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SERVIÇO DE SELEÇÃO DO PESSOAL DA MARINHA

Concurso Público de Admissão ao Colégio Naval
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NÃO ESTÁ AUTORIZADA A UTILIZAÇÃO DE MATERIAL EXTRA

1º Dia – Prova de Matemática e Inglês

PROVA AMARELA

QUESTÃO 1

Considere que no conjunto Z = { $-\infty, \ldots -3, -2, -1, 0, 1, 2, 3 \ldots, \infty$} o número que vem imediatamente antes é o antecessor e o número que vem imediatamente após é o sucessor. Se a, b e c são números inteiros, b é um sucessor de a e ainda, se o trinômio na variável x, [(x-a) (x+12) − 3] pode ser escrito como o produto (x-b)(x+c), é correto afirmar que a+b+c vale:

(A) 8
(B) 2
(C) 0
(D) - 4
(E) - 6

QUESTÃO 2

Considere as informações a seguir referentes a duas circunferências L_1 e L_2.

L_1: Está inscrita num triângulo equilátero ABC, de altura H e seu raio é R.
L_2: Tem raio r, está na superfície do mesmo triângulo ABC de L_1, tangenciando internamente os lados AB e BC, e tangenciando externamente a circunferência L_1.
É correto afirmar que a expressão E = $\frac{R-r}{H}$ é igual a:

(A) 1/2
(B) 1/3
(C) 2/5
(D) 2/9
(E) 3/7

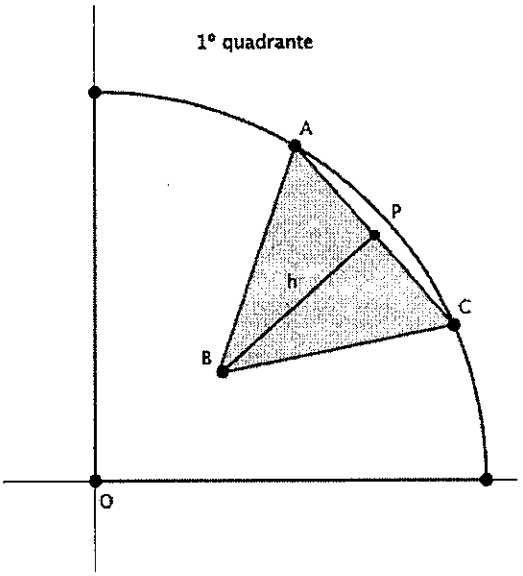
QUESTÃO 3

Um trapézio isósceles ABCD, é tal que $\overline{AB}$ // $\overline{DC}$ e $\overline{AD}$ = $\overline{BC}$. Se $\overline{AC}$ = $10\sqrt{3}$ cm é a bissetriz interna que contém o vértice A e ela forma com a base maior $\overline{AB}$ um ângulo de 30°, é correto afirmar que a área do trapézio em cm^2 é igual a:

(A) $50\sqrt{3}$
(B) $75\sqrt{3}$
(C) $105\sqrt{3}$
(D) $180\sqrt{3}$
(E) $225\sqrt{3}$

QUESTÃO 4

Observe a figura referente a esta questão.



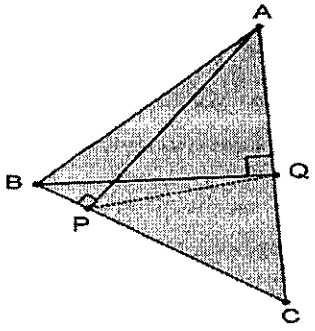
Sabendo que o arco da figura acima foi construído no primeiro quadrante do plano cartesiano de origem O e é parte de uma circunferência de raio 5, a distância $\overline{OB}$ = 2 e ainda que ABC é um triângulo equilátero, P é ponto médio de $\overline{AC}$, $\overline{PB} \perp \overline{AC}$ e os pontos O,B e P são colineares, é correto afirmar que o intervalo que apresenta a medida do perímetro do triângulo ABC é:

Dados $\sqrt{3}$ =1,7 e $\sqrt{6}$=2,4

(A) [9,11[
(B) [11,12[
(C) [12,14[
(D) [14,15[
(E) [15,17[

QUESTÃO 5

Analise a figura abaixo.



Se $\overline{AB}$ = 12 cm, $\overline{AC}$ = 10 cm e $\overline{BC}$ = 8 cm e dado ainda que $\overline{BQ} \perp \overline{AC}$ e $\overline{AP} \perp \overline{BC}$, ao traçar o segmento $\overline{PQ}$ e tomando $\overline{PQ}$ = x, determine em função de x a altura relativa ao lado $\overline{PQ}$ no triângulo PQC, e assinale a opção correta.

