



# OLIY MAK TAB

NODAVLAT TA'LIM MUASSASASI

## YUQORI MALAKALI MUTAXASSISLAR TOMONIDAN TUZILGAN DIAGNOSTIK SINOV TEST SAVOLLAR KITOBI

### ABITURIYENT DIQQATIGA!

HURMATLI ABITURIYENT! USHBU VARIANTNI MUSTAQIL ISHLANG, KAMCHILIKLARINGIZNI ANIQLAB BARTARAF QILING. VARIANT SAVOLLARI SIZNING BILIMINGIZNI VA TAJRIBANGIZNI YANADA OSHIRADI. VARIANTNING TO'G'RI JAVOBLARINI *oliymaktab.uz* SAYTI ORQALI BILIB OLING.

### *OLIY MAK TAB*

*2018 YIL 20 – AVGUSTDAN 20 – SENTYABRGACHA  
ABITURIYENTLARNI O'QISHGA QABUL QILADI. O'QISHGA QABUL QILISH FAQAT IMTIHON ASOSIDA OLIB BORILADI. IMTIHON OCHIQ VA YOPIQ TEST HAMDA OG'ZAKI SHAKLDA BO'LADI.  
ABITURIYENTNI ILMLI, SALOHIYATLI VA TAJRIBALI QILISH 100% KAFOLATLANADI.*

***OLIY MAK TAB – OLIY MAQSAD! SIZ UCHUN ENG TO'G'RI TANLOV!***

Ustoz va abituriyentlar savollarga nisbatan hurmatda bo'ling!

**Kitob tipi: 50**

#### FANLAR:

*Blok 1: Matematika (Informatika bilan)*

*Blok 2: Fizika*

*Blok 3: Ingliz tili*

#### OLIY MAK TAB

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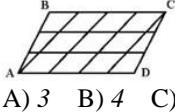
*+99894 544 09 09*

Savollar kitobi raqami: **8271788**

Toshkent — 2018

### MATEMATIKA (INFORMATIKA BILAN)

1.  $\overline{aabb}$  (a va b raqamlar) to‘rt xonali son qandaydir biror sonning kvadrati bo‘lsa, a – b ayirmani toping.  
A) 5 B) 3 C) 6 D) 1
2. Uchburchakning asosi 200 bo‘lakka bo‘lingan. Asosini bo‘laklarga bo‘lgandagi nuqtalar bilan uchburchakning uchi birlashtirilsa natijada nechta uchburchak hoslil bo‘ladi?  
A) 19900 B) 20000 C) 20100 D) 20200
3.  $a_1 = 1$  va  $a_{2n} = n \cdot a_n$  shartlarni qanoatlantiruvchi  $a_1, a_2, a_3, \dots$  ketma – ketlik berilgan. Bu ketma – ketlikning  $a_{2^{100}}$  hadi nechaga teng?  
A)  $2^{4950}$  B)  $2^{5000}$  C)  $2^{5025}$  D)  $2^{5050}$
4.  $10x^2 - 7x + 1 = 0$  tenglamaning ildizlari  $\cos\alpha$  va  $\cos\beta$  bo‘lib,  $\alpha, \beta$  lar 4 – chorakda bo‘lsa,  $\cos(\alpha + \beta)$  ni toping.  
A)  $\frac{1-6\sqrt{2}}{10}$  B)  $\frac{6\sqrt{2}-1}{10}$  C)  $\frac{1-\sqrt{3}}{5}$  D)  $\frac{\sqrt{3}-1}{5}$
5. a, b va c lar uchun quyidagi shart  $\frac{a-b}{1+ab} + \frac{b-c}{1+bc} + \frac{c-a}{1+ac} = 0$  bajarilsa,  $\frac{a+4b}{c}$  ning qiymatini toping.  
A) 6 B) 4 C) 5 D) aniqlab bo‘lmaydi
6.  $\log_3(3^x - 8) = 2 - x$  tenglamaning ildizlari ko‘paytmasini toping.  
A) 0 B) 2 C) 1 D) 1/3
7. Bu cheksiz zanjirli kasr  $2 + \frac{1}{4 + \frac{1}{4 + \frac{1}{4 + \frac{1}{4 + \dots}}}}$  quyidagi javoblardan qaysi biriga teng?  
A)  $\sqrt{5}$  B)  $\sqrt{3}$  C)  $\sqrt{2}$  D) aniqlab bo‘lmaydi
8. Agar  $x = \sqrt[3]{\frac{A+\sqrt{B}}{A-\sqrt{B}}} + \sqrt[3]{\frac{A-\sqrt{B}}{A+\sqrt{B}}}$  bo‘lsa,  $x^3 - 3x - 2 \frac{A^2+B}{A^2-B}$  ifodaning qiymatini toping.  
A) A+B B) 0 C) 2A D) 2B
9.  $\begin{cases} (x+y)^4 + 4(x+y)^2 = 117 \\ x-y = 25 \end{cases}$  agar sistemaning (x; y) juftlikdagi yechimlarini dekart koordinatasidagi nuqtalar deb faraz qilsak, bu nuqtalar orasidagi masofani toping.  
A)  $3\sqrt{2}$  B) 3 C)  $2\sqrt{2}$  D)  $\sqrt{2}$
10.  $\frac{a^2 - 4 - |a-2|}{a^3 + 2a^2 - 5a - 6}$  ifodani soddalashtiring. ( $x \in (-1; 2)$ )  
A)  $\frac{1}{a+3}$  B)  $\frac{1}{a+1}$  C)  $\frac{1}{a-1}$  D)  $\frac{1}{a-3}$
11.  $f(x) = x^3 + 6x^2 + 12x + 6$  ga teng bo‘lsa,  $f(f(f(f(x)))) = 0$  tenglama nechta butun ildizga ega?  
A) 2 B) 0 C) 3 D) 1
12.  $\frac{(x-3)^4(x-2)^3x}{(x+1)^2(x+5)^7} > 0$  tengsizlikni qanoatlantiruvchi eng kichik manfiy butun sonni toping.  
A) -3 B) -4 C) -1 D) -5

