پنج شنبه ۲-۱۲-۲/-۶

به نام آنکه جان را فکرت آموخت

وزارت بهداشت، درمان و آموزش پزشکی معاونت آموزشی دبیرخانه شورای آموزش علوم پایه پزشکی، بهداشت و تخصصی مرکز سنجش آموزش پزشکی

سوالات آزمون ورودی دکتری تخصصی (Ph.D) سال تحصیلی ۱۴۰۳-۱۴۰۳

رشته آمار زیستی

تعداد سوالات: ١٣٠

زمان پاسخگویی: ۲۰۰ دقیقه

تعداد صفحات: ۲۰

مشخصات داوطلب:

نام:.....نام:

نام خانوادگی:....

داوطلب عزيز

لطفاً قبل از شروع پاسخگویی:

دفترچه سوالات را از نظر تعداد صفحات به دقت مورد بررسی قرار داده و در صورت وجود هرگونه اشکال به مسئولین جلسه اطلاع دهید.

توجه: استفاده از ماشین حساب مجاز نمیباشد.

قیمت: ۳۰۰۰۰ تومان

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زيان تخصصے

101- Which item is correct about the covariance:

- a) Dispersion of the data around mean.
- b) A measure of the strength of relationship between two binary variables.
- c) Dependent on the units of measurement of the variables.
- d) A standardized version of the correlation coefficient.

102- The degree to which a statistical model represents the collected data is known as the:

- a) Fitting
- b) Reliability
- c) Homogeneity
- d) Validity

103- R-squared is known as the:

- a) Partial correlation coefficient.
- b) Multiple correlation coefficient.
- c) Semi-partial correlation coefficient.
- d) Coefficient of determination.

104- Multivariate analysis of variance (MANOVA) is appropriate for data:

- a) that have one or more dependent variables and more than two independent variables.
- b) with two or more dependent variables and one or more independent variables.
- c) with two or more dependent variables and only one independent variable.
- d) with only one dependent variable and more than three independent variables.

105- An asymmetric Box and Whisker diagram indicates that the distribution of the data is:

- a) Normal
- b) bimodal
- c) skewed
- d) t

106- When there is correlation among explanatory variables in a regression model, we may face with:

- a) Heteroscedasticity
- b) Multicollinearity
- c) Homoscedasticity
- d) Overdispersion

107- Suppose that a sample space S has n elements. The number of subsets of S is:

- a) $2^{n} 1$
- b) 2^n
- c) n^2
- d) n

108- A 95% confidence interval for average height in a population means that:

a) The expected error rate is equal to 5%

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- b) The point estimate obtained is within 5% of the true population mean
- c) There is 95% confidence that the sample mean will not vary from the population mean by more than 2 standard error
- d) Height of 95% of the population is within 2 standard deviation of the sample mean.

109- Select the correct answer:

- a) Study results can be clinically significant even if the results are not statistically significant.
- b) The p-value is a measure of association between the exposure and outcome.
- c) Calculating a p-value is one way of adjusting for a potential confounder.
- d) The higher the p-value, the higher the study power.

110- Select the correct statement:

- a) The correlation coefficient, r, is dependent on the units of measurement.
- b) It matters which variable is put on the x-axis and which variable on the y-axis in the scatter plot.
- c) The coefficient of determination can be negative or positive.
- d) The correlation coefficient, r, is sensitive to outliers.

111- Select the correct statement:

- a) The p-value is always calculated under the assumption that the null hypothesis is true.
- b) The p-value is a good estimate of how likely the null hypothesis is incorrect.
- c) The lower the p-value, the more likely the study results will benefit patients.
- d) The p-value is calculated under the assumption that the alternative hypothesis is true.

112- Multiple linear regression analysis can be used to:

- a) adjust for loss to follow-up bias.
- b) adjust for confounding variables.
- c) determine if a study result is clinically important.
- d) calculate a study power.

113- The standard error of the mean is:

- a) used for adjusting of confounding variables by direct or indirect standardization method.
- b) the sample size divided by the square root of the sample standard deviation.
- c) the sample standard deviation divided by sample size.
- d) the standard deviation of the sample means.

114- Which item is a correct statement about clinical and statistical significance?

- a) A study result that is statistically significant may not lead to improved patient outcomes.
- b) Study results that are not statistically significant cannot be clinically significant.
- c) Statistical significance and clinical significance essentially mean the same thing.
- d) The power must be set at 80% or higher to assure clinical significance of study results.