(A) $\frac{7\sqrt{7}}{6}x$

(B) $\frac{5\sqrt{7}}{24}x$

(C) $\frac{3\sqrt{5}}{6}x$

(D) $\frac{5\sqrt{5}}{8}x$

(E) $\frac{6\sqrt{7}}{12}x$

QUESTÃO 6

Um triângulo retângulo isósceles está inscrito na circunferência L_1 e circunscrito a circunferência L_2. Se os catetos desse triângulo medem 5 cm e as áreas de L_1 e L_2 são respectivamente S_1 e S_2 , é correto afirmar que a razão $\frac{S_1}{S_2}$ é:

(A) $7 - 2\sqrt{2}$

(B) $\frac{10+\sqrt{5}}{3}$

(C) $\frac{5+2\sqrt{3}}{2}$

(D) $6 - \sqrt{2}$

(E) $3+2\sqrt{2}$

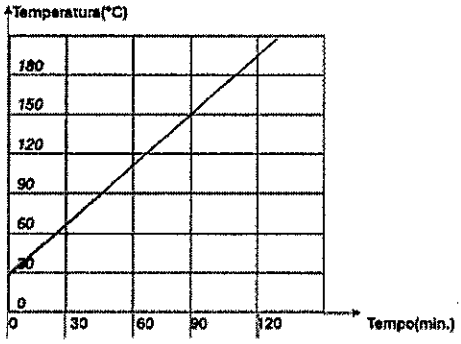
QUESTÃO 7

Na simulação de um lançamento de um projétil, considera-se que o lançamento é feito a partir da origem do plano cartesiano e que sua trajetória é modelada pela sentença $y + \frac{1}{200}x^2 - \frac{1}{5}x = 0$. Se x e y são dados em metros, é correto afirmar que a menor distância entre o ponto de partida e o ponto de chegada do projétil, tendo como referência o eixo das abscissas é, de:

(A) 40 m
(B) 50 m
(C) 60 m
(D) 70 m
(E) 80 m

QUESTÃO 8

Analise o gráfico abaixo.

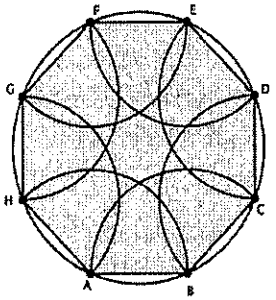


O gráfico mostra a variação da temperatura de um forno caseiro desde o instante em que é ligado e o correspondente aumento linear nas horas seguintes. É correto afirmar que o tempo necessário para que o forno atinja 190° C é:

(A) 2h15min
(B) 2h10min
(C) 2h05min
(D) 2h
(E) 1h 55min

QUESTÃO 9

Analise a figura abaixo.



Na figura há, inscrito num círculo, um octógono regular com perímetro igual a 24 unidades de comprimento, e também uma rosácea. Se o perímetro 2P dessa rosácea é a soma de todos os arcos dos setores circulares com centro nos vértices do octógono, conforme se observa na sua construção, é correto afirmar que, em unidades de comprimento, 2P vale:

(A) $12\,\pi$
(B) $18\,\pi$
(C) $24\,\pi$
(D) $32\,\pi$
(E) $48\,\pi$

QUESTÃO 10

O dono de uma hamburgueria vende um combo de sucesso por R$ 35,00 cada e atinge uma média de vendas de 200 combos por dia. Uma empresa de consultoria mostrou para ele que, a cada real de desconto que ele concedesse no preço do combo, sua média diária aumentaria em 20 unidades. Num determinado mês, após um período fazendo o que o consultor sugeriu, ele obteve receita máxima diária, depois de conceder um certo valor de desconto. É correto afirmar que nesse mês a receita máxima diária com a venda desse combo foi de:

(A) R$ 12500,00
(B) R$ 12125,00
(C) R$ 11500,00
(D) R$ 10750,00
(E) R$ 10125,00

QUESTÃO 11

Num laboratório, certo teste é feito com duas cobaias em um circuito circular. Uma cobaia percorre completamente o circuito em 6 horas enquanto a outra o completa em 4 horas. Num determinado dia o cientista posiciona as duas cobaias num mesmo ponto de partida e as faz percorrer o circuito em sentidos opostos. Qual é a medida em radianos do arco percorrido pela cobaia mais lenta ao encontrar pela primeira vez a cobaia mais rápida?

(A) $\frac{\pi}{8}$

(B) $\frac{\pi}{5}$

(C) $\frac{4\pi}{5}$

(D) $\frac{5\pi}{6}$

(E) $\frac{6\pi}{5}$

QUESTÃO 12

O conjunto solução S da inequação $\frac{x^3+x^2+5x+14}{5x+10} \geq 1$ é tal que S é dado pelo intervalo:

(A)]-2, ∞[
(B)]-∞,-2[
(C) $\mathcal{R} - \{-2\}$
(D) { }
(E)]-∞ ,-2]

QUESTÃO 13

Analise as afirmativas abaixo:

I- Se A= $\frac{-5^3-6^2}{-7^2}$ e B= $\frac{(-5)^3+(-6)^2}{(-7)^2}$ então A+B=0

II- $\frac{8{,}6666\ldots}{4{,}3333\ldots} = 2{,}2$

III- Se $\frac{a}{b} = 2{,}4868686\ldots, então\ (a-b) = 241$

IV- A soma do número de casas decimais do número $(0{,}2)^{12}$ com a soma de todos os seus algarismos é 35.