13.  $1 + x + x^2 + x^3 + x^4 < 0$  tengsizlikni qanoatlantiruvchi manfiy butun sonlar nechta?  
A) 15 B) 55 C) 0 D) cheksiz ko‘p
14.  $1 - |\cos x| \leq \sin^2 x$  tengsizlik  $[0; \pi]$  oraliqda nechta yechimga ega?  
A) 5 B) 4 C) 8 D) cheksiz ko‘p
15.  $y = \frac{1}{\sqrt[5]{4^5 - x^5}}$  funksiyaning hosilasini toping.  
A)  $\frac{x^4}{\sqrt[5]{(4^5 - x^5)^5}}$  B)  $\frac{x^5}{\sqrt[5]{(4^5 - x^5)^6}}$  C)  $\frac{x^4}{\sqrt[5]{(4^5 - x^4)^6}}$   
D)  $\frac{x^4}{\sqrt[5]{(4^5 - x^5)^6}}$
16.  $f(x) = \frac{x}{\sqrt{1-x^2}}$  funksiyaning boshlang‘ich funksiyasini toping.  
A)  $F(x) = -\sqrt{1-x^2} + C$  B)  $F(x) = \sqrt{1-x^2} + C$   
C)  $F(x) = \sqrt{1+x^2} + C$  D)  $F(x) = -\sqrt{1+x^2} + C$
17. Yuzi 36 ga teng bo‘lgan ABCD parallelogramming AB va CD tomonlari teng 3 qismga, AD va BC tomonlari esa teng 4 qismga bo‘lindi. Bo‘linish nuqtalari quyidagi berilgan rasmdagi kabi tutashtirildi. Ushbu tutashtirish natijasida hoslil bo‘lgan kichik parallelogramlarning yuzalarini toping.
- 
- A) 3 B) 4 C) 2 D) 6
18.  $2 \cdot 2^{x-1} - 4^{x-1} = x^2 - x + 1$  tenglama nechta manfiy ildizga ega?  
A) 3 B) 1 C) 2 D) 0
19. ABC ( $C = 90^\circ$ ) to‘g‘ri burchakli uchburchakka CD balandlik o‘tkazilgan. ABC, ACD va CBD uchburchaklarga ichki chizilgan aylanalarning radiuslari mos ravishda 40, 32 va 24 ga teng bo‘lsa, uning CD balandligi uzunligini toping.  
A) 48 B) 96 C) 24 D) 12
20. Radiusi 1 ga teng bo‘lgan sharga muttzazam oltiburchakli prizma tashqi chizilgan bo‘lsa, prizmaning to‘la sirtini toping.  
A)  $12\sqrt{3}$  B)  $16\sqrt{3}$  C)  $6\sqrt{3}$  D)  $2\sqrt{3}$
21.  $\vec{a}(1; 1; 2)$  va  $\vec{b}(2; 1; 1)$  vektorlarga perpendikulyar bo‘lgan birlik vektorning koordinatalarini toping.  
A)  $(\frac{1}{\sqrt{11}}; \frac{-3}{\sqrt{11}}; \frac{1}{\sqrt{11}})$  B)  $(\frac{1}{\sqrt{10}}; \frac{-3}{\sqrt{10}}; 0)$  C)  $(\frac{1}{\sqrt{14}}; \frac{-3}{\sqrt{14}}; \frac{2}{\sqrt{14}})$   
D)  $(1; -1; 0)$
22. Kitob javonida 20 ta matematika va 5 ta fizika kitoblari mavjud bo‘lib, bu kitob javonidan 5 ta kitob tanlab olindi. Tanlab olingen kitoblar bir xil turda bo‘lishini necha xil usul bilan tanlash mumkin?  
A) 15504 B) 15505 C) 20500 D) 10005
23.  $y = \sqrt{-\log_{\frac{1}{6}}(-\frac{x+1}{7-2x})}$  funksiyaning aniqlanish sohasiga tegishli nechta tub son mavjud?  
A) 3 B) 2 C) 5 D) 4

