

O‘ZBEKISTON RESPUBLIKASI VAZIRLAR MAHKAMASI  
DAVLAT TEST MARKAZI

REPITISION TEST TOPSHIRUVCHILAR UCHUN

## SAVOLLAR KITOBI

ABITURIYENT: \_\_\_\_\_ F.I.O. \_\_\_\_\_ Imzo \_\_\_\_\_

### ABITURIYENT DIQQATIGA!

Test topshiriqlarini yechishdan avval savollar kitobini varaqlab, unda har bir fan bo‘yicha 36 ta savol mavjudligini tekshiring. Agar savollar soni kamligi aniqlansa yoki savollar savollar kitobi raqami bilan javoblar varag‘i raqami bir xil bo‘lmasa, darhol auditoriya rahbariga ma’lum qiling.

**Savollar kitobida abituriyentning familiyasi, ismi, otasining ismi xato to‘ldirilgan yoki to‘ldirilmagan, va imzosi qo‘yilmagan hollarda e’tirozi ko‘rib chiqilmaydi.**

Kitob tipi: **55 (636624)**

### FANLAR:

*Blok 1: Matematika (informatika bilan)*

*Blok 2: Fizika*

*Blok 3: Ingliz tili*

Savollar kitobi raqami: **1000038**

Toshkent – 2014

### MATEMATIKA (INFORMATIKA BILAN)

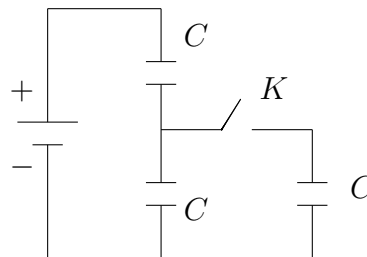
1.  $\sqrt{2^{1,5}\sqrt{5^3\sqrt{2^{1,5}\sqrt{5^3}\dots}}}$  ifodaning qiymatini toping.  
A) 10 B) 14 C) 17 D) 12
2. Rombning balandligi 12 ga va diagonallaridan biri 15 ga teng bo'lsa, uning yuzini hisoblang.  
A) 100 B) 125 C) 150 D) 180
3. Umumiy bahosi 225 dinor bo'lgan ikki xil qimmatbaho mo'ynali teri xalqaro bozorda 40% foydasi bilan sotildi. Agar birinchi xil teridan 25%, ikkinchisidan 50% foyda qilingan bo'lsa, har bir terining bahosi necha dinor bo'lgan?  
A) 100; 125 B) 200; 25 C) 80; 145 D) 90; 135
4.  $f(x+5) = x \cdot f(x) + 4$  bo'lsa,  $f(10)$  ni toping.  
A) 30 B) 24 C) 25 D) 23
5. Oltiburchakli muntazam prizma eng katta diagonal kesimining yuzi  $Q$ , prizmaning qarama-qarshi yon yoqlari orasidagi masofa  $b$  bo'lsa, prizmaning hajmini hisoblang.  
A)  $\frac{4bQ}{3}$  B)  $\frac{3bQ}{2}$  C)  $\frac{3bQ}{4}$  D)  $\frac{bQ}{2}$
6.  $2^{x^2-16} \leq 1$  tengsizlikni yeching.  
A)  $[-4; 4]$  B)  $[0; 4)$  C)  $(-2; 2)$  D)  $(0; 2)$
7.  $y = 1994x^2 + 2013x - 1$  funksiya grafigi qaysi choraklardan o'tadi?  
A) I, II, III B) II, IV C) I, II, III, IV D) I, II, IV
8.  $\frac{2^{3a+0,5} + \sqrt{2}}{4^a - 2^a + 1} \cdot (2^{a+0,5} - \sqrt{2}) - 2^{2a+1}$  ni hisoblang.  
