



سایت ویژه ریاضیات www.riazisara.ir

درسنامه ها و جزوه های ریاضی

سوالات و پاسخنامه تشریحی کنکور

نمونه سوالات امتحانات ریاضی

نرم افزارهای ریاضیات

و...

کانال سایت ریاضی سرا در تلگرام:

<https://t.me/riazisara>



(@riazisara)

کد کنترل

520

C



520C

دانلود سوالات و پاسخنامه تشریحی کنکور از سایت ریاضی سرا

آزمون سراسری ورودی دانشگاه‌های کشور

دفترچه شماره ۲
عصر جمعه
۱۳۹۷/۴/۸



جمهوری اسلامی ایران
وزارت علوم، تحقیقات و فناوری
سازمان سنجش آموزش کشور

«اگر دانشگاه اصلاح شود مملکت اصلاح می‌شود.»
امام خمینی (ره)

آزمون اختصاصی گروه آزمایشی زبان

مدت پاسخ‌گویی: ۱۰۵ دقیقه

تعداد سؤال: ۷۰

عنوان مواد امتحانی آزمون اختصاصی گروه آزمایشی زبان، تعداد، شماره سؤالات و مدت پاسخ‌گویی

ردیف	مواد امتحانی	تعداد سؤال	از شماره	تا شماره	مدت پاسخ‌گویی
۱	زبان انگلیسی (اختصاصی)	۷۰	۱۰۱	۱۷۰	۱۰۵ دقیقه

حق چاپ، تکثیر و انتشار سؤالات به هر روش (الکترونیکی و ...) پس از برگزاری آزمون، برای تمامی اشخاص حقیقی و حقوقی تنها با مجوز این سازمان مجاز می‌باشد و با متخلفین برابر مقررات رفتار می‌شود.

سال ۱۳۹۷

* داوطلب گرامی، عدم درج مشخصات و امضاء در مندرجات جدول ذیل، به منزله عدم حضور شما در جلسه آزمون است.

اینجانب..... با شماره داوطلبی..... در جلسه این آزمون شرکت می‌نمایم.

امضاء:

Part A: Grammar

Directions: Questions 101-110 are incomplete sentences. Beneath each sentence you will see four words or phrases marked (1), (2), (3), and (4). Choose the one word or phrase that best completes the sentence. Then mark the correct choice on your answer sheet.

- 101- Finding a solution to the long-lasting problems of unemployment ----- an easy task to do.
1) seem not to be 2) does not seem to be
3) not seeming to be 4) that is not seemingly
- 102- To hide his insecurity, Barton often acted like a comedian ----- he could make people laugh.
1) except 2) so that 3) although 4) in order to
- 103- Looking at the magnificent crystal blue water of the sea, Eileen thought she had never seen -----.
1) anything so beautiful 2) so beautiful anything
3) so beautiful anything was 4) anything was so beautiful
- 104- After her sister's death, we blamed him because we thought he ----- something to save her but he simply didn't do a thing and just waited until her sister was swallowed by the pool water.
1) must have done 2) should be doing
3) might be doing 4) could have done
- 105- There was ----- to save the woman. She died as a result of the injuries she received in the crash.
1) little the doctors could do 2) few doctors who did much
3) as far as the doctors did 4) too much done as doctors could
- 106- Some religious leaders have declared inaction on environmental issues to be wrong, because it may now be -----.
1) a sin considered to pollute the earth
2) considered a sin to pollute the earth
3) polluting the earth a sin to be considered
4) for the earth to pollute to be considered a sin
- 107- We are familiar with the fact that the psychologist was interested in neurology and nervous diseases for a long time before he created the method of research and treatment -----.
1) is known to him 2) that he is known as
3) as what he knows 4) for which he is known
- 108- So sad he was when he left the interview room ----- I thought his application had certainly been refused.
1) as 2) that 3) then 4) as if
- 109- Not even a decade ago, physicians treated heart disease by focusing on the organ of the heart, rather than focusing on the person ----- the disease.
1) experiencing 2) experienced 3) experiences 4) to experience
- 110- From why the sky is blue ----- Internet search engines work, we're serving up answers to your burning science and technology questions.
1) and 2) to 3) to how 4) or why do

Part B: Vocabulary

Directions: Questions 111-125 are incomplete sentences. Beneath each sentence you will see four words or phrases marked (1), (2), (3), and (4). Choose the one word or phrase that best completes the sentence. Then mark the correct choice on your answer sheet.