24.  $\int_{-1}^1 \frac{x^7 - 3x^5 + 7x^3 - x}{\cos^2 x} dx$  integralni hisoblang.

- A) 2   B) -1   C) 1   D) 0

25. Teng yonli trapetsiyaning yuzi 10, asosidagi burchagi  $30^\circ$  teng. Trapetsiyaning perimetri eng kichik qiymatga ega bo'lishi uchun uning yon tomoni qanday bo'lishi kerak? A)  $\sqrt{30}$    B)  $\sqrt{20}$    C)  $\sqrt{40}$    D)  $\sqrt{36}$

26. 10 lik sanoq sistemasidagi toq sonlar barcha sanoq sistemalarida toqligini e'tiborga olib, [CBA;1000] oralig'idagi barcha toq sonlar yig'indisini toping.(Barcha sonlar 13 lik sanoq sistemasida qaraladi).

- A) 7C81   B) 7CC1   C) 8C76   D) 8B76

27. Quyida keltirilgan mulohazani inobatga olib, mantiqiy tenglamaning yechimlari sonini aniqlang.  
not X and A or Y = rost  
A = "Kontroller bu – dinamik xotira".

- A) 0   B) 2   C) 1   D) 3

28. Quyidagi html hujjat kodi yozilishi bo'yicha kataklar ketma-ketligi sanalganda nechachi katakda qalin shirift qo'llanilgan?

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<table style="width:100%"><tr><td>Firstname</td><td>Lastname</td><td><b>Age</b></td></tr><tr><td>Jill</td><td>Smith</td><td>50</td></tr><tr><td>Eve</td><td>Jackson</td><td>94</td></tr></table>
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- A) 6   B) 5   C) 4   D) 3

29. Agar A2 katakka " $=A1+B4$ " formulani B2 katakdagi nusxasi qanday bo'ladi?

- A)  $=B2+B5$    B)  $=B1+C4$    C)  $=B1+B4$    D)  $=A1+B5$

30. Paskalda ekranga chiqadigan natijani aniqlang:

```
var a,b: integer;s:real;
begin a:=2; s:=1; for b:=1 to 6 do s:=s+a*b;
writeln(s:5:2);readln; end.
```

- A) 43,00   B) 42,00   C) -63,00   D) 40,00

## FIZIKA

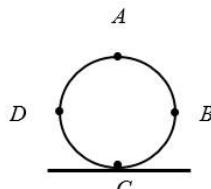
31. Shamolning tezligi 15 m/s bo'lganda, yomg'ir tomchisining tezligi 20 m/s ga teng bo'lidi. Agar shamolning tezligi 9 m/s ga teng bo'lsa, tomchining tezligi qanday bo'ladi? (m/s)

- A) 10   B) 16   C) 20   D) 25

32. Yo'lning birinchi yarmini avtomobil 70 km/soat tezlikda o'tdi. Yo'lning qolgan qismidagi vaqtning yarmida u 57 km/soat tezlik bilan harakatlandi, oxirgi qismini esa 48 km/soat tezlikda o'tdi. Avtomobilning butun yo'ldagi o'rtacha harakat tezligini aniqlang (km/soat).