A)  $-2^a$  B)  $4^a\sqrt{2}$  C)  $2\cos 7\pi$  D) 2
9.  $f(x) = x^2 + x - 1$  funksiya uchun  $f'(x) = 0$  bo'lsa,  $x$  ning qiymatini toping.  
A)  $-\frac{1}{2}$  B)  $-\frac{3}{4}$  C)  $-\frac{2}{3}$  D)  $\frac{1}{3}$
10. Uzunligi 17 ga teng bo'lgan kesmaning uchlari tekislikdan 4 va 12 ga teng uzoqlikda yotishi ma'lum bo'lsa, kesmaning tekislikdagi proyeksiyasi uzunligini toping.  
A) 15 B) 16 C) 10 D) 12
11. Parallelogramning diagonali 8 sm li tomoni bilan  $60^\circ$  li, ikkinchi tomoni bilan esa  $75^\circ$  li burchak tashkil etadi. Ushbu diagonalning uzunligini (sm) toping.  
A)  $4(\sqrt{3} + 1)$  B)  $8(\sqrt{3} + 1)$  C)  $4(\sqrt{3} - 1)$  D)  $8(\sqrt{3} - 1)$
12.  $2x^2 + 5y^2 - 4xy - 2y - 4x + 5 = 0$  tenglamani qanoatlantiruvchi nechta  $(x, y)$  juftlik mavjud?  
A) 3 ta B) mavjud emas C) 2 ta D) 1 ta
13. 
$$\begin{cases} \frac{x+3}{3-x} < 2, \\ x^3 < 16x, \\ 4 \geq x^2 \end{cases}$$
 tengsizliklar sistemasini yeching.  
A)  $(4; 6]$  B)  $[2; 3]$  C)  $(3; 5)$  D)  $(0; 1)$
14. To'g'ri burchakli uchburchakning katetlari yig'indisi gipotenuzadan 8 sm ortiq. Agar uchburchakning perimetri 48 sm bo'lsa, uning yuzini ( $\text{sm}^2$ ) toping.  
A) 148 B) 60 C) 52 D) 96
15. Agar arifmetik progressiyada  $a_1 + a_2 + a_3 = 0$  va  $a_1^2 + a_2^2 + a_3^2 = 50$  bo'lsa, uning ayirmasini toping.  
A) 2 B)  $\pm 5$  C) 4 D) 1
16. Aylanaga tashqi chizilgan muntazam oltiburchakning tomoni  $4\sqrt{2}$  bo'lsa, aylanaga ichki chizilgan kvadratning yuzini hisoblang.  
A) 64 B) 48 C) 50 D) 52
17. Qirralari 6 ga teng bo'lgan kubga ichki chizilgan sharning hajmini toping.  
A)  $72\pi$  B)  $27\pi$  C)  $108\pi$  D)  $36\pi$
18.  $y = 2\cos^2\frac{x}{2} - \text{tg}x \cdot \text{ctg}x$  funksiyaning qiymatlari to'plamini toping.  
A)  $[0; 3]$  B)  $(-1; 0) \cup (0; 1)$  C)  $(1; 2) \cup (2; 3)$  D)  $[1; 3]$
19. Barcha ikki xonali sonlar ko'paytmasidan tashkil topgan ko'paytmada 7 sonining eng katta darajasini aniqlang.  
A) 13 B) 14 C) 15 D) 16
20. Rombning tomoni  $10\sqrt{3}$  ga, o'tmas burchagi  $120^\circ$  ga teng. Rombga ichki chizilgan doiraning yuzini hisoblang.  
A)  $48,75\pi$  B)  $58,6\pi$  C)  $52,25\pi$  D)  $56,25\pi$