115- Researchers want to assess if there is an association between cigarette smoking and brain cancer. Of the following, which is the best study design to assess this association?

- a) Cross-Sectional study
- b) Case-Control study
- c) Randomized controlled trial
- d) Intervention study

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ل ۱۴۰۲	سال	رشته: آمارزیستی	دکتری ت <i>خصصی</i> (Ph.D)
■ Vo	cabulary		
	Read the following sentences.	ces carefully and choose one of the option	ons (a, b, c, d) to complete the
116-	Dementia, also known as, is seen in elderly individuals whose mental states have started		
	to decline.		
	a) senility		
	b) paucityc) calamity		
	d) asperity		
117-	Colleagues and comrades	over the years were in a mood	at the party anxiously awaiting
	presentations.		
	a) expedient		
	b) thriftyc) greedy		
	d) euphoric		
118-	Youth gangs typically eng	age in, criminal, and violent act	ivities, often for financial gain.
	a) mandatory		
	b) benevolent		
	c) delinquent		
	d) competent		
119-	She quit her job and sold	her car to take a break and travel the v	vorld. She's always been
	about going to new places and meeting new people.		
	a) hesitant		
	b) ardent		
	c) gloomyd) senile		
120-	She acknowledges that th	e new employee's and naïve m	anner antagonized the board of
_ •	<u> </u>	vas willing to take chances.	
	h) andial		

- b) cordial
- c) gorgeous
- d) scandalous

■ Reading comprehension

قبولی در آزمونهای زبان دکتری

دکتری تخصصی (Ph.D) رشته: آ**مارزیستی** سال ۱۴۰۲

Read the following passages carefully and choose the best answers.

Recent advancements have transformed AI technologies into powerful tools for enhancing clinical and operational efficiency. Today, AI is allowing everyone involved in the healthcare ecosystem — doctors, nurses, administrators, and patients — to benefit from enhanced efficiency and better diagnoses. It extends and augments professional capabilities and provides the foundation for better, more cost-effective outcome. It is an enabling technology for a more personalized approach to patient care, focusing on patient outcomes rather than just system efficiency.

During the next 10 years, AI is expected to radically streamline healthcare delivery by providing immensely powerful insights to enhance the patient management pathway, yet there are hurdles to overcome before AI transforms healthcare provision. For example, at present, too much patient consultation time is spent entering data, rather than drawing inferences from it. However, these transitional issues should quickly be resolved as AI is more broadly adopted across the sector, and the outlook among healthcare professionals is positive; almost half of medical staff expect AI will enable more robust diagnoses, and 57% believe its improved predictive capabilities will allow them to focus more on preventive medicine. AI needs to work for healthcare professionals as part of a robust, integrated ecosystem, and success relies on more than simply deploying a new technology. The more 'humanized' the application of AI is, the faster and more widely it will be adopted, and the better the return on the 5. initial investment. Ultimately, this will improve results and patient care and, in healthcare, the priority should always be the patient.

121- In the first paragraph, the writer..... of AI in healthcare system.

- a) explains the foundation
- b) focuses on the status
- c) analyzes the mechanism
- d) illustrates the ecosystem

122- In the above passage, all of the following are mentioned to be positively affected by AI EXCEPT......

- a) personalized technology
- b) healthcare personnel
- c) professional capabilities
- d) clinical operations

123- Which of the following is true?

- a) Less than half of the medical staff believe AI can be used for disease prevention.
- b) 57% of the medical staff think that AI technologies cannot be adopted in healthcare system.
- c) About fifty percent of healthcare personnel expect AI can empower diagnosis.
- d) 50% of the healthcare personnel think that they can overcome hurdles to AI transformation.

124- The writer believes that in the successful adoption of AI, the system should give priority to......

a) patients

b) investment

c) professionals

d) technology

125- In the second paragraph, the future of AI application is predicted to be......

a) impulsive

b) unwarranted

c) confusing

d) promising

Some of the leading causes of sight loss affect the part of the eye called the retina. Supplementation with a certain type of omega fatty acid known as docosahexaenoic acid, or

فست زبان

دکتری تخصصی (Ph.D) رشته: آ**مارزیستی** سال ۱۴۰۲

DHA, can reduce the incidence of retinal disease, however, improving DHA levels in the retina is challenging due to the retina-blood barrier. A group of researchers has now shown that a different form of DHA they have developed can enter the retinal tissue— at least in mice. If the same effect is shown in humans, the supplement could be used to reduce risk and potentially even treat some retinal diseases.

Loss of sight is believed to have a global cost of \$411 billion annually due to medical and care costs, as well as lost work and productivity, according to the World Health Organization. Agerelated macular degeneration and diabetic retinopathy both affect the retina, which is found at the back of the eye and contains many light-sensitive cells which allow us to see. Age-related macular degeneration affects the macula—a part of the retina—and results in central vision being blurred. Meanwhile, diabetic retinopathy is seen in patients with both type 1 and type 2 diabetes and is caused by high blood sugar levels affecting blood flow to the retina, and if untreated, can cause blindness.

126- According to the passage, DHA supplementation is a challenge because......

- a) it is a degenerative process
- b) retinal diseases are incurable
- c) there are retina-blood obstacles
- d) DHA penetrates into the retinal tissue

127- According to the passage, currently, the newly developed DHA......

- a) can treat sight loss in mice
- b) costs \$411 billion for diabetic patients
- c) can enter retinal tissue in humans
- d) reduces the cost of retinopathy to \$411 billion

128- What is the ultimate impact of age-related macular degeneration on the macula?

- a) It can reduce the risk to the retinal tissue.
- b) It leads to blindness in non-diabetic patients.
- c) It deactivates light-sensitive cells.
- d) It specifically blurs the central vision.

129- Which of the following is **NOT** true about diabetic retinopathy?

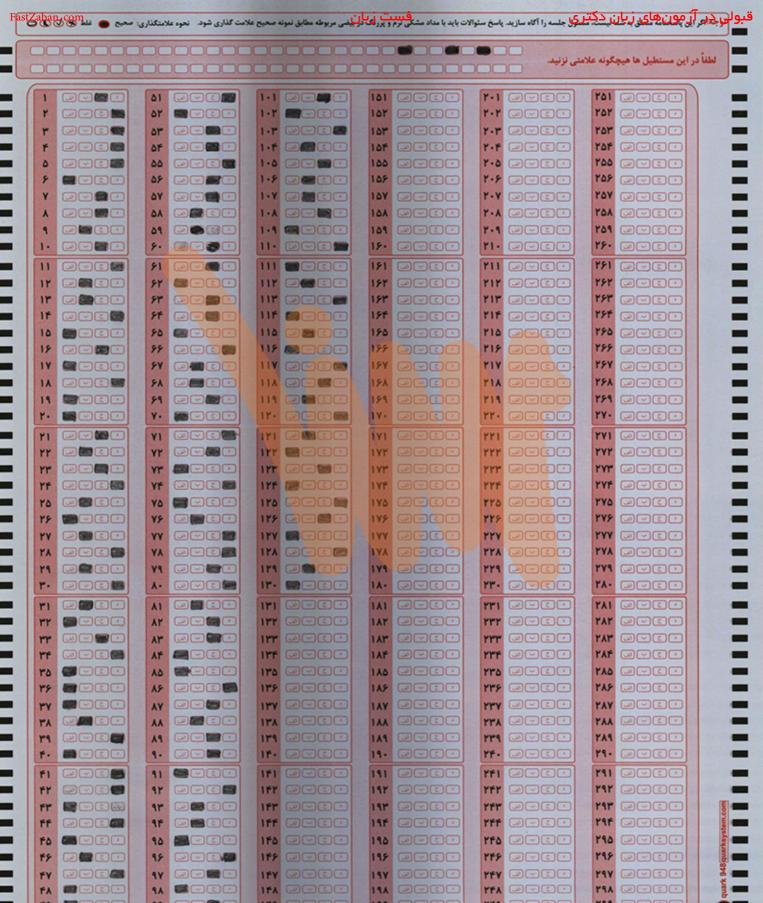
- a) All patients suffering from diabetes may have some signs of diabetic retinopathy.
- b) Retinal diseases are rarely observed in patients with diabetics.
- c) Diabetic retinopathy emerges because of the high blood sugar affecting the retina.
- d) Diabetic retinopathy can finally lead to blindness if untreated.

130- Which of the following is true about the new form of omega fatty acid supplement?

