

英 語

注 意

1. 問題は全部で18ページである。
2. 解答用紙に氏名・受験番号を忘れずに記入すること。(ただし、マーク・シートにはあらかじめ受験番号がプリントされている。)
3. 解答はすべて解答用紙に記入すること。
4. 問題冊子の余白等は適宜利用してよいが、どのページも切り離してはいけない。
5. 解答用紙は必ず提出のこと。この問題冊子は提出する必要はない。

マーク・シート記入上の注意

1. 解答用紙(その1)はマーク・シートになっている。HBの黒鉛筆またはシャープペンシルを用いて記入すること。
2. 解答用紙にあらかじめプリントされた受験番号を確認すること。
3. 解答する記号・番号の○を塗りつぶしなさい。○で囲んだり×をつけたりしてはいけない。

解答記入例(解答が1のとき)

1	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
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4. 一度記入したマークを消す場合は、消しゴムでよく消すこと。×をつけても消したことになる。
5. 解答用紙をよごしたり、折り曲げたりしないこと。

1

次の文を読み、以下の問いに答えなさい。

The amount of time we spend staring at screens has increased dramatically in the last few years. We know that our sedentary lifestyles spent staring at screens impacts our physical health thanks to the obesity crisis, and we're starting to explore the impact on our mental well-being as anxiety disorders are on the rise, but what effect is all this screen time having on our eyesight?

"No one knows for sure at this point if prolonged use of digital devices actually causes permanent damage to the eyes," explained Gary Heiting, OD, senior editor of AllAboutVision.com, "but it's well established that it causes eye strain and discomfort."

Digital eye strain, sometimes referred to as computer vision syndrome, is well documented. If you've ever experienced dry or irritable eyes, blurred vision, eye fatigue, or head, neck and back pain after using a computer or smartphone, then you're familiar with it.

A 2015 report from The Vision Council, ¹³Hindsight Is 20/20/20: Protect Your Eyes from Digital Devices, found that 61 percent of Americans have experienced eye strain after prolonged use of electronic devices — nearly 2 out of every 3 people. Long-term damage or not, we have an outbreak of eye strain on our hands.

What about long-term damage? Because they emit HEV light (also called blue light), staring at phone and tablet screens may actually harm our eyes permanently. HEV light is that portion of the visible light spectrum that comprises light with the shortest wavelengths, which carry the greatest potential to damage living tissue. We're spending almost as much time staring at screens as we do sleeping.

"Many eye care providers are concerned about the potentially damaging effects of high-energy visible (HEV) light emitted by digital devices because

laboratory and animal studies have shown exposure to high levels of HEV light can damage tissue in the retina of the eye in a way that appears consistent with retinal changes associated with macular degeneration, a leading cause of permanent vision loss in older adults,” says Dr. Heiting. “But no one knows for sure at this point if prolonged use of digital devices causes sufficient exposure to HEV light to cause permanent eye damage.”

Blue (HEV) light is also emitted by the sun and LED light bulbs, but *most* of us don't stare at them for hours on end. Was Mom right about not sitting so close to the TV? You don't need to worry about going cross-eyed, but your mom may have had a point about sitting too close to the TV. It may actually harm your eyes. Proximity is definitely a factor in eye strain and HEV light exposure.

“The amount of HEV light exposure a person receives depends on many factors, including screen technology, screen size, screen brightness, distance from the screen to the user's face, and duration of use,” Dr. Heiting explains. “Even though smartphones have small screens, they potentially could cause greater cumulative HEV light exposure than a large-screen TV.”

Part of the problem is that we tend to open our eyelids wider and blink less frequently when we're staring at screens. Fatigue kicks in because we're focusing on a screen at a fixed distance for a prolonged period without looking away.

How much time do we actually spend on screens? Mary Meeker's Internet Trends 2014 report found that the average American (aged 16-44) spends 444 minutes or 7.4 hours staring at screens every day. That's 147 minutes of television, 103 minutes on a computer, 151 minutes with smartphones, and 43 minutes on a tablet.