21. Silindrga shar ichki chizilgan. Silindr o'q kesimining diagonali  $l$  ga teng bo'lsa, shar sirtining yuzini hisoblang.  
A)  $\frac{\pi}{3} \cdot l^2$  B)  $\frac{\pi}{4} \cdot l^2$  C)  $\frac{\pi}{2} \cdot l^2$  D)  $\pi \cdot l^2$
22.  $\sqrt{5 - \sqrt{2x - 7}} = 2$  tenglamaning ildizlari quyidagi oraliqlardan qaysi biriga tegishli?  
A)  $(-1; 1)$  B)  $[4; 6)$  C)  $[1; 3)$  D)  $[3; 4)$
23. Doiraning yuzasi 44% ga oshirilsa, uning radiusi necha foizga oshadi?  
A) 20 B) 30 C) 25 D) 35
24.  $ABC$  uchburchak uchlaridan va shu uchburchakning medianalari kesishgan  $M$  nuqtadan  $\alpha$ -tekislikka tushirilgan perpendikularlar asoslari mos ravishda  $A_1, B_1, C_1, M_1$  nuqtalarda yotsa,  $AA_1 + BB_1 + CC_1$  va  $MM_1$  uzunliklari nisbatini toping.  
A) 1 B) 2 C)  $\frac{3}{2}$  D) 3
25.  $n \in N$  va  $\frac{1}{2} + \frac{1}{3} + \frac{1}{7} + \frac{1}{n}$  yig'indi butun son bo'lsa, quyidagilardan qaysi biri noto'g'ri?  
A)  $n$  soni 2 ga bo'linadi  
B)  $n$  soni 6 ga bo'linadi C)  $n > 84$   
D)  $n$  soni 3 ga bo'linadi
26.  $\sin x = [x]$  tenglamani yeching. (Bu yerda  $[x]$  – butun qism.)  
A)  $\emptyset$   
B)  $0, \frac{\pi}{2}, \pi$   
C)  $x = \pi k; x = \frac{\pi}{2} + \pi k; k \in Z$   
D)  $0$  va  $\frac{\pi}{2}$
27.  $f(x) = \cos x + e^x, F(x) = ?$   
A)  $\sin x - \frac{1}{x}e^x + c$  B)  $-\cos x + e^x + c$   
C)  $\sin x + e^x + c$  D)  $-\sin x + e^x + c$
28.  $cx^2 + \sqrt{20}x + c + 2 > 0$  tengsizlik yechimga ega bo'lmaydigan  $c$  ning butun qiymatlari orasidan eng kattasini toping.  
A) -4 B) -2 C) -6 D) -1
29. Doiraning yuzi  $6,25\pi$  ga teng. Bu doirada uzunligi 3 ga teng bo'lgan vatar o'tkazilgan. Doira markazidan vatargacha bo'lgan masofani toping.  
A) 2,5 B) 4 C) 3 D) 2
30. Natural  $m$  va  $n$  sonlar uchun  $\frac{m}{4} + n = 8$  bo'lsa,  $m$  qabul qilishi mumkin bo'lgan qiymatlar ichida eng kattasini toping.  
A) 24 B) 28 C) 20 D) 16
31. 3 terabayt axborotni baytlarda ifodalang.  
A)  $3^{40}$  bayt B)  $3 \cdot 2^{40}$  bayt C)  $6^{40}$  bayt  
D)  $2^{40}$  bayt
32. Tashkil etuvchi barcha sodda mulohazalar rost bo'lganda quyidagilardan qaysi birining natijasi rost bo'ladi?  
A)  $(A \vee \neg B) \wedge \neg(C \vee D)$   
B)  $A \wedge \neg B \vee C \wedge \neg D$   
C)  $A \vee B \wedge \neg C \vee \neg D$   
D)  $\neg A \vee (B \vee C) \wedge \neg D$
33. Faylning xususiy nomi nechta belgidan iborat bo'lishi mumkin?  
A) 1 tadan 8 tagacha  
B) 1 tadan 64 tagacha  
C) operatsion sistema va dasturga bog'liq  
D) 1 tadan 255 tagacha
34. MS Excel 2003 da berilgan shartni qanoatlantiruvchi satrlarni ajratib olish amali qanday ataladi?  
A) filtrlash B) tartiblash C) avtofiltr  
D) hisobga olish
35. Elektron pochta manziliga oid mulohazalardan xatosini aniqlang.  
A) E-mail manzilida @ belgisi ishtirok etmaydi  
B) E-mail manzilida probel (bo'shliq) belgisi ishtirok etmaydi  
C) E-mail manzilida raqamlar ishtirok etadi  
D) E-mail manzilida lotin harflari ishtirok etadi
36. Paskal dasturi lavhasidagi hisob natijasini aniqlang.  
begin a:=12; b:=14; c:=10; if(a>b) or (b>c) then y:=a+b-c else y:=a-b+c; writeln(y); end.  
A) 8 B) 6 C) 16 D) 14