Assinale a opção correta.

(A) As afirmativas I, II, III, IV são verdadeiras.
(B) Apenas as afirmativas II e III são verdadeiras.
(C) Apenas as afirmativas I e III são verdadeiras.
(D) Apenas a afirmativa III é verdadeira.
(E) Apenas a afirmativa II é verdadeira.

QUESTÃO 14

Considere no campo dos números reais a equação irracional a seguir:

$$\sqrt{(12-2x)^2} + \sqrt{(x^2-5x+9)^2} = \sqrt{(x^2-3x-3)^2}$$

É correto afirmar que o menor inteiro m, que faz parte de seu conjunto solução, é um número tal que m:

(A) é um quadrado perfeito.
(B) possui 3 divisores naturais.
(C) possui 4 divisores naturais.
(D) é um número primo.
(E) é um cubo perfeito.

QUESTÃO 15

Considere a igualdade $A^3 - A^2z - A^2y + Ayz - A^2x + Axz + Axy - \frac{x^2}{2} - \frac{y^2}{2} - \frac{z^2}{2} - 4xy - 4yz - 4xz + xyz = 0$, e ainda que $A^3 = (x+y+z)^3$, $B = xy + xz + yz$ e $C = A^2$.

É correto afirmar que xyz é igual a:

(A) – AB +3B + C/2
(B) AB- C/2
(C) AB/2 –2B +3C
(D) -AB+B/2+ C
(E) -2AB+B+C/2

QUESTÃO 16

Se j, k, l e m são algarismos não nulos, ao simplificar a fração $\frac{\overline{jkjk}}{\overline{lmlm}}$, é sempre verdade que:

(A) $\frac{jk}{m}$
(B) $\frac{k}{lm}$
(C) $\frac{jk}{lm}$
(D) $\frac{jkl}{m}$
(E) $\frac{jl}{km}$

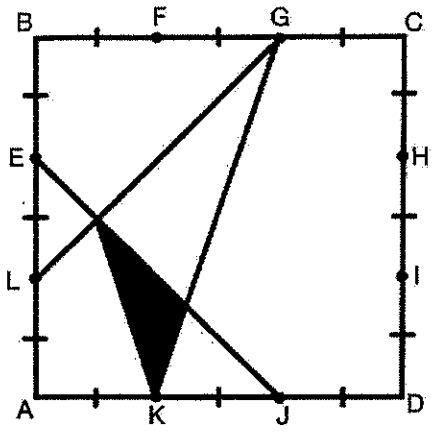
QUESTÃO 17

Considere **ð**, o operador matemático , que associa a raiz quadrada do maior quadrado perfeito menor do que o produto dos fatores envolvidos, isto é 11**ð** 14 = 12 porque o maior quadrado perfeito menor do que o produto (11x14 = 154) é 144 e $\sqrt{144}$ = 12. Se A = {5 **ð** [6 **ð** (7 **ð** 8)]}$^{2\,ð\,11}$ e B = {[(8**ð** 6) **ð** 11] **ð** 8}$^{3\,ð\,6}$, é correto afirmar que o valor de A **ð** B é igual a:

(A) 1062
(B) 1063
(C) 1224
(D) 1225
(E) 1376

QUESTÃO 18

Analise a figura abaixo.



A figura acima apresenta um quadrado de lado igual a 6 unidades de comprimento. Considerando que o segmento com marcas iguais são congruentes, é correto afirmar que, em unidades de área, a área da região sombreada é igual a:

(A) $\frac{1}{2}$

(B) $\frac{3}{2}$

(C) $\frac{5}{2}$

(D) $\frac{3}{4}$

(E) $\frac{5}{4}$

QUESTÃO 19

Observe o sistema abaixo.

$$\begin{cases} \sqrt[4]{x} + \sqrt[5]{y} = 3 \\ \sqrt{x} + \sqrt[5]{y^2} = 5 \end{cases}$$

Existem dois pares ordenados $A(x_1,y_1)$ e $B(x_2,y_2)$ que solucionam o sistema apresentado. Se representarmos os pontos A e B no sistema cartesiano é correto afirmar que a menor distância entre eles é igual a:

(A) $\sqrt{934}$

(B) $\sqrt{1186}$

(C) $\frac{\sqrt{711}}{2}$

(D) $\sqrt{1231}$

(E) $\frac{\sqrt{1411}}{2}$

QUESTÃO 20

Sendo a, b, x e y números naturais, sabe-se que o produto $x \cdot y$ é ímpar, e que o valor de $(x \cdot y)\%$ de $a \cdot b$ é igual a 17,6. Se *a* é um número primo, está correto afirmar que o número **b** escrito na base 3 é :

(A) $(1102)_3$
(B) $(1012)_3$
(C) $(211)_3$
(D) $(121)_3$
(E) $(22)_3$

Read Text I to answer questions 21 and 22.