- A) 60   B) 55   C) 46   D) 50

33. Gorizontal sirt bo'ylab radiusi 1 m bo'lgan g'ildirak sirpanishsiz g'ildiramoqda. Gildirak gardishidagi A nuqtanining yerga nisbatan tezligi 5 m/s bo'lsa, D nuqtanining yerga nisbatan tezligini (m/s) toping.  $\sqrt{2}=1,41$



- A) 3,5   B) 2,8   C) 1,4   D) 0,7

34. Jism 30 m/s tezlik bilan gorizontal otilganga, uning uchish uzoqligi otilish balandligiga teng bo'lди. U qanday balandlikdan otilgan (m)?  $g = 10 \text{ m/s}^2$

- A) 225   B) 180   C) 450   D) 125

35. 10 kg massali jism silliq gorizontal sirt bo'ylab gorizontga  $60^\circ$  burchak ostida yo'nalgan 60 N kuch ta'sirida harakatlantirilmoqda. Jismning tezlanishini ( $\text{m/s}^2$ ) toping.

- A) 4   B) 0,5   C) 3   D) 1

36. Qo'zg'almas o'qqa ega bo'lgan blok orqali o'tkazilgan ip blokning bir tarafidan kichik tirkish ichidan o'tadi. Ip doimiy tezlanish bilan harakatlanganda tirkish tomonidan unga 2 N ishqalanish kuchi ta'sir qiladi. Iping uchlariga 200 g va 800 g massali yuklar osilgan. Yuklarning tezlanishini ( $\text{m/s}^2$ ) toping.  $g = 10 \text{ m/s}^2$

- A) 3   B) 8   C) 5   D) 4

37. Raketa parvozining ikkinchi bosqichida uning orqa qismi ajralib qoldi, natijada uning tezligi 20% ga oshdi. Ajralgan qismning og'irligi raketa boshlang'ich og'irligining 1/4 qismini tashkil etgan bo'lsa, ajralgan qism qanday tezlik bilan harakatlanadi ( $\text{m/s}$ )? Raketening boshlang'ich tezligi 160 m/s ga teng bo'lgan.

- A) 58   B) 64   C) 80   D) 128

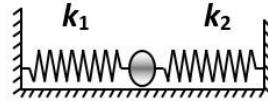
38. Kichik jism 3,6 m radiusli "o'lik sirtmoq" ga silliq tarzda ulanib ketuvchi qiya tekislikdan sirpanib tushadi. Butun halqadan muvaffaqiyatli o'tish uchun jism qanday minimal balandlikdan sirpanib tushishi kerak? (m) Balandlik halqaning pastki nuqtasidan hisoblanadi. Ishqalanish inobatga olinmasin.

- A) 7,2   B) 9   C) 12   D) 4,6

39. Massasi 1,2 kg, zichligi  $1800 \text{ kg/m}^3$  bo'lgan jism suyuqlik solingen idish tubida yotibdi. Idish vertikal yuqoriga  $4 \text{ m/s}^2$  tezlanish bilan ko'tarilmoqda. Jismni idish tubiga beradigan bosim kuchini toping. Suyuqlik zichligi  $900 \text{ kg/m}^3$ ,  $g = 10 \text{ m/s}^2$ .

- A)  $16,8 \text{ N}$    B)  $8,4 \text{ N}$    C)  $10,8 \text{ N}$    D)  $6,4 \text{ N}$

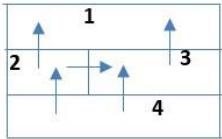
40. Massasi 120 g bo'lgan sharcha bikrili 5 N/m va 7 N/m bo'lgan prujinalarga rasmida ko'rsatilganidek mahkamlangan holda tebranma harakat qilmoqda. Tebranish amplitudasi 3 sm. 628 ms vaqt ichida sharchaning o'tgan yo'li necha sm bo'ladi? Qarshilik va ishqalanish kuchlarini e'tiborga olmang.



