

*Ixtisoslashtirilgan maktablarga kiruvchi o'quvchilar uchun*

## TEST SAVOLLAR KITOBI

### DIQQAT!

Test topshiriqlarini yechishdan avval savollar kitobini varaqlab, unda matematikadan 20 ta, fizikadan 10 ta va ingliz tilidan 10 ta savol mavjudligini tekshiring. Agar savollar soni kamligi aniqlansa, darhol kuzatuvchiga ma'lum qiling.

#### FANLAR:

Blok1: Matematika

Blok2: Fizika

Blok3: Ingliz tili

**Toshkent 2022-y**

1.  $a$  parametrning qanday qiymatlarida  $(a - 16)x^2 + ax + 25 = 0$  kvadrat tenglama ikkita o'zaro teng haqiqiy ildizlarga ega bo'ladi?
- (a) 16; 20; 80  
 (b) 20; 80  
 (c) 16; 20  
 (d) 16
5.  $b$  ning qanday qiymatlarida  $y = 5 - 2b - 2x$  va  $y = 5 - 2b + 6x$  to'g'ri chiziqlarning kesishish nuqtasi  $Ox$  o'qida yotadi?
- (a) -2,5  
 (b) 5  
 (c) 2,5  
 (d) -5

2. O'tkir burchagi  $B$  bo'lgan  $ABCD$  parallelogram  $A$  uchidan  $CD$  tomoniga  $AK$  balandlik tushirilgan.  $AK = 0,5AD$  bo'lsa, bu parallelogramning  $A$  va  $B$  burchaklari kattaliklarini toping.

- (a)  $150^\circ$  va  $30^\circ$   
 (b)  $135^\circ$  va  $45^\circ$   
 (c)  $45^\circ$  va  $135^\circ$   
 (d)  $30^\circ$  va  $150^\circ$

3. Quyidagi tengliklarning to'g'ri(T) yoki noto'g'ri(N) ekanligini aniqlang va ketma-ketligi to'g'ri berilgan javob variantni aniqlang.

tengliklar	T	N
1 $\frac{a}{\sqrt{b}} = -\sqrt{\frac{a^2}{b}}$		
2 $(a - b)^{88} = -(b - a)^{88}$		
3 $a^3 - 125 = (a - 5)(a^2 + 10a + 25)$		
4 $\frac{x^2 - 49}{x - 7} = 0$ tenglama ildizi $x = -7$ bo'ladi.		

- (a) 1- noto'g'ri; 2- noto'g'ri; 3- noto'g'ri; 4- to'g'ri  
 (b) 1- to'g'ri; 2- to'g'ri; 3- noto'g'ri; 4- noto'g'ri  
 (c) 1- to'g'ri; 2- noto'g'ri; 3- noto'g'ri; 4- to'g'ri  
 (d) 1- to'g'ri; 2- noto'g'ri; 3- noto'g'ri; 4- noto'g'ri

4. 15 ta g'isht va 5 ta shlakoblok massasi 64 kg. Agar 5 ta g'isht massasi 2 ta shlakoblok massasidan 3 kg og'ir bo'lsa, har bir g'isht va shlakoblok massasini aniqlang.

- (a) 2,6 kg va 5 kg  
 (b) 2,6 kg va 4 kg  
 (c) 2,5 kg va 5 kg  
 (d) 2,5 kg va 4 kg

6. Quyidagi mulohazalardan to'g'ri yoki noto'g'riligi ketma-ketligi keltirilgan to'g'ri ko'rsatilgan javob variantini aniqlang:

	mulohazalar	T	N
1	Qavariq $n$ burchak barcha ichki burchaklari yig'indisi $180^\circ \cdot (n - 1)$ ga teng.		
2	Parallelogramm yuzi diagonal va uchidan shu diagonalga tushirilgan perpendikulyar kesma ko'paytmasining ikkilanganiga teng bo'ladi.		
3	Trapetsiya diagonalari o'zaro perpendikulyar bo'lsa, bu trapetsiya yuzi o'zining balandligi kvadratiga teng bo'ladi.		
4	Romb diagonalari kesishuvidan hosil bo'lgan uchburchaklar o'zaro teng bo'ladi.		