TEXT I

https://comicskingdom.com/pajama-diaries/2016-05-26

QUESTÃO 21

The mother finally realizes the reason why her daughter:

(A) is always late and runs to school.
(B) gets lost and does not go to school.
(C) takes photos only when going to school.
(D) makes up excuses not to go on foot to school.
(E) spends more than half an hour going to school.

QUESTÃO 22

Mark the grammatically correct question for this sentence extracted from the cartoon: "it takes her 40 minutes to walk five blocks to school".

(A) How long does she take to walk to school?
(B) How long does it take her to walk to school?
(C) How long it takes her to walk to school?
(D) How long she takes to walk to school?
(E) How long does she go to walk to school?

Read Text II to answer questions 23 to 27.

TEXT II

France to trial ban on mobile phones at school for children under 15

Kim Willsher - Paris
Tue 27 Aug 2024

France is to trial a ban on mobile phones at school for pupils who are younger than 15, seeking to give children a "digital pause" that, if judged successful, could be rolled out nationwide from January.

Just under 200 secondary schools will take place in the experiment that will require youngsters to hand over phones on arrival at reception. It takes the prohibition on the devices further than a 2018 law that banned pupils at primary and secondary schools from using their phones on the premises but allowed them to keep possession of them.

Announcing the trial on Tuesday, the acting education minister, Nicole Belloubet, said the aim was to give youngsters a "digital pause". If the trial proves successful, the ban would be introduced in all schools from January, Belloubet said.

A commission set up by the president, Emmanuel Macron, expressed concern that the overexposure of children to screens was having a detrimental effect on their health and development.

A 140-page report published in March concluded there was "a very clear consensus on the direct and indirect negative effects of digital devices on sleep, on being sedentary - a lack of physical activity and the risk of being overweight and even obese - as well as on sight". It said the "hyper" use of phones and other digital technology was not only bad for children but also for "society and civilisation".

The report recommended children's use of mobile phones be controlled in stages: no mobile phones before the age of at least 11, mobiles without internet access between 11 and 13, phones with internet but no access to social media before 15.

It also suggested children under three years old should not be exposed at all to digital devices, which it said were "not necessary for the healthy development of the child".

"We must put the digital tool in its place. Up to at least six years old a child has no need for a digital device to develop," Servane Mouton, a neurologist and neurophysiologist who was on the commission, said. "We have to teach parents once again how to play with their children."

Banning phones in schools has long been debated across Europe. In countries where bans exist this is most often confined to their use and do not require children to hand them over.

In Germany there are no formal restrictions but most schools have prohibited the use of mobile phones and digital devices in classrooms except for education purposes. A quasi ban has been in place in Dutch secondary school classrooms since the beginning of this year, but as a recommendation and not a legal obligation. From this school year the directive will also apply to primary schools.

Italy was early to phone bans, introducing one in 2007, easing it in 2017 and reimposing it in 2022. It applies to all age groups.
In February this year, the British government issued guidance for schools "on prohibiting the use of mobile phones throughout the school day" but said it was for individual head teachers and leaders to decide on phone use policy.
Portugal is experimenting with a compromise by introducing a number of phone-free days at schools each month, while in Spain schools in some autonomous regions have imposed a ban but there is no nationwide prohibition.

Adapted from:
<https://www.theguardian.com/world/article/2024/aug/27/france-to-trial-ban-on-mobile-phones-at-school-for-children-under-15>

QUESTÃO 23

Mark the option in which the extract from the text contains an adverb in the comparative degree.

(A) "France is to trial a ban on mobile phones at school for pupils who are younger than 15, seeking to give children a "digital pause" that, if judged successful, could be rolled out nationwide from January." (1st paragraph)
(B) "It takes the prohibition on the devices further than a 2018 law that banned pupils at primary and secondary schools from using their phones on the premises but allowed them to keep possession of them." (2nd paragraph)
(C) "A 140-page report (...) concluded there was 'a very clear consensus on the direct and indirect negative effects of digital devices on sleep, on being sedentary - a lack of physical activity and the risk of being overweight and even obese - as well as on sight.'" (5th paragraph)
(D) "In countries where bans exist this is most often confined to their use and do not require children to hand them over." (9th paragraph)
(E) "In Germany there are no formal restrictions but most schools have prohibited the use of mobile phones and digital devices in classrooms except for education purposes." (10th paragraph)

QUESTÃO 24

The pronouns in the sentence "(...) but allowed them to keep possession of them" (2nd paragraph) refer to, respectively:

(A) premises / pupils
(B) schools / pupils
(C) pupils / phones
(D) schools / phones
(E) pupils / premises

QUESTÃO 25

It is correct to infer that in France:

(A) students under fifteen at certain schools will have to leave their phones at the receptions when the ban becomes effective.
(B) there is no possibility that the phone ban will cover all schools throughout the country from January.
(C) according to some experts, children under three years old can use digital devices, as long as their parents also play with them.
(D) this is the first time that the French government is trying a ban on phones at primary and secondary schools.
(E) the president, Emmanuel Macron, recommended that children under fifteen should not use any kind of digital device.

