ranging from four inches to over one foot. They are made of felt or silk. When they meet people, they lift their hats as a sign of respect. Their clothes are narrow and their sleeves are tight. The length only goes down to their bellies. Their trousers are bound tightly around their waists. But their outer garments are loose and long, and reach as far down as their knees. They wear collars in front and back. Their inner garments are of cotton, but their outer garments are of wool. They often wear boots which are made of leather.

Women's clothes are also tight and their sleeves stick to their bodies. They wear skirt which are long and brush the ground. This is how they generally dress. For their ceremonial hats, ceremonial clothes, their military helmets and garments, they have different practices.

For their eating and drinking utensils they use gold, silver, and ceramics. When they eat they use knife and fork, and they do not use chopsticks. They eat mainly bread. They mostly roast or broil fowl and game. They usually season it with preserves or olive oil. They drink spirits and soda water, as well as coffee in which they mix sugar. Its fragrance enlivens teeth and jaws, and makes the spirit fresh and clear.