We're spending almost as much time staring at screens as we do sleeping, the Bureau of Labor Statistics puts the average night's sleep for an American (aged 25-54) at 7.7 hours. Many of us, especially those who work on a

computer all day, spend most of our waking lives staring at screens. The Vision Council report reveals that a third of adults spend more than 9 hours every day on digital devices, but there are clear generational differences:

Percentage of population that spends more than 9 hours a day on devices:

26 percent of Baby Boomers, born between 1946 and 1964

32 percent of Gen Xers, born between 1965 and 1980

37.4 percent of Millennials, born between 1981 and 1996

It should come as no surprise then that digital eye strain is on the rise.

All this extra screen time is also part of a shifting trend toward close-up work that's thought to contribute to rising levels of myopia or nearsightedness. Apparently the condition is reaching epidemic levels worldwide. The National Eye Institute reports 34 million Americans suffer from myopia right now and projects that figure will hit nearly 40 million by 2030.

What can you do to protect yourself? We may still be in the dark about the long term effects of HEV exposure, but there's no doubt about prolonged screen time causing eye strain. We asked Dr. Heiting for some advice and this is what he recommends:

1. Maintain a comfortable working distance at the computer (close to arm's length from the screen) and avoid hunching closer and closer.
2. When using a phone keep the screen as far away from your eyes as comfortably possible — the greater the distance your phone is from your eye, the less eye strain it is likely to cause — provided the print size and images are large enough for comfortable viewing.
3. Every 20 minutes, take a 20-second break and look off into the distance — at something 20 feet away. This is called the “20-20-20 rule” by many eye care providers, and it relaxes the focusing muscle inside the eye, relaxes the muscles outside the eyes that converge the eyes (points them inward to stay aligned on near objects), and stimulates blinking to remoisten the surface of the eyes — all comforting things!

4. Get an eye exam. Even minor problems with your eyesight can increase your risk for digital eye strain. Also, ask your eye care professional about the best type of glasses for your digital viewing needs. You might benefit from eyewear specifically prescribed for computer or other digital device use.
5. Ask your eye care provider about glasses that block blue light. There are a number of brands of eyeglass lenses and coatings that can reduce your exposure to HEV light when using digital devices.
6. Make sure your eyeglass lenses (if you need them) have an anti-reflective (AR) coating. Eliminating reflections from your lenses can increase viewing comfort and reduce eye strain.
7. Go outside and play more!

Notes:

sedentary 座りがちの, obesity 肥満, anxiety disorder 不安障害,
irritable 過敏な, blurred ぼやけている, retina 網膜,
macular degeneration 緑内障, cross-eyed 斜視の, proximity 近接,
cumulative 累加する, blink 瞬きする, myopia 近視,
epidemic 病などがはびこっている, hunch (ing) 背を丸めて座る,
remoisten 再びうるおいをもたせる, prescribed 規定された,
anti-reflective coating 反射防止膜

[1] 下線部A, Bを日本語にきなさい。(解答用紙その2)

[2] 1～15の質問に対して英文の内容から判断し、最も適切だと思われるものを一つ選び、その番号をマークしなさい。(解答用紙その1)

1. What is NOT mentioned in the opening paragraph?
 - (1) We are becoming overweight.
 - (2) We are not exercising enough.
 - (3) We are not suffering from any mental disorders.
 - (4) We are looking at computer screens more than we used to.

2. According to Gary Heiting, what causes permanent eye damage?
 - (1) Looking at computer screens for too long.
 - (2) Experts are still not sure.
 - (3) Digital devices.
 - (4) Eye strain and discomfort.

3. What is NOT a sign of computer vision syndrome?
 - (1) Permanent mental damage.
 - (2) Pain in the back.
 - (3) Dry eyes.
 - (4) Vision problems.

4. What have nearly two out of three Americans experienced?
 - (1) Long-term eye damage.
 - (2) Daily use of electrical devices.
 - (3) Eye strain.
 - (4) Strain in their hands.