## FIZIKA

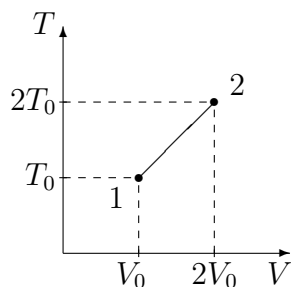
- Kuchlanganlik vektori gorizontal yo'nalgan, moduli  $1,73 \text{ kV/sm}$  ga teng bo'lgan bir jinsli elektr maydonida  $1 \text{ m}$  uzulikdagi vazinsiz, cho'zilmas ipga elektr zaryadi  $1 \mu\text{C}$ , massasi  $10 \text{ g}$  metall sharcha osib qo'yilgan. Agar elektr maydoni keskin yo'qotilsa sharcha qanday maksimal kinetik energiyaga (mJ) ega bo'ladi?  
A) 40 B) 30 C) 60 D) 50
- Elektropoyezdning uchinchi vagoni oldida turgan kuzatuvchi harakat boshlagan vagonning  $5 \text{ s}$  davomida o'tganini, poyezdning oxiri o'tguncha esa  $20 \text{ s}$  vaqt o'tganini aniqlagan bo'lsa, poyezdning vagonlari soni nechta? (Poyezd harakati tekis tezlanuvchan.)  
A) 16 B) 15 C) 14 D) 18
- Hozirgi zamon texnikasi yordamida  $1 \text{ pPa}$  vakuum hosil qilish mumkin. Shunda  $1 \text{ sm}^3$  hajda  $300 \text{ K}$  temperaturada nechta gaz molekulasi qoladi?  
A) 240 B) 200 C) 220 D) 300
- Massasi  $5000 \text{ t}$  bo'lgan poyezd  $36 \text{ km/soat}$  tezlik bilan harakatlanmoqda. Agar tormozlanish kuchi  $0,25 \text{ MN}$  ga teng bo'lsa, tormozlangandan keyin bir minut ichida poyezd qancha masofani (m) o'tadi?  
A) 51 B) 510 C) 5100 D) 5000
- Osilgan prujinaga yuk  $0,5 \text{ s}$  davr bilan tebranmoqda. Agar yuk prujinadan olinsa, prujina qanchaga qisqaradi (sm)?  
A) 5,4 B) 39,7 C) 6,3 D) 2,0
- G'altakning o'lchamlarini uning induktivligi 2 marta ortadigan qilib o'zgartirildi. G'altakdan o'tayotgan tokni 2 marta kamaytirildi. G'altakning magnit maydon energiyasi qanday o'zgaradi?  
A) o'zgarmaydi B) 2 marta ortadi  
C) 4 marta ortadi D) 2 marta kamayadi

- Quyidagi sxema bo'yicha K kalit ochiq paytidagi  $q$  zaryad kalit yopilgandan keyin nimaga teng bo'ladi? Ikkala holda ham kuchlanish o'zgarmas deb hisoblang.