- 111- If you want to feel healthy and fresh, you need to make sure that your body receives the ----- it needs.
1) nutrients 2) features 3) organs 4) processes
- 112- The North Pole rests in the middle of the Arctic Ocean, where the surface of ----- ice rides just a foot or so above the surrounding sea.
1) floating 2) bending 3) releasing 4) contrasting
- 113- Within a few days she had become ----- ill, suffering great pain and discomfort.
1) anxiously 2) seriously 3) immediately 4) primarily
- 114- Stars' lifetimes vary from a few million years to billions of years. It depends on how fast a star uses up its nuclear -----.
1) plate 2) fuel 3) weight 4) involvement
- 115- Charlie preferred to remain unnoticed in the crowd, for his natural shyness led him to avoid -----.
1) comparison 2) confidence 3) expression 4) attention
- 116- The poverty figures were undoubtedly ----- the president; he was, however, determined to solve this problem as quickly as possible.
1) a reference to 2) a forecast for
3) an exploration for 4) an embarrassment to
- 117- Not wanting to ----- the driver, the passengers did not talk to him throughout the long trip.
1) remove 2) prevent 3) distract 4) instruct
- 118- As I notice that those in the conference were getting tired, I decided to omit some of the topics I planned to talk about and deal with those left as ----- as possible.
1) briefly 2) nearly 3) basically 4) necessarily
- 119- According to a new report, some people who live on the street have dangerous mental health -----.
1) issues 2) events 3) amounts 4) functions
- 120- Many people may have ----- that the more difficult an article is, the more work has gone into writing it; but this is not always the case.
1) a result 2) an emotion 3) a possibility 4) an impression
- 121- To be more at peace, one should ----- oneself from the external influence as though they are of no interest at all.
1) detach 2) derive 3) identify 4) overcome
- 122- Creation of the modern oceans required two obvious -----: water and a container in which to hold it.
1) aspects 2) impacts 3) ingredients 4) consequences
- 123- The scientific case for life elsewhere has grown stronger during the past decade and there is now a ----- that we are verging on the discovery of life on other planets.
1) sense 2) matter 3) manner 4) mystery
- 124- Details of what happened to the missing ship are difficult to ----- because of a lack of first-hand evidence.
1) confuse 2) establish 3) restrict 4) forget
- 125- Having so many muscles, it was ----- for the bodybuilder to lift a heavy box over his head.
1) doubtful 2) efficient 3) effortless 4) impractical

Part C: Sentence Structure

Directions: Choose the sentence with the best word order for each of the following series. Then mark the correct choice on your answer sheet.

- 126-
1) To create a future bigger than your past is essentially acting when imagined.
2) Creating a future that is bigger than your past is essentially an act of imagination.
3) A future is greater than your past is created when your imagination is essentially active.
4) By creating a future when it is greater than your past as essentially an act of imagination.

127-

- 1) Adroitly used, repetition is annoying, thus serving an idea by strengthening it.
- 2) Repetition, but adroitly used, can be annoying, and serve to strengthen an idea.
- 3) Although annoying, repetition is adroitly used and served to strengthen an idea.
- 4) Repetition can be annoying, but adroitly used, it can serve to strengthen an idea.

128-

- 1) Both our world and the way we see it has been revolutionized by the discoveries are repeatedly made by scientific geniuses.
- 2) Both our world and the way which we see it the discoveries have repeatedly revolutionized by scientific geniuses.
- 3) The discoveries made by scientific geniuses have repeatedly revolutionized both our world and the way we see it.
- 4) Scientific geniuses made the discoveries and have repeatedly revolutionized both our world and the way we see it.

129-

- 1) I won't patronize this one restaurant because a fried egg was served to by the waitress that was rotten.
- 2) This is one restaurant I won't patronize because the waitress served me a fried egg that was rotten.
- 3) Because the waitress served me by a fried egg was rotten, I won't patronize this one restaurant.
- 4) Rotten was the egg served to me by the waitress of one restaurant where I won't patronize.

130-

- 1) Negotiators, hoping to end the dispute, proposed a compromise that they felt be acceptable to both labor and management.
- 2) That they felt it would be acceptable both labor and management were proposed a compromise for the dispute by negotiators.
- 3) Hoping to end the dispute, negotiators proposed a compromise that they felt would be acceptable to both labor and management.
- 4) Both labor and management hoping to end the dispute were proposed a compromise by negotiators that they felt acceptable.