5. Why is staring at smartphones or tablet screens bad for us?
- (1) The blue light could harm our eyes.
 - (2) They damage our eyes permanently.
 - (3) HEV light causes permanent damage to our eyes.
 - (4) HEV light is visible to us.
6. Why are many eye care providers concerned about the effects of HEV light?
- (1) HEV light is emitted by electronic devices.
 - (2) Animal testing has not been conducted.
 - (3) It is the leading cause of vision loss in adults.
 - (4) It can cause damage similar to macular degeneration.
7. Which of the below does NOT emit blue light?
- (1) The sun.
 - (2) Smartphones.
 - (3) LED light bulbs.
 - (4) Movie theater screens.
8. What affects the amount of HEV light exposure?
- (1) Screen size.
 - (2) Distance from the screen.
 - (3) Time spent staring at the screen.
 - (4) Choices (1), (2) and (3).
9. When staring at screens, what do people tend to do less of?
- (1) Get tired.
 - (2) Blink.
 - (3) Open their eyelids.
 - (4) Focus on the screen.

10. The average American aged 16-44 spends
- (1) more time using computers than watching TV.
 - (2) 7.4 hours a day staring at computer screens.
 - (3) less time using smartphones than computers.
 - (4) almost as much time staring at screens as many Americans do sleeping.
11. Who spends more than 9 hours a day staring at screens?
- (1) All adults.
 - (2) A third of adults.
 - (3) Americans aged 25-54.
 - (4) 26% of Americans born between 1946 and 1996.
12. What is one piece of advice that Dr. Heiting does NOT give?
- (1) Sit at arm's length from the computer screen.
 - (2) Keep smartphone screens away from your eyes.
 - (3) Take a 20-second break every minute.
 - (4) Get your eyes tested.
13. What does "it" refer to?
- (1) Smartphone.
 - (2) Back pain.
 - (3) A 2015 report from The Vision Council.
 - (4) Digital eye strain.

14. What does "hours on end" mean?

- (1) Until the end of the day.
- (2) A long period of time.
- (3) The time being.
- (4) Until we finish the job.

15. What does "kicks in" mean?

- (1) Hurts you.
- (2) Wakes you up.
- (3) Takes effect.
- (4) Ends.

2

以下のそれぞれの定義に従って、最初と最後の文字が与えられた最も適切な単語を書きなさい。ただし、1下線に1文字が入る。(解答用紙その2)

(解答例)

someone who is trained in science, especially someone whose job is to do scientific research

⇒(s _____ t)

正解(scientist)

1. a substance that is used in treating disease or relieving pain and that is usually in the form of a pill or a liquid

⇒(m _____ e)

2. information, understanding, or skill that you get from experience or education

⇒(k _____ e)

3. a person who helps create or develop new ideas, methods

⇒(p _____ r)

4. a level of quality, achievement, etc., that is considered acceptable or desirable

⇒(s _____ d)

5. careful study that is done to find and report new knowledge about something

⇒(r _____ h)

6. the quality or state of being physically strong

⇒(s _____ h)

7. not supporting either side of an argument, fight, war, etc.

⇒(n _____ l)

8. a length of time during which a series of events or an action takes place or is completed

⇒(p _____ d)

9. a condition or fact that affects a situation

⇒(c _____ e)

10. the conditions and influences that affect the growth, health, progress, etc., of someone or something

⇒(e _____ t)

3

下線部に最も適切だと思われるものを一つ選び、その番号をマークしなさい。

(解答用紙その1)

16. I wouldn't _____ so far as to say that computers will replace teachers
in the near future.

- (1) up
- (2) give
- (3) over
- (4) go

17. If you don't _____ up for your rights, no one else will.

- (1) put
- (2) stand
- (3) make
- (4) catch

18. We discussed the matter _____ tea and cake.

- (1) at
- (2) above
- (3) under
- (4) over

19. No sooner had we sat down _____ we found it was time to go.

- (1) for
- (2) because
- (3) than
- (4) as

20. The conditions _____ the laborers in this country work are very bad.

- (1) of which
- (2) under which
- (3) to which
- (4) which

21. _____ we had left ten minutes earlier!