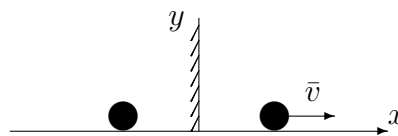
- A)  $4q/3$  B)  $4q$  C)  $3q$  D)  $3q/4$
- Ma'lum tezlik bilan harakatlanadigan jismning kinetik energiyasi  $50 \text{ MJ}$ , impulsi  $10 \text{ kJ}\cdot\text{m/s}$  bo'lsa, massasini (kg) toping.  
A) 1 B) 2 C) 1,5 D) 0,5
- O'tkazgich kesim yuzini 2 marta, uzunligini 5 marta oshirsak, uning qarshiligi qanday o'zgaradi?  
A) 2,5 marta oshadi B) 3 marta kamayadi  
C) 2,5 marta kamayadi D) 3 marta oshadi
- Massasi  $60 \text{ kg}$  bo'lgan sirk artisti tortib qo'yilgan to'rga  $10 \text{ m}$  balandlikdan sakramoqda. Agar to'r  $1 \text{ m}$  egilsa, artist qanday o'rtacha kuch (N) bilan bosadi?  
A)  $12 \cdot 10^3$  B)  $6,6 \cdot 10^3$  C)  $1,2 \cdot 10^4$   
D)  $0,6 \cdot 10^3$
- Slindrik idishga teng massali simob ( $\rho_{sim}=13600 \text{ kg/m}^3$ ) va kerosin ( $\rho_{ker}=800 \text{ kg/m}^3$ ) quyildi. Ularning umumiy balandligi  $18 \text{ sm}$  bo'lsa, idish tubidan  $1 \text{ sm}$  yuqoridagi bosimni (Pa) aniqlang.  $g=10 \text{ m/s}^2$   
A) 680 B) 1224 C) 1360 D) 2720
- Aylanma harakat uchun dinamikaning asosiy qonuni formulasini belgilang.  
A)  $\vec{\mu} = I\vec{\beta}$   
B)  $M \cdot \Delta t = I\vec{\omega} - I\vec{\omega}_0$   
C)  $I\omega$   
D)  $\Delta Fr = \Delta mr^2\beta$
- $2 \text{ mol}$  geliy  $30^\circ\text{C}$  dan  $-70^\circ\text{C}$  gacha sovutilganda, uning ichki energiyasi (kJ) qanchaga kamayadi?  
A) 25 B) 5 C) 8,31 D) 2,5

14. Rasmda bir atomli ideal gaz 1 holatdan ikkinchi holatga o'tish jarayonida temperaturasini hajmga bog'lanishini grafigi tasvirlangan. Bu jarayonda gazning ichki energiyasi 45 kJ ga ortgan bo'lsa, gaz jami qancha issiqlik (kJ) qabul qilgan?



- A) 90 B) 45 C) 0 D) 75
15. Buyum va uning tasviri orasidagi masofa  $l$  ga teng bo'lib, tasvir buyumdan  $n$  marta katta bo'lsa, linzaning fokus masofasini ( $F$ ) toping.
- A)  $\frac{l(n+1)}{n^2}$  B)  $\frac{n+1}{n^2}$  C)  $\frac{n}{(n+1)^2l}$   
D)  $\frac{ln}{(n+1)^2}$
16. 100 mol simob qancha hajmni (l) egallaydi? ( $M = 200 \frac{g}{mol}$ ,  $\rho = 13600 \frac{kg}{m^3}$ )
- A) 1,52 B) 2,23 C) 1,66 D) 1,47
17. Tebranish konturida kondensator plastinkalaridagi  $q$  zaryad  $t$  vaqt o'tishi bilan  $q = 10^{-6} \cos 10^4 \pi t$  qonun bo'yicha o'zgaradi. Zaryadning amplituda (C) qiymatini ko'rsating.
- A)  $10^{-6}$  B)  $\pi \cdot 10^{-6}$  C)  $10^{-4}$  D)  $10^{-9}$
18. Yadro reaksiyasida tushirib qoldirilgan zarrani aniqlang.  
 ${}^7_3Li + ? \rightarrow {}^{10}_5B + {}^1_0n$
- A)  $\beta$  B)  $\gamma$  C)  $\alpha$  D)  $n$
19. Gorizontga nisbatan  $53^\circ$  burchak ostida  $v_0$  tezlik bilan otilgan jismning 20 m balandlikdan erkin tushgan jism bilan uchish vaqtlari teng bo'lsa,  $v_0$  ni (m/s) toping.  $\cos 53^\circ = 0,6$
- A) 13,4 B) 12,5 C) 19,2 D) 16,3

20. Sharcha yassi ko'zgu bilan bog'langan sistemada  $\vec{v}$  tezlik bilan kuzgudan uzoqlashmoqda. Sharcha tasvirini tezligi nimaga teng?