QUESTÃO 26

According to the text:

(A) in Germany, mobile phone use has been formally restricted for education purposes in all schools.
(B) in Italy, a more severe phone ban for all age groups was imposed in 2017, but it didn't last 5 years.
(C) in Portugal, there are some specific days a month when students can't use their phones at school.
(D) in Holland, schools have legally banned the use of mobile phones or any digital devices in class.
(E) in the UK, head teachers and leaders are allowed to call the police to prohibit phone use in schools.

QUESTÃO 27

The main purpose of the experiment in France is to:

(A) prohibit kids' exposure to any digital devices.
(B) prove that mobile phones can be controlled.
(C) encourage pupils to have a sedentary life.
(D) teach youngsters how to play with smartphones.
(E) provide children with a digital pause at schools.

Read Text III to answer questions 28 to 31.

TEXT III

Czech star gymnast dies after falling over 200 feet from mountain while attempting to take selfie

By Scott Thompson - Fox News
Updated August 26, 2024

The Daily Mail reports that 23-year-old Natalie Stichova was declared dead six days after falling 262 feet down Tegelberg Mountain in Bavaria, Germany, on Aug. 15.
A friend of the gymnast told Czech media that Stichova was trying to take a selfie when she fell. The person, who wanted to remain anonymous, said Stichova was close to the edge of the mountain when her foot appeared to slip while setting up for a photo in front of the castle.
"We will never find out whether she slipped or whether a piece of the rock edge broke off," the friend said, per the Daily Mail.
Stichova was reportedly with her boyfriend, David, and two friends _____ the time of the incident. Police said it was a challenging climb to reach the gymnast after her fall. Although Stichova was alive when first responders arrived, she was suffering from severe injuries.
The Daily Mail reports Stichova's family took her off life support due to irreversible brain damage _____ Aug. 21. She died _____ 5:30 a.m. that day.
"With deep sorrow, we announce that our wonderful friend, gymnast, representative, and coach, Natalie Stichova, has left us forever due to a tragic accident," Stichova's club, Sokol Pribram Sports Gymnastics, said in an official statement, per the Daily Mail. "We are extending our heartfelt condolences to her family and close friends, sending them strength and support."

Adapted from: <https://www.foxnews.com/sports/czech-star-gymnast-dies-after-falling-over-200-feet-from-mountain-while-attempting-take-selfie-report>

QUESTÃO 28

Mark the option in which the statement, in parenthesis, correctly explains the verb tense(s) used in the corresponding extracts from the text.

(A) "Czech star gymnast dies after falling over 200 feet from mountain". (simple present tense to express a routine action)
(B) "We will never find out whether she slipped or whether a piece of the rock edge broke off". (future tense with "will" to express a promise)
(C) (...) "our wonderful friend, gymnast, representative, and coach, Natalie Stichova, has left us forever due to a tragic accident". (present perfect tense to express a person's life experience)
(D) "We are extending our heartfelt condolences to her family and close friends, sending them strength and support". (present continuous tense to express future arrangements)
(E) "Stichova was trying to take a selfie when she fell". (past continuous and simple past tense to express an action in progress interrupted by another action in a certain period of the past)

QUESTÃO 29

Complete the three gaps in the 4th and 5th paragraphs with the missing prepositions. Then, mark the correct option, respectively.

(A) at / on / at
(B) at / in / on
(C) in / in / on
(D) in / on / at
(E) in / in / at

QUESTÃO 30

Which word ending in *_ing*, extracted from the text, is used as an adjective?

(A) Falling (title).
(B) Attempting (title).
(C) Challenging (4th paragraph).
(D) Suffering (4th paragraph).
(E) Sending (6th paragraph).

QUESTÃO 31

In the extract "Although Stichova was alive when first responders arrived, she was suffering from severe injuries" (4th paragraph), "although" is used to express:

(A) cause.
(B) result.
(C) reason.
(D) addition.
(E) contrast.

Read text IV to answer questions 32 and 33.

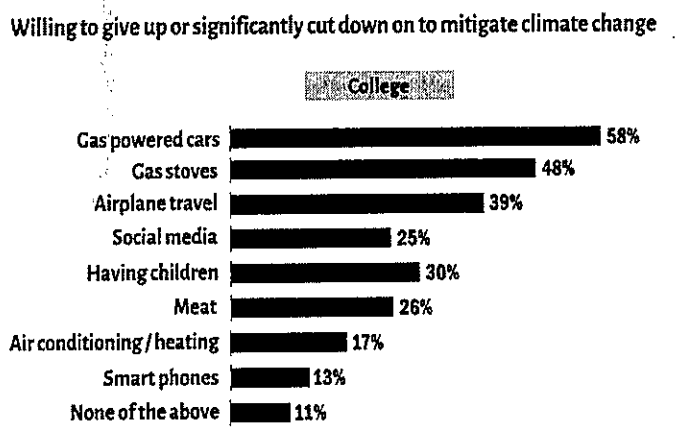
TEXT IV

Fewer than 1 in 5 would give up their smartphone to mitigate climate change, YAF poll found

According to a poll published on Aug. 13, 2023 from the Young America's Foundation, two thirds of college students believe climate change is a threat to their generation, but fewer than one in five are willing to give up their smartphones to help, a recent poll found. More college students would sacrifice having children and eating meat before giving up their cellphones.