- (1) Hope
- (2) Unless
- (3) If only
- (4) I wonder

22. So far he has written two novels, the second of which is _____.

- (1) as far the better
- (2) by far the better
- (3) as far the best
- (4) by far the best

23. I apologize for not _____ to your e-mail immediately.

- (1) to reply
- (2) have replied
- (3) replying
- (4) to have replied

24. Events _____ with a red pen are mandatory, so please review the entire schedule below.

- (1) marking
- (2) marked
- (3) to mark
- (4) to be marking

25. Please look at the _____ chart.

- (1) following
- (2) followed
- (3) attaching
- (4) attachment

26. I _____ rather talk to him face to face than write an e-mail.

- (1) would
- (2) should
- (3) could
- (4) might

27. Please check the school calendar, _____ you can find information on special events.

- (1) when
- (2) which
- (3) where
- (4) that

28. If you still have a headache, you should _____ a doctor.

- (1) watch
- (2) see
- (3) look at
- (4) view

29. The boys fled _____ all directions at the sight of a snake.

- (1) in
- (2) to
- (3) for
- (4) by

30. The stadium _____ construction will be completed on schedule.
- (1) under
 - (2) above
 - (3) in
 - (4) on
31. My grandfather tells me the same old story time _____ time.
- (1) before
 - (2) after
 - (3) in
 - (4) on
32. The researcher was angry because the results of the experiments were not _____ with his hypothesis.
- (1) conscious
 - (2) concrete
 - (3) consistent
 - (4) convenient
33. As the university admits a mere 60 students each year, _____ the best of the best can get in.
- (1) also
 - (2) even
 - (3) only
 - (4) quite

34. The success of the project will require the _____ effort of all students.

- (1) combination
- (2) combine
- (3) combined
- (4) combining

35. Today our lecturer will talk about how to set _____ funds for the future.

- (1) aside
- (2) forth
- (3) in
- (4) on

4

次の会話文を読んで、以下の問いに答えなさい。

Tina: What are your plans for the summer, Koji?

Koji: That's a (36). I'm still trying to decide.

Tina: You told me you were going to get a part-time job or study abroad.

Koji: You have a good memory. I need to start looking into these options soon.

Tina: I suggest you speak to Aya because she studied in Canada last summer. She also works for a café nearby, so she can tell you the (37) of working part-time.

Koji: That's awesome! Thanks for that tip. I'll (38) to speak to her. How about yourself?

Tina: Glad you asked. I'll be in China to see my cousin.

Koji: Great! You must be excited. Will this be your first time to China?

Tina: Well, actually, I went there when I was about five, but I don't remember (39).

Koji: I see, but this will be a great chance for you to (40) your cousin.

[1] 下の選択肢1～0の中から、上の空欄36～40に最も適切だと思われるものを一つ選び、その番号をマークしなさい。(解答用紙その1)

- | | |
|------------------|----------------|
| 1. ins and outs | 6. get to know |
| 2. get along | 7. run around |
| 3. good question | 8. a thing |
| 4. top to bottom | 9. work out |
| 5. memories | 0. make sure |

[2] 次の文で、会話文の内容と一致するものは1を、一致しないものは2を
マークしなさい。(解答用紙その1)

41. Koji has decided what he is going to do during the summer.
42. Tina remembered what Koji had said about his summer plans.
43. Aya is going to work at a café this summer.
44. Tina is going to China this summer.
45. Tina remembers meeting her cousin in China.

5

次の日本語の文を表す英文を、与えられた語句を用いて完成させた場合、2番目と4番目になる語句を番号で答えなさい。(解答用紙その1)

46. 少なくとも休みを取る2週間前に文書にて報告する義務があります。

You are required
2番目 4番目
of work.

- ① in writing ② taking time off ③ to give ④ a notice
⑤ two weeks before ⑥ at least

- 1) ⑤-③ 2) ①-④ 3) ④-⑥ 4) ⑥-⑤

47. このヨーロッパ旅行は私が期待していたものとはまったく違うものだった。

This trip
2番目 4番目

- ① I had expected ② totally different ③ what ④ from ⑤ was
⑥ to Europe

- 1) ②-③ 2) ⑤-④ 3) ③-⑥ 4) ①-②

48. 次の駅で下車する前に自分の身の回りの物を確認するように。

Be sure at the
2番目 4番目
next stop.

- ① before ② to check ③ the train ④ you ⑤ your belongings
⑥ get off

- 1) ⑥-① 2) ⑤-④ 3) ③-④ 4) ①-②

49. 彼の運転はかなり無謀だから、いつかきっと事故にあうだろう。

He is someday.
2番目 4番目

- ① an accident ② such ③ that ④ a reckless driver
⑤ he will probably ⑥ have

- 1) ③-① 2) ①-⑥ 3) ⑥-② 4) ④-⑤