- A) 8   B) 9   C) 12   D) 15

41. To'rtta metal brusok rasmida ko'rsatilganidek bir biriga zinch qilib joylashtirilgan. Strelkalar yordamida issiqlik o'tkazilishi

ko'rsatilgan. Shu paytda brusoklar haroratlari quyidagiga teng  $100^\circ\text{C}$ ,  $80^\circ\text{C}$ ,  $60^\circ\text{C}$  va  $40^\circ\text{C}$ . Brusoklarning qaysi birining harorati  $100^\circ\text{C}$  ga teng?



- A) 1 chiniki B) 2 chiniki C) 3 chiniki D) 4 chiniki

42. Agar ochiq idishdagи havoni  $7^\circ\text{C}$  dan  $112^\circ\text{C}$  gacha qizdirilsa, uning massasi necha grammga kamayadi? Havoning boshlang'ich massai 385 g.
- A) 105 B) 102 C) 109 D) 97

43. Plastilin shar gorizontga nisbatan  $45^\circ$ burchak ostida  $40\text{ m/s}$  tezlik bilan otiladi. Otish nuqtasidan  $40\text{ m}$  masofada (gorizontal bo'yicha) vertikal devor joylashgan. Agar shar devorga yopishib qolsa, u necha gradusga (K da) qiziydi? Sharning to'liq kinetik energiyasi o'zini qizdirishga ketgan deb hisoblang. Plastilining solishtirma issiqlik sig'imi  $250\text{ J}/(\text{kg}\cdot\text{K})$ .  $g = 10\text{ m/s}^2$ .
- A) 4,7 B) 1,8 C) 3,2 D) 2

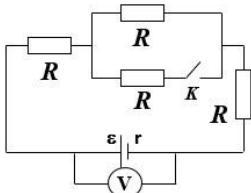
44. Sovun pufakchasing radiusini  $4\text{ sm}$  dan  $6\text{ sm}$  gacha kattalashirish uchun qanday ish bajarish kerak bo'ladi ( $\text{mJ}$ )? Sovun eritmasining sirt taranglik koefitsiyenti  $0,04\text{ N/m}$  ga teng.
- A) 4 B) 2 C) 5 D) 1,6

45.  $5\text{q}$ ,  $5\text{q}$  va  $10\text{q}$  nuqtaviy zaryadlar bir to'g'ri chiziqda ketma-ket, bir-biridan bir xil masofada joylashgan. O'rtadagi zaryadga  $8\text{ N}$  kuch ta'sir qiladi.  $10\text{ q}$  zaryadga qanday kuch ta'sir etadi.
- A) 76 B) 38 C) 42 D) 20

46. Elektr sig'imi  $C_1 = 4\text{ mkF}$ ,  $C_2 = 1\text{ mkF}$  va  $C_3 = 2\text{ mkF}$  ga teng bo'lgan kondensatorlar  $14\text{ V}$  kuchlanish manbaiga ketma-ket ulangan. Birinchi kondensator qoplamlari orasidagi potensiallar farqini toping (V).
- A) 2 B) 4 C) 6 D) 3

47. Erkin elektronlar konsentrasiyasi  $1,2 \cdot 10^{22}\text{ sm}^{-3}$  ga teng bo'lgan o'tkazgichdagi tok zichligi  $160\text{ mA/sm}^2$  ga teng. Tok tashiyotgan elektronlar  $20\text{ minut}$  ichida qanday masofaga siljydi ( $\text{sm}$ )?
- A)  $0,1$  B)  $0,2$  C)  $0,8$  D)  $0,15$

48. Tok manbai, voltmetr, o'tkazgichlar va kalitdan iborat quyidagi zanjir tuzildi. Voltmetrning ichki qarshiligi o'tkazgichlar qarshiligi  $R$  dan juda katta, manbaning ichki qarshiligi esa  $r = R/4$  ga teng. Kalit ulanganidan so'ng voltmetrning ko'rsatishi qanday o'zgarishini toping.

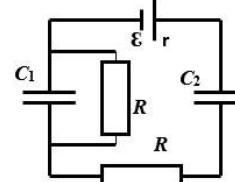


- A) 3 marta kamayadi B)  $66/65$  marta kamayadi  
C) o'zgarmaydi D)  $33/31$  marta ortadi

49. Elektr yurituvchi kuchi  $30\text{ V}$  ga teng bo'lgan tok manbaiga avval  $4\Omega$  elektr qarshiligi ega bo'lgan o'tkazgich, so'ngra qarshiligi  $9\Omega$  ga teng bo'lgan o'tkazgich ulandi. Bu ikki holda tashqi zanjirda ajralgan elektr quvvati bir xil qiymatga ega bo'lsa, shu quvvatni toping (W).

- A) 44 B) 100 C) 36 D) 21

50. Chizmadagi kondensatorlarning sig'implari  $C_1=C_2=4\mu\text{F}$  ga, tasshiqi qarshiliklar  $2\Omega$  dan, manbaning EYKi  $10\text{ V}$ , ichki qarshiligi  $2\Omega$  ga teng bo'lsa,  $C_1$  kondensatordagi kuchlanishni toping (V).



- A) 0 B) 5 C) 2 D) 10

51. Magnit induksiyasi  $16,7\text{ mT}$  bo'lgan bir jinsli magnit maydoniga induksiya chiziqlariga tik yo'nalişda uchib kirgan proton aylana troyektoriya bo'ylab harakatlanadi.  $8\pi s$  ichida protonning aylanishlar soni qanchaga teng bo'ladi?
- A)  $6,4 \cdot 10^6$  B)  $3,2 \cdot 10^6$  C)  $4 \cdot 10^5$  D)  $3,2 \cdot 10^5$

52. Induktiv g'altakdan  $2\text{ A}$  tok o'tganda, unda  $40\text{ Vb}$  magnit oqimi vujudga keladi. Agar g'altakdagi magnit oqimi doimiy saqlanib, g'altakning o'ramlar soni  $2$  marta orttirilsa, undagi magnit maydon energiyasi qanday qiymatga (J) ega bo'ladi?
- A) 10 B) 5 C) 80 D) 160

53. Tebranish konturi induktivligi  $96\text{ mGn}$  bo'lgan g'altak, elektr sig'imi  $24\text{ nF}$  bo'lgan kondensator va kalitdan iborat. Boshlang'ich vaziyatda kalit uzuq va kondensator  $3\text{ mK}$  zaryadga ega. Kalit ulanganidan so'ng qancha vaqt (mks) o'tgach konturdagi magnit maydon energiyasi elektr maydon energiyasidan  $3$  marta kichik bo'ladi?
- A)  $12,5$  B)  $31,4$  C)  $25,1$  D)  $6,28$

54. Yuzasi  $4\text{ sm}^2$  bo'lgan sirdan nuqtaviy yorug'lik manbai tarqatayotgan yorug'lik oqimining  $4\%$  qaytayotgan bo'lsa sirtning yorqinligi necha  $\text{Im/sm}^2$  ga teng bo'ladi?
- Manbaaning yorug'lik kuchi  $200\text{ cd}$  ga teng.
- A)  $28,32$  B)  $12,56$  C)  $25,12$  D)  $14,16$

55. Yassi ko'zgudan qaytgan nur bilan ko'zgu sirti orasidagi burchak  $45^\circ$  ga teng bo'lsa, tushayotgan va qaytgan nurlar orasidagi burchak qanchaga teng bo'ladi?
- A)  $90^\circ$  B)  $45^\circ$  C)  $135^\circ$  D)  $22,5^\circ$

56. Havo-muhit chegarasiga  $60^\circ$  burchak ostida tushayotgan nuring to'lqin uzunligi  $450\text{ nm}$  ga teng. Agar qaytgan nur bilan singan nur o'zaro perpendikulyar joylashgan tekisliklar bo'ylab tarqalayotgan bo'lsa, singan nuring to'lqin uzunligini toping (nm).
- A)  $450\sqrt{3}$  B)  $450$  C)  $450/\sqrt{3}$  D)  $450/\sqrt{2}$

57. Ketma-ket joylashgan ikkita qutblagichning optik o'qlari orasidagi burchak  $\pi/4$  ga teng. Qutblagichlarga tushayotgan tabiiy oq yorug'lik nurining intensivligi  $4,8 \cdot 10$  bo'lsa, ulardan o'tgan yorug'lik intensivligini toping.