- A)  $-v$  B)  $2v$  C)  $v$  D)  $-2v$
21. Suv tubidan qalqib chiqayotgan pufakchanning hajmi suv sirtiga yaqinlashganda  $n$  marta ortgan bo'lsa, suvning chuqurligini aniqlash ifodasini ko'rsating.  $P_a$  - atmosfera bosimi,  $\rho_s$  - suv zichligi.
- A)  $\frac{P_a(n-1)}{\rho_s g}$  B)  $\frac{P_a g}{\rho_s(n-1)}$  C)  $\frac{P_a}{\rho_s(n-1)g}$   
D)  $\frac{\rho_s(n-1)}{P_a g}$
22. Qarshiliklari  $R_1=20 \Omega$  va  $R_2=10 \Omega$  bo'lgan o'tkazgichlar o'zaro parallel ulangan holda elektr tarmog'iga ulandi. Tarmoqdagi tok kuchi 300 mA ga teng bo'lsa, birinchi o'tkazgichda 1 minut ichida qancha issiqlik miqdori (J) ajralib chiqadi?
- A) 24 B) 36 C) 12 D) 15
23. Induktivligi 0,2 H bo'lgna g'altakdan 10 A tok o'tmoqda. G'altak ichidagi magnit maydon energiyasini (J) aniqlang.
- A) 0,1 B) 100 C) 1 D) 10
24.  $I = I_0 \cos^2 \alpha$  ko'rinishdagi qonun qanday ataladi?
- A) Malus qonuni B) Biger-Lambert qonuni  
C) Gugins qonuni D) Frenal fonuni
25. Massalari  $m$  va  $2m$  bo'lgan toshlar bir xil balandlikdan, bir vaqtda erkin tua boshladi. Qaysi toshning yerga urilish vaqtdagi tezligi katta bo'ladi?
- A) ularning hajmiga bog'liq  
B) birinchi toshning C) ikkinchi toshning  
D) tezliklari teng
26. Temperatura ortishi bilan yarimo'tkazgichning qarshiligi ...
- A) avval ortadi, keyin kamayadi B) kamayadi  
C) o'zgarmaydi D) ortadi