The poll, facilitated by Echelon Insights, asked 812 college students in mid-July about a wide variety of topics, including environmental issues. According to the poll, 86 percent believe climate change is happening, and nearly two thirds, 67 percent, believe it is a threat for their generation. But when asked what they are willing to give up or significantly cut down on to "help mitigate climate change," only one in five - or 13 percent - chose their smartphones.

Anthony Watts, senior fellow for environment and climate at the Heartland Institute, said the results did not surprise him. He said giving up a smartphone - "essentially a visual stimulation drug" - is like trying to end a drug addiction, and it isn't surprising that students are more willing to sacrifice almost anything else.



Adapted from <https://www.thecollegefix.com/more-college-students-would-give-up-having-children-eating-meat-than-cellphones-to-help-climate-poll/>

QUESTÃO 32

It is correct to infer that the poll:

(A) interviewed more than eight thousand individuals.
(B) was conducted with American high-school students.
(C) showed surprising results, according to Anthony Watts.
(D) included various topics, in addition to environmental issues.
(E) was carried out on 08/13/2023, by Young America's Foundation.

QUESTÃO 33

Among the students asked in the poll:

(A) 26% said they would never give up eating meat.
(B) 67% said they don't believe climate change exists.
(C) almost 50% said they would sacrifice gas powered cars.
(D) 11% said they are not willing to give up any of the options.
(E) fewer than 30% said they may abstain from having children.

Read text V to answer questions 34 and 35.

TEXT V

US considers 'sun blocking' to cool the Earth

It sounds like something out of a sci-fi novel, but some researchers want to cool the earth by reflecting sunlight back into space. Sun blocking' technologies - also known as solar radiation modification (SRM) - could theoretically cool down the earth by reflecting sunlight back into space. One idea involves pumping sun-blocking particles into the upper atmosphere. This process of 'stratospheric aerosol injection' would involve planes spraying an aerosol like sulfur dioxide into the stratosphere. This mist of particles would reflect the sun back upwards, shading the earth. The method has already worked - although accidentally. When Mount Pinatubo in the Philippines erupted in 1991, it released thousands of tons of sulfur dioxide. The global temperature temporarily dropped by 0.5°C. In September 2022, researchers at Yale University argued that the injection method could hypothetically refreeze the poles.

A White House report published last Friday confirms that the US is open to researching SRM. "A programme of research into the scientific and societal implications of solar radiation modification (SRM) would enable better-informed decisions about the potential risks and benefits of SRM as a component of climate policy, alongside the foundational elements of greenhouse gas emissions mitigation and adaptation," it says. However, the report also clarifies that no decision has been made to "establish a comprehensive research programme focused on solar radiation modification."

In February, several news outlets reported that the UN wanted to 'explore' this technique. This could give the impression that the organisation had approved sun blocking as a viable tool to fight climate change. Unfortunately for tech enthusiasts, this is not the case. The UN Environmental Program's recent report into SRM concludes that it is not currently a realistic or wise plan. "UNEP concurs with the panel that, at present, large-scale, or operational deployment of SRM technologies is not necessary, viable, prudent or sufficiently safe, given the limited scientific understanding and uncertainty about the potential impacts and unintended consequences," says UNEP's Chief Scientist Andrea Hinwood. "The review concludes that SRM cannot replace reducing greenhouse gas emissions." Nonetheless, the body doesn't rule out the method altogether, with the report concluding that their assessment of the technique "may change should climate actions remain insufficient".

Adapted from https://www.euronews.com/green/2023/07/05/sun-blockers-us-scientists-aim-to-cool-the-earth-by-reflecting-sunlight-into-space

QUESTÃO 34

It may be inferred from the text that solar radiation modification:

(A) is the only short-term solution to cool the earth.
(B) has been highly tested and is considered effective.
(C) has been approved by the UN to fight climate changes.
(D) may be used if current climate actions are not sufficient.
(E) will take the place of greenhouse gas emissions reduction.

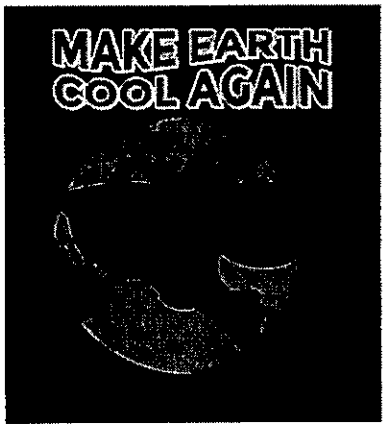
QUESTÃO 35

What type of text is it?

(A) A news article.
(B) An advertisement.
(C) An opinion column.
(D) A book review.
(E) A short story.

Read text VI to answer question 36.

TEXT VI



QUESTÃO 36

In the picture about global warming, the word "cool" is used in multiple senses. Say which definitions are applicable and then mark the correct option.