Part D: Language Functions

Directions: Read the following conversations between two people and choose the answer choice (1), (2), (3), or (4) that best completes the blank in the conversations. Then mark the correct choice on your answer sheet.

A: Good morning.

B: Good morning. Um ... I'm looking for a place to rent near the university.

A: What are you (131) -----? A house, an apartment ... a room?

- 131- 1) in 2) for 3) up to 4) after

A: Did you know Angela had finished all her required courses? She'll be graduating in May.

B: Oh, so she doesn't have to repeat that chemistry course (132) -----.

- 132- 1) as yet 2) after all 3) in no time 4) by the way

A: Hey John Boy, come over and help me paint the house this afternoon.

B: (133) ----- Davey! I've got plans tonight and have no intention of getting dirtied up before then!

- 133- 1) Is it ever 2) You can count on it
3) No on your life 4) It's anybody's guess

A: Let's go and see a movie tonight.

B. Thanks, but I'm feeling a bit (134) ----- —I think I'm getting a cold.

- 134- 1) red-handed 2) under the weather
3) black-and-blue 4) after my own heart

A: You seem nervous. What's up?

B: I'm really (135) ----- . My teacher gave us a pop quiz and I couldn't remember anything. My mind (136) ----- totally blank.

A: Because you didn't get any sleep.

B: That's right. And he read my report while I was taking the quiz. When the quiz was over, he asked to see me.

A: What did he say?

B: He told me to type my report over again because it's (137) ----- . He wants me to hand it in tomorrow.

135- 1) in hot water

2) as pale as death

3) the root of the problem

4) looking for something to get my teeth into

136- 1) flipped

2) turned

3) changed

4) went

137- 1) a screw loose

2) such a mess

3) my cup of tea

4) few and far between

A: I can't even stand up on these things!

B: Relax ... Don't try so hard.

A: You know what ... I must admit that I can't ski! I've never been one to do anything athletic. I'm just gonna throw in the (138) ----- now.

B: Just keep your shirt on! You haven't even tried yet! Don't be (139) -----! Here, take my hand. Good. Now ... First thing you want to do is bend your knees.

A: (140) -----?

B: Yeah ... Now lean back ... All right, good ... Doing great.

138- 1) hamlet

2) gloves

3) medal

4) towel

139- 1) a fat cat

2) all brawn and no brain

3) down at heel

4) such a stick in the mud

140- 1) So what

2) Like this

3) What next

4) Are you joking

Part E: Cloze Test

Directions: Read the following passage and decide which choice (1), (2), (3), or (4) best fits each space. Then mark the correct choice on your answer sheet.

Environmental noise is defined as the noise (141) ----- from sources such as road, rail and air traffic, industries, construction and public works, and (142) ----- . Noise has been (143) ----- high among forms of pollutions, (144) ----- air pollution, radioactive waste pollution, water pollutions, etc. In recent years, noise has received considerable worldwide attention as a result of the many studies (145) ----- noise pollution to various health effects that include auditory (146) ----- non-auditory health effects. It should be noted here that the effect of noise is seldom catastrophic, and is often only transitory. (147) -----, its adverse effects can be cumulative with prolonged or repeated (148) ----- . Excessive noise causes sleep disruption, reduction in performance and the inability to enjoy one's property or (149) ----- time. It impairs the quality of life. In addition, several studies have linked extended exposure to high noise levels (150) ----- cardiovascular diseases, including high blood pressure and irregular heart (151) ----- . It has also been reported that high noise levels have an economic effect, especially on tourism and real estate sectors, (152) ----- that the prices of houses tend to be higher in (153) ----- areas. There is also some evidence that noise can adversely affect general health and well-being in (154) ----- chronic stress. Because of these factors, and the recent public awareness of the adverse effects of noise in (155) -----, many studies and noise monitoring programs have been established in various parts in the world.