27. Ichki qarshiligi  $0,5 \Omega$  bo'lgan tok manbaiga  $3 \Omega$ li tashqi qarshilik ulanganda, tok manbayi qisqichlaridagi kuchlanish  $6 \text{ V}$  bo'lgan. Manbaning to'la quvvatini ( $W$ ) aniqlang.  
A) 12 B) 18 C) 14 D) 6
28. Quyida ifodalangan qonun qanday nomlanadi?  
**Agar jism bir necha kuch ta'sirida harakatlanayotgan bo'lsa, har bir kuch boshqa kuchlar bilan birga yoki yakka o'zi ta'sir qilayotganidan qat'iy nazar jismga hamma vaqt bir xil tezlanish beradi.**  
A) *Impulsning saqlanish qonuni*  
B) *Kuchlar ta'sirining mustaqillik qonuni*  
C) *Nyutoning II qonuni*  
D) *Inersiya qonuni*
29. Bosim  $100 \text{ Pa}$ , molekullari konsentratsiyasi  $10^{25} \text{ m}^{-3}$  bo'lganda gazning temperaturasi ( $K$ ) toping.  
A) 725 B) 650 C) 500 D) 800
30. Energiyasi  $3 \cdot 10^{-16} \text{ J}$  bo'lgan nurlanish fotonining to'lqin uzunligi ( $m$ ) nimaga teng?  
 $c=3 \cdot 10^8 \text{ m/s}$ ,  $h=6,6 \cdot 10^{-34} \text{ J}\cdot\text{s}$   
A)  $66 \cdot 10^{-12}$  B)  $6,6 \cdot 10^{-10}$  C)  $6,6 \cdot 10^{-11}$   
D)  $66 \cdot 10^{-10}$
31. Uzunligi  $500 \text{ km}$ , ko'ndalang kesim yuzi  $5 \text{ mm}^2$  bo'lgan aluminiy simdan  $10 \text{ mA}$  tok o'tayotgan bo'lsa, uning uchlaridagi kuchlanishni ( $V$ ) toping. Aluminiyning solishtirma qarshiligi  $2,8 \cdot 10^{-8} \Omega \cdot \text{m}$ .  
A) 21 B) 25 C) 28 D) 14
32. Tebranish konturidagi tok kuchining vaqt bo'yicha o'zgarish tenglamasi quyidagi ko'rinishda berilgan  $I = 0,02 \sin 400\pi t$  (A). Konturning induktivligi  $1 \text{ H}$  ga teng. Kondensator qoplamalaridagi maksimal potentsiallar farqini ( $V$ ), magnit va elektr maydonlarning maksimal energiyasini ( $J$ ) toping.  
A) 23;  $7 \cdot 10^{-4}$  B) 25,1;  $2 \cdot 10^{-4}$  C) 26;  $9 \cdot 10^{-4}$   
D) 24;  $3 \cdot 10^{-4}$
33. Agar prujinani  $0,01 \text{ m}$  siqish uchun  $10 \text{ N}$  kuch kerak bo'lsa  $0,08 \text{ m}$  ga siqish uchun ketgan kuchning ishini ( $J$ ) toping.  
A) 1,6 B) 3,2 C) 6,4 D) 0,8
34. Og'irligi  $750 \text{ N}$  bo'lgan odamni ko'tarib tura oladigan  $50 \text{ sm}$  qalinlikdagi yassi muzning yuzasi eng kamida qancha ( $\text{m}^2$ ) bo'lishi mumkin?  
A) 1,75 B) 1 C) 1,53 D) 1,25
35. Elektron geliy atomini ionlashi uchun kamida qanday tezlikka ( $\text{m/s}$ ) ega bo'lishi kerak? Geliy atomining ionizatsiya energiyasi  $24,5 \text{ eV}$ . Elektron massasi  $9,1 \cdot 10^{-31} \text{ kg}$ .  
A)  $2,93 \cdot 10^6$  B)  $3,6 \cdot 10^6$  C)  $29,4 \cdot 10^6$   
D)  $2,0 \cdot 10^6$
36. Koptok yerdan qaytib  $2h$  balandlikka ko'tarilishi uchun uni,  $h$  balandlikdan pastga qanday  $v_0$  boshlang'ich tezlik bilan tashlash kerak? Urilish absolut elastik deb hisoblansin.  
A)  $v = \sqrt{2gh}$  B)  $v = g/h$  C)  $v = gh$   
D)  $v = 2gh$

### INGLIZ TILI

- Choose the answer which correctly completes the sentence.  
The early pioneers in the US ... mainly on hunting and fishing for their food.  
A) *used to rely* B) *were using to rely*  
C) *used to relying* D) *were used to rely*
- Choose the answer which correctly complete the sentence.  
I hate you ... about your duties.  
A) *to forget* B) *to have forgotten* C) *forget*  
D) *forgot*
- Choose the answer which correctly complete the sentence.  
Sara, my next door neighbour, has a car, but she ... it very often.  
A) *hasn't been using* B) *doesn't use*  
C) *isn't using* D) *hasn't used*
- Choose the answer which correctly completes the sentence.  
He wanted to write to her but she ... give him her address.  
A) *don't* B) *hasn't* C) *wouldn't*  
D) *hadn't*
- Choose the answer which correctly completes the sentence.  
On Sunday she went shopping at ... Macy's and bought an expensive overcoat.  
A) *the* B) *an* C) *a* D) -

6. Choose the answer which correctly completes the sentence.  
It is not ... that the Arabs, who possessed a remarkable gift for astronomy, geometry and mathematics were also skillful mapmakers.  
A) *surprised* B) *surprise* C) *surprising*  
D) *surprises*
7. Choose the answer which correctly completes the sentence.  
That film was released only two days ago, so you ... the film last week.  
A) *couldn't see* B) *needn't see*  
C) *couldn't have seen* D) *mustn't see*
8. Choose the answer which correctly completes the sentence.  
I am afraid there are ... vacancies in the company at present.  
A) *no* B) *neither* C) *not* D) *none*
9. Choose the answer which correctly completes the sentence.  
This is the shop ... sells the best fruit.  
A) *who* B) *where* C) *that* D) *what*
10. