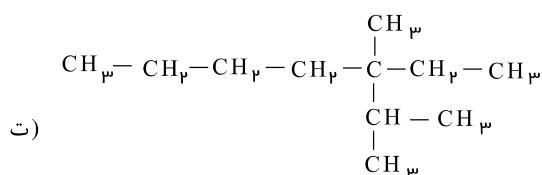
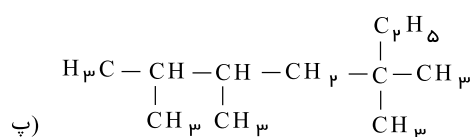
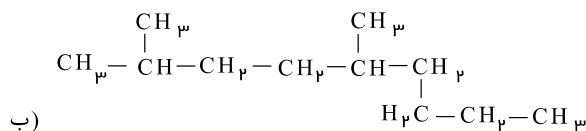
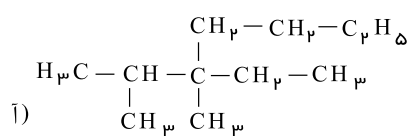




۱ - کدام دو فرمول ساختاری به یک آلکان مربوطاند؟



۴) ب، پ

۳) پ، ت

۲) آ، ت

۱) آ، ب

۲ - شمار اتم‌ها در ۲٫۹ گرم از یک آلکان راست زنجیر برابر $۱۰^{۲۳} \times ۴٫۲۱۴$ است. این آلکان کدام است؟

$(C = ۱۲, H = ۱ : g \cdot mol^{-1})$

۴) پنتان

۳) بوتان

۲) پروپان

۱) اتان

۳ - مخلوطی به جرم ۳۳ گرم از اتان و پنتان را در مقدار کافی اکسیژن می‌سوزانیم تا کربن دی‌اکسید و بخار آب حاصل شود. اگر تعداد مول‌های بخار آب تولید شده، $\frac{۴}{۳}$ تعداد مول‌های کربن دی‌اکسید تولید شده باشد، چند گرم از مخلوط اولیه را پنتان تشکیل می‌دهد؟

$(C = ۱۲, O = ۱۶, H = ۱ : g \cdot mol^{-1})$

۴) ۱۵

۳) ۱۸

۲) ۲۱

۱) ۱۲

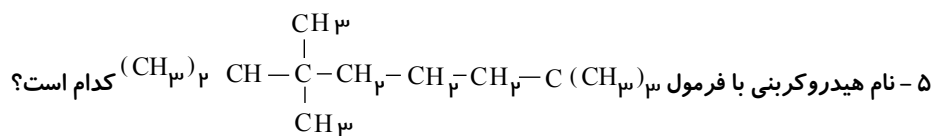
۴ - از سوختن کامل ۶٫۳ گرم از چند نوع آلکان متفاوت، ۹٫۴۵ گرم بخار آب تولید می‌شود؟ $(C = ۱۲, O = ۱۶, H = ۱ : g \cdot mol^{-1})$

۴) ۵

۳) ۴

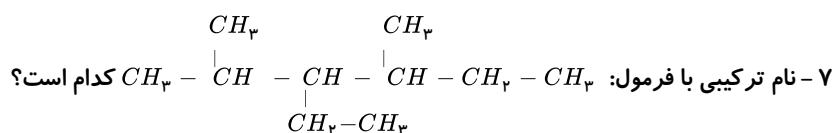
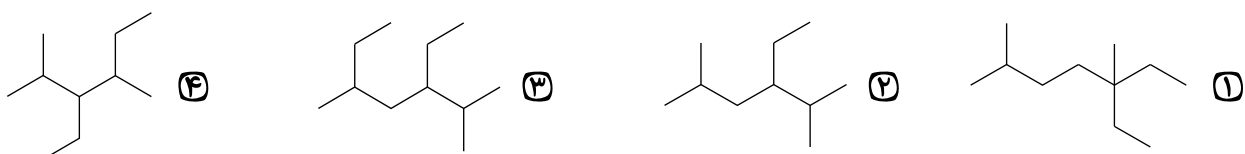
۲) ۳