141- 1) situated

2) emitted

3) occurred

4) converted

142- 1) the neighborhood

2) is the neighborhood

3) the neighborhood is

4) that from the neighborhood

143- 1) ranked

2) adjusted

3) preserved

4) distributed

صفحه ۶	520-C	انگلیسی (اختصاصی)
144- 1) and includes 3) that includes	2) which include 4) in which is included	
145- 1) they link	2) link with	3) linking 4) linked
146- 1) beside	2) in spite of	3) regardless 4) as well as
147- 1) Since	2) Likewise	3) However 4) Although
148- 1) exposure	2) prevention	3) scenery 4) emphasis
149- 1) tension	2) proper	3) leisure 4) anxious
150- 1) due to	2) of	3) in 4) to
151- 1) beat	2) beating	3) to beat 4) that beats
152- 1) reported 3) they reported	2) which is reported 4) where it has been reported	
153- 1) shopping	2) traffic	3) quiet 4) downtown
154- 1) a manner as 3) a similar manner that	2) the same manner as 4) the same manner is	
155- 1) a few of last decades 3) the few last decades	2) few of the last decades 4) last of the few decades	

Part F: Reading Comprehension

Directions: In this part of the test, you will read three passages. Each passage is followed by some questions. Answer the questions by choosing the best choice (1), (2), (3), or (4). Then mark the correct choice on your answer sheet.

PASSAGE 1:

A robot suit has been developed that could help older people or those with disabilities to walk or lift heavy objects. Dubbed HAL, or hybrid assistive limb, the latest versions of the suit were shown at the World Expo in Aichi, Japan. HAL is the result of 10 years' work by Yoshiyuki Sankai of the University of Tsukuba in Japan, and integrates mechanics, electronics, bionics and robotics in a new field known as cybernics. The most fully developed prototype, HAL 3, is a motor-driven metal 'exoskeleton' that you strap onto your legs to power-assist leg movements. A backpack holds a computer with a wireless network connection, and the batteries are on a belt.

Two control systems interact to help the wearer stand, walk and climb stairs. A 'bio-cybernic' system uses bioelectric sensors attached to the skin on the legs to monitor signals transmitted from the brain to the muscles. It can do this because when someone intends to stand or walk, the nerve signal to the muscles generates a detectable electric current on the skin's surface. These currents are picked up by the sensors and sent to the computer, which translates the nerve signals into signals of its own for controlling electric motors at the hips and knees of the exoskeleton. It takes a fraction of a second for the motors to respond accordingly, and in fact they respond fractionally faster to the original signal from the brain than the wearer's muscles do.

- 156- What is the primary purpose of the passage?
 1) To introduce a novelty
 2) To trace the origin of a new development
 3) To critically assess the efficiency of a device
 4) To find a new function for a newly developed robot
- 157- Which of the following is stated in the passage about HAL 3?
 1) It took over a decade to develop.
 2) It is to be tied to the leg of the user.
 3) It has an electrically powered motor.
 4) It was initially designed to help old people.
- 158- Paragraph 2 is mainly intended to -----.
 1) compare and contrast
 2) list causes of a phenomenon
 3) describe the steps in a process
 4) explain a number of technical terms
- 159- The word "this" in paragraph 2 refers to -----.
 1) attaching to the skin on the legs
 2) helping the wearer stand, walk and climb stairs
 3) using bioelectric sensors attached to the skin on the legs
 4) monitoring signals transmitted from the brain to the muscles

- 160- According to paragraph 2, the electric currents on the skin's surface are -----.
- 1) hardly ever detected
 - 2) sent back to the brain
 - 3) carried over to a computer via some sensors
 - 4) used as they are to control electric motors at the hips and knees of the exoskeleton

PASSAGE 2:

The Peter Principle is a special case of a ubiquitous observation: Anything that works will be used in progressively more challenging applications until it fails. This is the "generalized Peter Principle". Peter noted that there is a strong temptation for people to use what has worked before, even when this might not be appropriate for the current situation.

In an organizational structure, assessing an employee's potential for a promotion is often based on their performance in the current job. This eventually results in their being promoted to their highest level of competence and potentially then to a role in which they are not competent, referred to as their "level of incompetence". The employee has no chance of further promotion, thus reaching their career's ceiling in an organization.

Peter suggests that in time, every post tends to be occupied by an employee who is incompetent to carry out assigned duties and that work is accomplished and companies are helped forward by those employees who have not yet reached their level of incompetence. He coined the term *hierarchiology* as the social science concerned with the basic principles of hierarchically organized systems in human society.

He noted that their incompetence may be because the required skills are different, but not more difficult. For example, an excellent engineer may be a poor manager if he or she lacks the interpersonal skills necessary to lead a team.

Rather than seeking to promote a talented "super-competent" junior employee, Peter suggested that an incompetent manager may set them up to fail or dismiss them because they are likely to "violate the first commandment of hierarchical life with incompetent leadership: the hierarchy must be preserved". Of course there are some people who raise an eyebrow with respect to the whole proposition.

- 161- What does the passage mainly discuss?
- 1) How to prevent incompetent management
 - 2) The limitations of employees' professional development
 - 3) How the Peter Principle affects progress in organizations
 - 4) The historical background to the advent of the term *hierarchiology*
- 162- According to the passage, the headway that companies make is due to -----.
- 1) the work done by those who are not yet in their level of incompetence
 - 2) employees who do their routine tasks based on the tenets of the Peter Principle
 - 3) the effect of managers that are super-competent and know how to control their employees
 - 4) employers and employees who have already reached their career's ceiling in an organization
- 163- Which of the following is defined in the passage?
- 1) Challenging applications (paragraph 1)
 - 2) Level of incompetence (paragraph 2)
 - 3) Interpersonal skills (paragraph 4)
 - 4) Super-competent (paragraph 5)
- 164- Which of the following best describes the purpose of the example mentioned in paragraph 4?
- 1) To set a condition
 - 2) To modify the Peter Principle
 - 3) To introduce an exception
 - 4) To support an earlier statement
- 165- What is the paragraph immediately following this passage likely to discuss?
- 1) More advantages of the Peter Principle
 - 2) Some weaknesses in the Peter Principle
 - 3) Some proposals to improve the Peter Principle
 - 4) Reports by employees affected by the Peter Principle

PASSAGE 3:

Bamboo is a type of grass. It comes in a wide variety of forms, ranging in height from 30 centimeters to more than 40 meters. It is also the world's fastest-growing woody plant; some species can grow more than a meter in a day. Bamboo's ecological root extends beyond providing food and habitat for animals. Bamboo tends to grow in stands made up of groups of individual plants that grow from root systems known as rhizomes. Its extensive rhizome systems, which lie in the top layers of the soil, are crucial in preventing soil erosion. And there is growing evidence that bamboo plays an important part in determining forest structure and dynamics. "Bamboo's pattern of mass flowering and mass death leaves behind large areas of dry biomass that attract wildfire," says Kapos. "When these burn, they create patches of open ground within the forest far bigger than would be left by a fallen tree". Patchiness helps to preserve diversity because certain plant species do better during the early stages of regeneration when there are gaps in the canopy.

However, bamboo's most immediate significance lies in its economic value. Modern processing techniques mean that it can be used in a variety of ways, for example, as flooring and laminates. One of the fastest growing bamboo products is paper. Twenty-five percent of paper produced in India is made from bamboo fiber, and in Brazil, 100,000 hectares of bamboo are grown for its production. Of course, bamboo's main function has always been in domestic applications, and as a locally traded commodity it's worth about \$4.5 billion annually. Because of its versatility, flexibility and strength (its tensile strength compares to that of some steel), it has traditionally been used in construction. Today, more than one billion people worldwide live in bamboo houses. Bamboo is often the only readily available raw material for people in many developing countries, says Chris Stapleton, a research associate at the Royal Botanic Gardens. "Bamboo can be harvested from forest areas or grown quickly elsewhere, and then converted simply without expensive machinery or facilities," he says. "In this way, it contributes substantially to poverty alleviation and wealth creation."

- 166- Which of the following best describes the relationship of the second paragraph to the first one?
- 1) It moderates the degree of the significance attached to bamboo in the first paragraph by way of reference to scientific evidence.
 - 2) It cites examples of human misuse of bamboo, which is likely to impair its ecological role described in the first paragraph.
 - 3) It moves on to another application domain of bamboo in addition to the one discussed in the first paragraph.
 - 4) It provides tangible examples for each claim made about the utility of bamboo in the first paragraph.
- 167- All of the following are true about bamboo EXCEPT that it -----.
- 1) endangers animals' life in forests by creating gaps in the canopy
 - 2) is instrumental in contributing to forest dynamics
 - 3) is used by some animals for shelter
 - 4) helps protect soil from erosion
- 168- Why has the author referred to India and Brazil in paragraph 2?
- 1) Because they both use bamboo to fight poverty
 - 2) Because they both grow the largest amount of bamboo globally
 - 3) Because they both support the assertion that one of the fastest growing bamboo products is paper
 - 4) Because they both make the most economic use of bamboo by exporting it for paper production in other countries
- 169- The word "that" in paragraph 2 refers to -----.
- 1) tensile strength 2) commodity 3) versatility 4) bamboo
- 170- The tone of the passage could best be described as -----.
- 1) critical and demanding 2) favorable and supportive
 - 3) scholarly and concerned 4) skeptical and questioning