- (a) 1 - to'g'ri, 2 - to'g'ri, 3 - noto'g'ri, 4 - to'g'ri  
 (b) 1 - noto'g'ri, 2 - to'g'ri, 3 - to'g'ri, 4 - noto'g'ri  
 (c) 1 - noto'g'ri, 2 - to'g'ri, 3 - noto'g'ri, 4 - to'g'ri  
 (d) 1 - noto'g'ri, 2 - noto'g'ri, 3 - to'g'ri, 4 - to'g'ri

7. Namangandan Toshkentgacha masofa 300 km. Namangandagi bekatdan avval Lada avtomashinasi yo'lga chiqdi, oradan 2 soat o'tgach o'sha bekatdan Nexia avtomobili yo'lga chiqdi va ikki avtomobil bir vaqtda Toshkentga yetib keldi. Agar ularning o'rtacha tezliklari orasidagi farq 40 km/h bo'lsa, Nexia avtomobilining tezligini toping.

- (a) 80 km/h  
 (b) 60 km/h  
 (c) 100 km/h  
 (d) 75 km/h

8. Tenglamaning haqiqiy ildizlari yig'indisini toping:

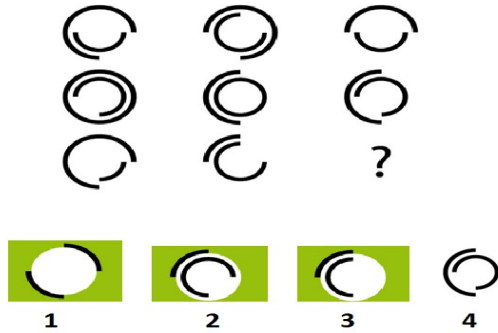
$$\frac{3}{x^2 - 9} - \frac{1}{9 + 6x + x^2} = \frac{3}{2x^2 + 6x};$$

- (a) -24  
(b) 12  
(c) 24  
(d) -12

9. Yo'lovchi harakatlanayotgan eskalatoridan yurib 11 sekundda, to'xtab tursa, 33 sekundda pastga tushadi. U tinch turgan eskalatoridan o'sha tezlik bilan yursa, necha sekundda pastga tushadi?

- (a) 12  
(b) 18  
(c) 16,5  
(d) 24

10. .



- (a) 4  
(b) 2  
(c) 1  
(d) 3

11. Tengsizliklar sistemasini yeching:

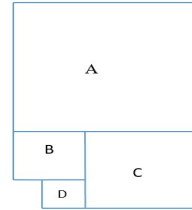
$$\begin{cases} (x-2)(x+6) < (x+2)^2 \\ (x+1)(x-4) \geq (x-3)(x+2) \end{cases}$$

- (a)  $(-\infty; \infty)$   
(b)  $\emptyset$   
(c)  $[1; \infty)$   
(d)  $(-\infty; 1]$

12. Hisoblang:  $\frac{9}{5-\sqrt{7}} + \frac{22}{7+\sqrt{5}} - \frac{1}{\sqrt{7}+\sqrt{5}}$  ;

- (a) 5  
(b) 6  
(c) 3  
(d) 8

13. To'rtta kvadrat o'ng tomonda tasvirlanganidek joylashtirilgan. Bu tasvirdagi A kvadratning yuzi 64 ga, C kvadratning yuzi 25 ga teng bo'lsa, D kvadrat perimetrini toping.



- (a) 4  
(b) 6  
(c) 8  
(d) 4,8

14.  $ABCD$  parallelogrammda  $\overline{CA} = \vec{a}$  va  $\overline{CD} = \vec{b}$  bo'lsa,  $\overline{BD}$  vektorni  $\vec{a}$  va  $\vec{b}$  vektorlar orqali ifodalang.

- (a)  $2\vec{b} + \vec{a}$   
(b)  $2\vec{b} - \vec{a}$   
(c)  $\vec{b} + \vec{a}$   
(d)  $\vec{b} - 2\vec{a}$

15. Yuzy 240  $cm^2$  bo'lgan parallelogramm tomonlari 3:5 nisbatda bo'lib, uning katta balandligi 25 cm bo'lsa, parallelogramm katta tomoni uzunligini toping.

- (a) 20 cm  
(b) 16 cm  
(c) 25 cm  
(d) 32 cm

16. To'g'ri burchakli trapetsiyada  $\angle A = \angle B = 90^\circ$ .  $AD = 40$  cm,  $AB = 20$  cm,  $CD = 25$  cm bo'lsa, bu trapetsiya yuzini toping.

- (a)  $680cm^2$   
(b)  $640cm^2$   
(c)  $650cm^2$   
(d)  $576cm^2$

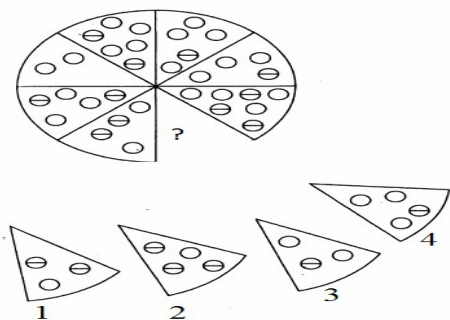
17.  $ABC$  uchburchakda  $\angle A = 60^\circ$ ,  $\angle B = 30^\circ$  va  $CD$  balandlik. Agar  $CD = 6$  cm bo'lsa,  $AC$  katet uzunligini toping.