۱) ۱



- ① ۲، ۶، ۶، ۷ - پنتامتیل اوکتان
 ② ۲، ۶، ۶، ۷ - پنتامتیل اوکتان
 ③ ۲، ۶، ۶، ۷ - تری متیل هپتان
 ④ ۶، ۶، ۲ - پروپیل - ۶، ۶، ۲ - تری متیل هپتان

۶- فرمول پیوند - خط آلکان زیر کدام است؟

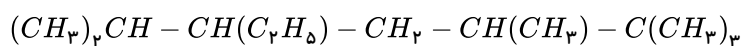


- ① ۳-ایزوپروپیل - ۴-متیل هگزان
 ② ۳-اتیل - ۴، ۲-دی متیل هگزان
 ③ ۴-اتیل - ۵، ۳-دی متیل هگزان
 ④ ۳-متیل - ۴-ایزوپروپیل هگزان

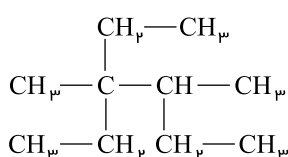
۸- در واکنش سوختن کامل آلکانی در شرایط STP ، $179.2L$ گاز تولید شده است و $416g$ گاز اکسیژن مورد استفاده قرار گرفته است. فرمول شیمیایی هیدروکربن مورد نظر کدام است؟ ($C = 12, O = 16 : g \cdot mol^{-1}$)

- ① C_5H_{12}
 ② C_6H_{14}
 ③ C_7H_{16}
 ④ C_8H_{18}

۹- نام هیدروکربن مقابل به روش آیوپاک کدام است؟



- ① ۳-اتیل - ۲ و ۵ و ۶ و ۶ - تترامتیل هپتان
 ② ۵-اتیل - ۲ و ۲ و ۳ و ۶ - تترامتیل اوکتان
 ③ ۵-اتیل - ۲ و ۲ و ۳ و ۶ - تترا متیل هپتان
 ④ ۳-اتیل - ۲ و ۲ و ۵ و ۶ و ۶ - تترا متیل اوکتان



- ① ۲، ۲، ۳-دی اتیل - ۳-متیل پنتان
 ② ۳-اتیل - ۳، ۴-دی متیل هگزان

۱۰- نام هیدروکربنی با فرمول ساختاری روبه‌رو، کدام است؟

- ① ۲، ۲، ۳-تری اتیل بوتان
 ② ۳، ۵-دی اتیل - ۳-متیل هگزان



پژوهندگان علم

نام آزمون: زبان ۱۱ تجربی تمرین

تاریخ آزمون: ۱۴۰۳/۰۸/۲۲

1 - Read the following sentences. Put (S) for subjects, (O) for objects, (V) for verbs and (Adv) for adverbs.

1. He speaks English fluently.
2. The man interviewed ten people last week.
3. The Internet didn't exist then.
4. We exchanged phone numbers after the class yesterday.
5. The French built the church in the 13th century.
6. The student scanned through the web pages.
7. I picked up the wrong bag by mistake.
8. My father usually drinks plenty of water.

2 - Babak Saberian is a translator who works for IRIB1. Today, he is hosting Meysam in his office.

Read their conversation and fill in the blanks with the phrases from the box below. One phrase is extra.

a language institute – as early as possible – by means of – inviting me – a university student
– three languages – to be honest – besides my mother tongue – an important point

Meysam: Thank you Mr. Saberian for1..... to your office.

Mr. Saberian: You're welcome!

Meysam: I heard you know2..... Is that right?

Mr. Saberian: Well, actually four languages.

Meysam: Four! Really?! What languages do you know?

Mr. Saberian:3..... , Persian, I know English, French and Russian well.

Meysam: Interesting! And when did you learn them?

Mr. Saberian: I began learning English at school when I was thirteen. Then I began learning French in4..... when I was fifteen. And I learned Russian when I was5..... in Moscow.

Meysam: Can you use all of them fluently?

Mr. Saberian: I know all of them well, but I use English more.

Meysam: OK. Do you think language learning should start6..... ?

Mr. Saberian: My experience says interest and hard work are really more important than age.

Meysam: Hmm... that's7..... May I know what your favorite language is? English, French, or Russian?