- A)  $4,8 \cdot I_0$  B)  $2,4 \cdot I_0$  C)  $1,2 \cdot I_0$  D)  $0,6 \cdot I_0$

**58.** 6,6 g massaga ega bo‘lgan jism butunlay elektromagnit maydoniga aylanib ketsa, shu jarayonda chastotasi  $2 \cdot 10^{15}$  Hz bo‘lgan fotonlardan nechtaşı nurlanishi mumkinligini aniqlang.  $h = 6,6 \cdot 10^{-34}$  J·s.

- A)  $4,5 \cdot 10^{32}$  B)  $3 \cdot 10^{31}$  C)  $9 \cdot 10^{32}$  D)  $3,3 \cdot 10^{31}$

**59.** Radioaktiv moddaning aktivligi 8 sutkada 75% ga kamaygan bo‘lsa, uning yarim yemirilish davri necha sutkaga teng bo‘ladi?

- A) 2 B) 8 C) 4 D) 6

**60.** Proton bilan antiproton nimasi bilan farq qiladi?

A) *massasi bilan* B) *zaryadi bilan* C) *energiyasi bilan*  
D) *spini bilan*

### INGLIZ TILI

**61.** Choose the best answer.

The guests will arrive soon. It is high time we ...the table.  
A) *lay* B) *laid* C) *lain* D) *have lain*

**62.** Choose the best answer

The guests arrived, ..., we weren't ready.  
A) *due to* B) *despite* C) *yet* D) *wish*

**63.** Choose the best answer

One ...endorse a check before one cashes it.  
A) *must* B) *needs* C) *was supposed to* D) *has to be*

**64.** Choose the best answer

I hope that you'll achieve your goal and ...  
A) *so do we* B) *so will we* C) *we will, too* D) *nor do we*

**65.** Choose the best answer.

There's ... milk in the refrigerator.  
A) *a little* B) *a few* C) *few* D) *many*

**66.** Choose the best answer.

I had the optician ... my eyes.  
A) *test* B) *tested* C) *to test* D) *testing*

**67.** Choose the best answer

You should be able to practise ...every day.  
A) *to sing* B) *singing* C) *sing* D) *being sung*

**68.** Choose the best answer

We don't have ...language.  
A) *the same* B) *alike* C) *same* D) *the same as*

**69.** Choose the best answer.

“Did you enjoy travelling?” – He asked me.  
He asked me...

- A) *if he had enjoyed travelling*  
B) *if he enjoyed travelling*  
C) *if you had enjoyed travelling*  
D) *if I had enjoyed travelling*

**70.** Choose the best answer

The men ...are in the room are angry.

- A) *whom* B) *whose* C) *who* D) *with whom*

**71.** Choose the right answer

Why ... there any chalk for the chalkboard?  
A) *is* B) *are* C) *have been* D) *were*

**72.** Choose the right answer.

Hit on the head by one of the assailants, ...  
A) *His friends took him to hospital*  
B) *it was a terrible sight*  
C) *the teacher fainted*  
D) *his wife called for a doctor*

**73.** Choose the best answer

You failed your exam because you didn't work hard enough.  
You wished that you ...hard enough.  
A) *studied* B) *had studied* C) *would study* D) *could have study*

**74.** Choose the plural form of the word “oasis”.

- A) *oasis* B) *oasies* C) *oases* D) *oasises*

**75.** Choose the best answer

Return ... my book.  
A) *I* B) *their* C) *me* D) *mine*

**76.** Choose the best answer

Do you see ..... boy playing over there? He is ..... one who broke my car's windscreen yesterday.  
A) *a/-* B) *the/the* C) *the/-* D) */the*

**77.** Choose the best answer.

- Nobody had helped anybody on the farm.  
- Oh, .....?  
A) *Had they* B) *Didn't they* C) *Hadn't they* D) *Did they*

**78.** Choose the best answer

When your favorite team loses, you always blame it ....the lack of luck.  
A) *on* B) *in* C) *for* D) *from*

### Read the text. Then choose the right answer.

Before the paper machine was invented, paper was made by hand one at a time. In 1798, a Frenchman named Nicolas-Louis Robert invented a moving screen belt that would receive a continuous flow of stock and give an unbroken sheet of paper to a pair of squeeze rolls. The invention was not really used much, but two Englishmen, the Fourdrinier brothers, improved on Robert's idea and built a better version in 1807. From these crude beginnings modern papermaking machines were developed. In spite of the fact that modern creations and engineering have formed and ancient craft into a technical industry, the basic procedures remain the same.