- (a) 12
- (b)  $6\sqrt{3}$
- (c) 9
- (d)  $4\sqrt{3}$

18. Katetlari uzunliklari 15 cm va 20 cm bo'lgan to'g'ri burchakli uchburchak yuzi va gipotenuzasiga tushirilgan balandligi topilsin.

- (a) )  $S = 300 \text{ cm}^2$ ;  $h_c = 24 \text{ cm}$
- (b)  $S = 300 \text{ cm}^2$ ;  $h_c = 12 \text{ cm}$
- (c)  $S = 150 \text{ cm}^2$ ;  $h_c = 12 \text{ cm}$
- (d)  $S = 150 \text{ cm}^2$ ;  $h_c = 24 \text{ cm}$

19. .

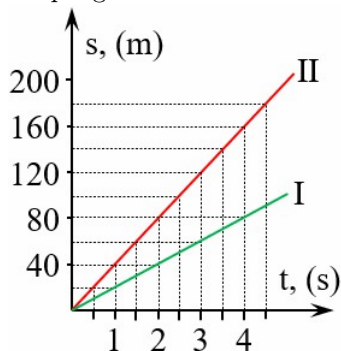


- (a) 4
- (b) 3
- (c) 1
- (d) 2

20. 3 ta aylananing har biri qolgan aylanalarning har biri bilan kesishib, tekislikni nechta qismga ajratadi?

- (a) 9
- (b) 6
- (c) 8
- (d) 7

21. Rasmdagi grafik ikki avtomobilning shaharlar orasidagi yo'lda harakatlanishlarini masofa-vaqt grafigidir. Grafikni tahlil qilib, avtomobillarning tezliklari necha m/s ga farq qilishini aniqlang.



- (a) Tezliklari teng, faqat II avtomobil ko'p yo'l yurgan
- (b) Tezliklari teng, faqat I avtomobil kam vaqt harakatlangan
- (c) I avtomobil tezligi 20 m/s ga katta
- (d) I avtomobil tezligi 20 m/s ga kichik

22. Prujina 7 N kuch ta'sirida 0,04 m ga cho'zildi. Prujinaning bikrligini aniqlang (N/m).

- (a) 184
- (b) 175
- (c) 140
- (d) 150

23. Richagning kichik elkasiga 300 g yuk, katta elkasiga 20 g yuk osilgan. Kichik elkaning uzunligi 5 cm. Richagning uzunligini aniqlang (m).

- (a) 7,5
- (b) 1,2
- (c) 0,8
- (d) 0,3

24. Havodagi og'irligi 2,26 N bo'lgan jismning suvdagi og'irligi 2,06 N ga teng. Shu jismning zichligini aniqlang ( $kg/m^3$ ).  $\rho_{suv} = 1000 \text{ kg/m}^3$ . Havodagi Arximed kuchini hisobga olmang.

- (a) 11300
- (b) 1130
- (c) 113
- (d) 11,3

25. Odam ko'zguga 1 m/s tezlik bilan yaqinlashmoqda. Uning tasviri odamga qanday tezlik bilan yaqinlashadi (km/h)?
- (a) 7,2  
(b) 3,6  
(c) 1,8  
(d) 5,4
26. Normal sharoitda gazlarda tovushning tarqalish tezligi intervali qaysi javobda to'g'ri keltirilgan?
- (a) 3000–4000 m/s  
(b) 300–400 m/s  
(c) 1000–2000 m/s  
(d) 500–1000 m/s
27. Musbat (+) zaryadli elektroskopning metal sharchasiga K jism tekkazilganida yaproqlar biroz yopiladi. K jismning zaryadi bilan bog'liq quyidagi fikrlardan qaysi biri yoki qaysilari to'g'ri?
- I. Musbat (+) zaryadli bo'lishi mumkin  
II. Manfiy (–) zaryadli bo'lishi mumkin  
III. Neytral bo'lishi mumkin
- (a) I, II va III  
(b) Faqat II  
(c) I va II  
(d) Faqat I
28. Massasi 65 g bo'lgan metall simning qarshiligi 1,6  $\Omega$ . Simning diametrini 1 mm bo'lsa, uning zichligini hisoblang ( $kg/m^3$ ). Metallning solishtirma qarshiligini 0,12  $\mu\Omega \cdot m$ ,  $\pi^2=10$  deb oling.
- (a) 7800  
(b) 2700  
(c) 11300  
(d) 8900
29. Sirti 100  $cm^2$  bo'lgan temir qoshiqni qalinligi 80  $\mu m$  bo'lgan kumush bilan qoplash uchun kumush tuzi eritmasi orqali qanday (C) zaryad o'tkazish kerak? Kumush zichligi 10,5 $\cdot 10^3$   $kg/m^3$  ga, elektrokimyoviy ekvivalenti 1,12 $\cdot 10^{-6}$   $kg/C$  ga teng.
- (a) 7550  
(b) 750  
(c) 75000  
(d) 7500
30. 30 cm uzunlikdagi o'tkazgich induksiyasi 0,6 T bo'lgan magnit maydonining induksiya chiziqlariga tik joylashgan. O'tkazgich ko'ndalang kesim yuzasidan bir minutda 80 C zaryad oqib o'tadi. Magnit maydon tomonidan o'tkazgichga qanday kuch ta'sir qiladi (N)?
- (a) 0,12  
(b) 0,08  
(c) 0,16  
(d) 0,24