I- Calm, free of tensions.
II- Lacking enthusiasm; unfriendly.
III- Become or cause to become less hot.
IV- Good or acceptable.

(A) Only I, II and III.
(B) Only I, III and IV.
(C) Only II, III and IV.
(D) Only II and III.
(E) Only I and IV.

Read text VII to answer questions 37 to 40.

TEXT VII

"Divergent" is a dark and thrilling series of young adult science fiction books by American novelist Veronica Roth. The trilogy consists of "Divergent" (2011), "Insurgent" (2012), and "Allegiant" (2013), which were later adapted into 3 films.
It is set in a post-apocalyptic dystopian Chicago that has separated its population into five Factions, each defined by certain values. The Factions are Dauntless (the brave), Amity (the kind), Erudite (the intelligent), Abnegation (the selfless), and Candor (the honest). Each year, teenagers of a certain age take a placement test and then choose the Faction to which they will devote the rest of their lives. In Chapter 1, we are introduced to Beatrice Prior, who later changes her name to Tris, the protagonist and narrator of the story. As she sits in front of a mirror while her mother cuts her hair, she reflects on the life challenges she will have to face soon.

Chapter 1
THERE IS ONE mirror in my house. It is behind a sliding panel in the hallway upstairs. Our faction allows us to stand in front of it on the second day of every third month, the day my mother cuts my hair.
I sit on the stool and my mother stands behind me with the scissors, trimming. The strands fall on the floor in a dull, blond ring.
When she finishes, she pulls my hair away from my face and twists it into a knot. I note how calm she looks and how focused she is. She is well-practiced in the art of losing herself. I can't say the same of myself.
I sneak a look at my reflection when she isn't paying attention-not for the sake of vanity, but out of curiosity. A lot can happen to a person's appearance in three months. In my reflection, I see a narrow face, wide, round eyes, and a long, thin nose - I still look like a little girl, though sometime in the last few months I turned sixteen. The other factions celebrate birthdays, but we don't. It would be self-indulgent.
(...) "So today is the day," she says.
" Yes," I reply.
"Are you nervous?"
I stare into my own eyes for a moment. Today is the day of the Aptitude test that will show me which of the five factions I belong in. And tomorrow, at the Choosing Ceremony, I will decide on a faction; I will decide the rest of my life; I will decide to stay with my family or abandon them.
"No," I say. "The tests don't have to change our choices."
"Right." She smiles. "Let's go eat breakfast."
"Thank you. For cutting my hair."
She kisses my cheek and slides the panel over the mirror. I think my mother could be beautiful, in a different world. Her body is thin beneath the gray robe. She has high cheekbones and long eyelashes, and when she lets her hair down at night, it hangs in waves over her shoulders. But she must hide that beauty in Abnegation.
We walk together to the kitchen. On these mornings when my brother makes breakfast, and my father's hand skims my hair as he reads the newspaper, and my mother hums as she clears the table - it is on these mornings that I feel guiltiest for wanting to leave them.

Adapted from https://genius.com/Veronica-roth-divergent-chapter-1-annotated

QUESTÃO 37

All the statements below are correct about "Divergent" EXCEPT for:

(A) its central character is a young woman.
(B) it was written by a female American author.
(C) it is a violent and dull book for young adults.
(D) its plot is set in a post-apocalyptic American city.
(E) it is a sci-fi book series later adapted into three movies.

QUESTÃO 38

It is correct to infer that people from Abnegation:

(A) should not be altruistic.
(B) may have birthday parties.
(C) can do whatever they feel like.
(D) are not allowed to show their beauty.
(E) can use a mirror only three times a year.

QUESTÃO 39

In the sentence, "The tests don't have to change our choices" (Chapter 1, line 29), "don't have to" implies "no obligation". Which modal verb expresses the opposite idea of "don't have to"?

(A) Can.
(B) Must.
(C) Might.
(D) May.
(E) Could.

QUESTÃO 40

It is correct to state that Tris:

(A) is going to turn sixteen in a few months.
(B) is a calm, focused person, like her mother.
(C) has already decided not to abandon her family.
(D) is blond, has wide, round eyes, and a thin nose.
(E) feels comfortable about choosing another faction.

INSTRUÇÕES GERAIS AO CANDIDATO

1 - Verifique se a prova recebida e a folha de respostas são da mesma cor (consta no rodapé de cada folha a cor correspondente) e se não faltam questões ou páginas: o caderno é composto por uma prova escrita objetiva com 40 questões de múltipla escolha.