**79.** According to the passage, Even though there are modern paper making machines, ...

- A) *mechanical pulp was first made in Germany*  
B) *there are practical methods for manufacturing paper from wood and vegetable pulps*  
C) *many publishing processes were developed*  
D) *the basic system is still the same*

80. According to the author, the paper machine that Fourdrinier brothers developed ...

- A) depended on rags and linen and this made mass production possible
- B) there were two major kinds of pulping processes used in the 18th century
- C) which was not suitable for paper in which high whiteness and permanence were required
- D) was based on Robert's invention

81. The word "continuous" means ....

- A) with interruption
- B) progressive
- C) temporary
- D) sudden

82. During the primitive stage of production ...

- A) paper was made manually one by one
- B) diverse substances required wetting and penetration
- C) a sheet of paper composed of cellulose fibers
- D) paper sheets were impregnated with animal glue

**Read the text. Then choose the right answer.**

On the coast of California, on top of a mountain, stands an enormous castle which looks as if it has been lifted out of the Middle Ages and laid on the site. In fact the castle, called San Simeon, was built for the American newspaper proprietor, William Randolph Hearst but it is furnished with objects dating from different historical periods, which were transported from Europe. It took thirty years to build the castle and even then it was not completed. Throughout this time, over a hundred workmen were permanently employed on its site and the architect Julia Morgan, was continually obliged to change its design, as often as Hearst changed his mind. Rooms and whole floors were constructed but then had to be knocked down and rebuilt to please him. Agents were set all over Europe to find works of art to decorate the castle. Old ceilings and fireplaces, furniture, paintings and statues were purchased and shipped to America. An enormous number of objects were bought but many of them could not be used and had to be stored in warehouses, some of them not even unpacked.

83. The Castle of San Simeon was ...

- A) transported from Europe
- B) furnished with works of art from Europe
- C) constructed in the Middle Ages
- D) completed in 30 years

84. Choose the best title for the passage.

- A) Agents
- B) The Castle
- C) Constructions of the Middle Ages
- D) Works of art

85. A large number of works of art bought for the castle were not used because ...

- A) Hearst always changed his mind
- B) there was not enough room for them
- C) they were stored in warehouses
- D) they arrived long after the castle completed

86. It took a long time to build the castle because ...

- A) only a hundred workers then were employed on it
- B) it was badly designed.

- C) Julia Morgan frequently changed her mind.
- D) the owner did not know what he wanted.

**Read the text. Then choose the right answer.**

If recycling of the rubbish is too complicated, then the government should consider other ways of salvaging raw materials from our rubbish, or at least putting it to better use. At the moment 90 % of our rubbish is dumped, sometimes near well-known beauty spots. In Japan they crush their rubbish, coat it in concrete and use it for making roads. In Sweden whole blocks of flats are heated by burning domestic rubbish in special incinerators, and in America they've found a way of obtaining oil and gas from rubbish. They do not waste their waste but are finding new fuels. It is time we started to think seriously about the growing shortage of raw materials in the world today and stopped this mad destruction of our environment by our throw-away society.

87. The writer urges authorities to make good use of rubbish ...

- A) because we not only pollute our environment with our rubbish but also rapidly run out of raw material.
- B) by just throwing it away
- C) although he knows that it can not be recycled
- D) and destroy the beautiful natural spots

88. Choose the best title for the passage.

- A) Recycling
- B) Rubbish
- C) Special incinerators
- D) Destruction

89. It is clear in the passage that ...

- A) in no part of the world can rubbish be cycled
- B) there is no way to make use of rubbish
- C) rubbish is used for making roads in America
- D) some countries make use of rubbish in various ways.

90. We understand from the passage that ...

- A) ten percent of our rubbish is dumped
- B) the government can do nothing to recycle rubbish
- C) rubbish can be used as a source of raw material
- D) authorities are not willing to reuse the waste materials