Mr. Saberian:8..... , I enjoy using them all, but my favorite language is absolutely my mother tongue!



3 - Tell whether the underlined noun is countable or uncountable.

- | | | |
|---|---------------------------------|-----------------------------------|
| 1. He used the computer to find more <u>information</u> . | ☐ countable | ☐ uncountable |
| 2. There was too much <u>furniture</u> in the room. | ☐ countable | ☐ uncountable |
| 3. The radio was playing a beautiful <u>song</u> . | ☐ countable | ☐ uncountable |
| 4. The teacher gave the students some <u>advice</u> . | ☐ countable | ☐ uncountable |
| 5. Steven had to hang a <u>picture</u> on the wall. | ☐ countable | ☐ uncountable |
| 6. Sarah played the <u>music</u> for the class. | ☐ countable | ☐ uncountable |
| 7. The <u>rice</u> was steaming on a plate. | ☐ countable | ☐ uncountable |
| 8. They did some <u>research</u> on the Internet. | ☐ countable | ☐ uncountable |

4 - Fill in the blanks using your own knowledge.

- The only means of communication between and hearing people was sign language.
- He speaks English fluently but his tongue is Chinese.
- An language is a language that has very few speakers.
- Communication is a process of exchange - a giving and of information.
- Spoken English is often less formal than English.
- An open area where people can leave their cars is called a parking

5 - Choose much or many:

- Not much / many people understand his ideas.
- How much / many does it cost to fly from Paris to London?
- How much/ many brothers and sisters do you have?
- How much / many water do we need to drink every day?
- How much / many mistakes did you make on this little test?
- There are too many / much programs on this computer.

6 - Unscramble the following sentences.

- bread / much / your mother / does / how / need?
- like / I / to drink / of / water / glass / a.
- cars / are / lots / there / in / street / the / of ?
- has / she / two / thirty / classmates / her class / in.
- my friends / saw / of / lot / a / chicken / the / in / yard.



7 - Match the beginnings and ends of the sentences.

1. Let's get her a bar of
2. Check in the fridge. I don't think we've got any
3. Can you get me an ?
4. The children need two packets of
5. There isn't any
6. Do you have a bag of ?

- | |
|--------------|
| a. milk |
| b. biscuits |
| c. chocolate |
| d. rice |
| e. water |
| f. apple |
| g. sheep |

8 - There are some mistakes in each sentence. Find and correct them.

1. The terrible news we heard today were absolutely false.
.....
2. I cooked three fishes for dinner.
.....
3. Rosa's hairs are long and her clothes are very stylish.
.....
4. She gave me some wrong informations. Her advices were incorrect.
.....
5. Henry drank two warm cup of coffees.
.....
6. Physics are a difficult class. I don't seem to understand them.
.....
7. How many furniture are there in your apartment?
.....
8. I bought two cheeses and 3 milks.
.....

9 - Unscramble the following sentences.

1. divided - their - the - children - skills - groups - according - teacher - the - into - to.
2. understand - package - explanations - didn't - drug - I - the - on - the.
3. is - alive - impossible - to - it - stay - desert - in - water - the - without.
4. have - their - children - Japan - a lot of respect - teachers - for - in.
5. a - access - few - this - people - have - to - information - only.



10 - Choose the words in the box to complete the passage. You'll need one word twice.

a little	a lot of	a few	few	fewer	many	much
----------	----------	-------	-----	-------	------	------

Two years ago, I moved to a new neighborhood. There seem to be very1..... people in this area who are without telephones, so I didn't expect to get a new phone quickly. I asked for one as soon as I moved into my new house. 'We are supplying2..... new phones in your area', an engineer told me. '3..... people want new phones at the moment and the company has employed4..... engineers since last year so as to save money. A new phone won't cost you5..... money, but it will take6..... time. We can't do anything for you before December. 'You need7..... patience if you're waiting for a new phone and you need8..... friends whose phones you can use as well. Fortunately, I had both. December came and went, but there was no sign of a phone. I went to the company's local office to protest. 'They told me I'd have a phone by December,' I protested. 'Which year?' the assistant asked.

protest: اعتراض کردن