2 - O tempo para a realização da prova será de **5 (cinco) horas**, incluindo o tempo necessário à marcação das respostas na folha de respostas, e não será prorrogado;

3 - Só inicie a prova após ser autorizado pelo Fiscal, interrompendo sua execução quando determinado;

4 - Iniciada a prova, não haverá mais esclarecimentos. O candidato somente poderá deixar seu lugar, devidamente autorizado pelo Supervisor/Fiscal, para se retirar definitivamente do recinto de prova ou, nos casos abaixo especificados, devidamente acompanhado por militar designado para esse fim:
- atendimento médico por pessoal designado pela Marinha do Brasil;
- fazer uso de banheiro; e
- casos de força maior, comprovados pela supervisão do certame, sem que aconteça saída da área circunscrita para a realização da prova.
Em nenhum dos casos haverá prorrogação do tempo destinado à realização da prova; em caso de retirada definitiva do recinto de prova, esta será corrigida até onde foi solucionada;

5 - Confira nas folhas de questões as respostas que você assinalou como corretas antes de marcá-las na folha de respostas. Cuidado para não marcar duas opções para uma mesma questão na folha de respostas (a questão será perdida);

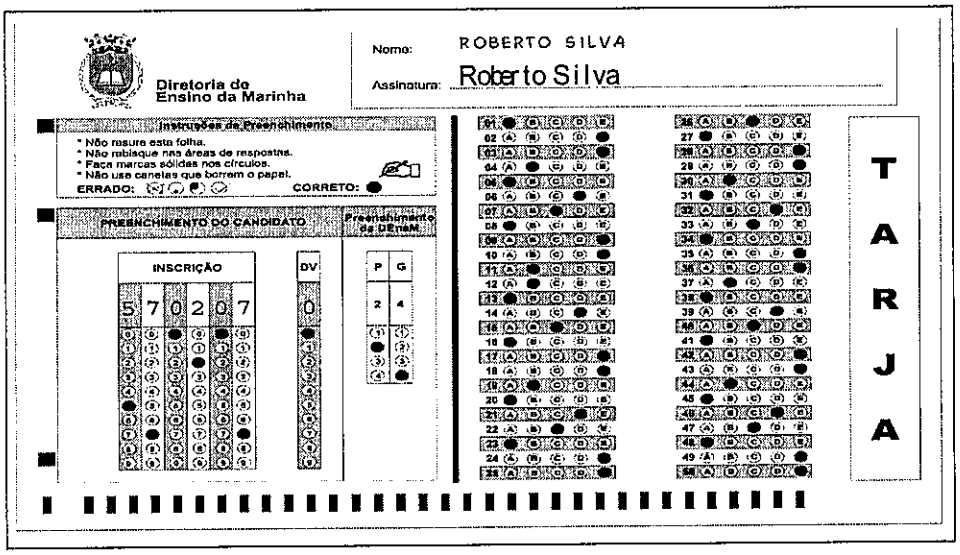
6 - Para rascunho, use os espaços disponíveis nas folhas de questões, mas só serão corrigidas as respostas marcadas na folha de respostas;

7 - O tempo mínimo de permanência dos candidatos no recinto de aplicação de provas é de **150 minutos**.

8 - Será eliminado sumariamente do processo seletivo/concurso e suas provas não serão levadas em consideração o candidato que:
a) der ou receber auxílio para a execução da Prova;
b) utilizar-se de qualquer material não autorizado;
c) desrespeitar qualquer prescrição relativa à execução da Prova;
d) escrever o nome ou introduzir marcas identificadoras noutro lugar que não o determinado para esse fim; e
e) cometer ato grave de indisciplina.

9 - Escreva e assine corretamente seu nome completo, coloque seu número de inscrição e o dígito verificador (DV) apenas nos locais indicados;
Instruções para o preenchimento da folha de respostas:
a) use caneta esferográfica azul ou preta de material transparente;
b) escreva seu nome completo, sem abreviaturas, em letra legível no local indicado;
c) assine seu nome no local indicado;
d) no campo inscrição DV, escreva seu número de inscrição nos retângulos, da esquerda para a direita, um dígito em cada retângulo. Escreva o dígito correspondente ao DV no último retângulo. Após, cubra todo o círculo correspondente a cada número. Não amasse, dobre ou rasgue a folha de respostas, sob pena de ser rejeitada pelo equipamento de leitura ótica que a corrigirá; e
e) só será permitida a troca de folha de respostas até o início da prova, por motivo de erro no preenchimento nos campos nome, assinatura e número de inscrição, sendo de inteira responsabilidade do candidato qualquer erro ou rasura na referida folha de respostas, após o início da prova.

10 - Preencha a folha com atenção de acordo com o exemplo abaixo:



11 – Será autorizado ao candidato levar a prova faltando 30 minutos para o término do tempo previsto de realização do concurso. Ressalta-se que o caderno de prova levado pelo candidato é de preenchimento facultativo, e não será válido para fins de recursos ou avaliação.

12 – O candidato que não desejar levar a prova está autorizado a transcrever suas respostas, dentro do horário destinado à solução da prova, no modelo de gabarito impresso no fim destas instruções. É proibida a utilização de qualquer outro tipo de papel para anotação do gabarito.

13 – O modelo de gabarito somente poderá ser destacado PELO FISCAL e após a entrega definitiva da prova pelo candidato. Caso o modelo de gabarito seja destacado pelo candidato, este será eliminado.

ANOTE SEU GABARITO										PROVA DE COR _____									
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40