- a) It can possibly cure the retinal illnesses.
- b) Its positive effect on mice has not yet been reported.
- c) It puts the retina and its surrounding tissues at risk.
- d) It removes the blood barriers in patients with diabetes.

موفق باثيد

کلاس آنلاین ه ۳۶ درجه زبان عمومی کنکور دکتری وزارت بهداشت ۱۴۰۴



کتاب واژگان جامع آزمون های زبان Fast Vocab (منبع لغت زبان عمومی کنکور کارشناسی ارشد و دکتری)



شامل لغات کتابهای ۵۰۴، لغات ضروری تافل، ۱۱۰۰، SAT،Sharp Vocab ،GRE، و چند کتاب مرجع دیگر

مبتنی بر روش یادگیری پایدار *لایتنر*

بیش از ۲۲۰۰ لغت مهم کنکورهای ارشد و دکتری و آزمونهای تافل و آیلتس

بیش از ۲۲۰۰ جمله با ترجمه فارسی

بیش از ۲۵۰۰ کلمه مترادف

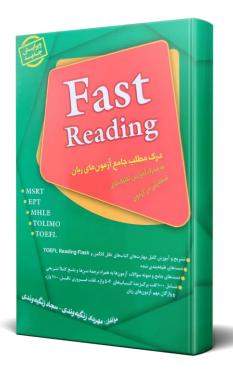
آموزش ریشهها، پسوندهای کلمه و افعال عبارتی مهم

تلفظ PAالغات به همراه آموزش

خودآزمایی و تستهای کنکورهای ارشد و دکتری

کتاب واژگان جامع آزمون های زبان در ۴۳۰ صفحه شامل ۸۷ درس کار شده است. هر درس شامل ۲۰ تا ۳۰ لغت دسته بندی شده است و بعد از هر ۸ درس نیز یک آزمون برای سنجش لغات آورده شده است که پاسخ تشریحی دارد. <u>دانلود رایگان یک فصل کتاب فست وکب</u>





کتاب درک مطلب Fast Reading شامل مهارت های لازم برای پاسخگویی به انواع تیپ سوالات درک مطلب آزمون کارشناسی ارشد و دکتری می باشد. این کتاب مهارت محور به تشریح و تدریس مهارت های لازم جهت پاسخ به سوالات این بخش از آزمون های کارشناسی ارشد و دکتری می پردازد. همچنین یکی دیگر از نکات بارز کتاب کتاب Fast Reading این است که در پایان هر مبحث نمونه ریدینگ های زبان عمومی آزمون کارشناسی ارشد و دکتری ادوار گذشته را مورد تحلیل و بررسی قرار داده است.

حجم مناسب و به اندازه کتاب Fast Reading کار را برای داوطلبان راحت کرده و داوطلبانی که زمان کمی را برای مطالعه دارند می توانند با روزی یک ساعت زمان براحتی بر مهارت های لازم درک مطلب زبان عمومی در مدت زمان یک هفته مسلط شوند. این کتاب شامل نمونه متن های مختلف آزمون های زبان است که دارای ترجمه فارسی و یاسخ تشریحی هستند.

دانلود رایگان یک فصل کتاب فست ریدینگ

توجه مهم: داوطلبان آزمون کارشناسی ارشد و دکتری ۱٤۰٤ لطفا در صورت تهیه بسته زبان عمومی آزمون ارشد - دکتری هیچ منبع و یا کتاب دیگری را مطالعه نکنید !

خرید بسته

اگر قادر به خرید آنلاین نیستید می توانید مبلغ بسته را که در حال حاضر **۵۳۸ هزار تومان می باشد** به شماره کارت **بانک مهر ۱۳۸۸–۱۱۸۲۰۳۱۱۸۲۰ بنام آقای سجاد زنگیه وندی** واریز نمایید و سپس آدرس دقیق پستی به همراه نام گیرنده را به شماره ۹۳۲۰۰۶۷۳۳۳ پیامک نمایید. توجه: سایت فست زبان دارای نشان اعتماد الکترونیک دو ستاره (اینماد) از وزارت صنعت و معدن و تجارت می باشد. سفارشات شما یک روز درمیان ساعت ۹ صبح ارسال خواهند شد و بسته به شهر شما بین ۲۴ ساعت تا ۵ روز کاری بعد تحویل داده خواهند شد.

خرید بسته کامل آزمون زبان عمومی کنکور ارشد یا دکتری