31. Read the text and answer the questions.

So the long hot summer is over and it's time to get down to some hard work again. We asked three young people what they expect from the new school year.

Olga, 13, says, 'I had a great summer and for three weeks I was in England doing an English course so I think I'm ready to do well in this subject this year. I also have private lessons with an American teacher and she helps me a lot, especially with speaking. Of course, I have many other lessons that I'm not so good at, but English is definitely my favourite because our teacher at school last year made everything fun - even grammar! I hope we have the same teacher this year.'

Ivan, 14, says, 'Well, what I like best is computer studies because I think I'm quite good at it and I know a bit about how computers work. I spend a lot of time playing computer games at home, but I hope this year I'll learn how to make programs and find out more about computer languages. My dad works in IT and he helps me with this subject. I'm not so good at some other subjects, but I'm going to try hard this year. My marks were not the best before the summer and I want to improve.'

Irina, 13, says, 'I'm not really looking forward to school this year. OK, it'll be great to see all my friends again after the long break, and most of the teachers, but I've already decided what I want to do as a career and school doesn't help me with that. I plan to be a musician - I play the piano and the guitar, so I concentrate on my music lessons outside school and practice during my free time. I just hope all the lessons I have to do at school will be more interesting than last year.' Find the synonym to the word "IMPROVE".

- (a) blow
- (b) make
- (c) decline
- (d) progress

32. Find the antonym to the word "PRIVATE".

- (a) inside
- (b) public
- (c) pricey
- (d) personal

33. Find the alternative meaning.

"I'm not so good at some other subjects."

- (a) He doesn't know any subjects.
- (b) He doesn't have enough skills at some other subjects.
- (c) He is good at other subjects.
- (d) He knows all other subjects except computer.

34. Find the answer to the definition.

"Something means to be pleased or excited that it is going to happen."

- (a) looking forward to
- (b) to improve
- (c) good at
- (d) concentrate on

35. Find the correct Passive.

"We asked three young people what they expect from the new school year."

- (a) Three young people were asked what they expect from the new school year.
- (b) Three young people is asked what they expect from the new school year.
- (c) Three young people are asked what they expect from the new school year.
- (d) Three young people was asked what they expect from the new school year.

36. Choose the right answer.

The statement: "she helps me a lot, especially with SPEAKING."

The word in capital letters is вЂђББББ.

- (a) The Present Continuous
- (b) The Past Continuous
- (c) The Present simple
- (d) The Gerund

37. Choose the suitable word to the definition.  
"To direct your attention or your efforts toward a particular activity, subject, or problem."
- (a) learn
  - (b) spend
  - (c) concentrate
  - (d) hope
38. Find only True statements.
- 1 Olga is looking forward to her English lessons at school.
  - 2 Ivan says he knows more than his teacher about computers.
  - 3 Ivan doesn't care about his grades.
  - 4 Irina thinks her school lessons will be useful for her future.
  - 5 Irina wants a better school experience this year.
- (a) 1, 4
  - (b) 2, 4
  - (c) 1, 5
  - (d) 1, 3, 5
39. Read the text and choose the right answer to the question.  
Who did go to the other country in this holiday?
- (a) Olga
  - (b) No answer
  - (c) Ivan
  - (d) Irina
40. Read the text and choose the right answer to the question.  
Whose father does help with the school subject?
- (a) No answer
  - (b) Irina's
  - (c) Olga's
  - (d) Ivan's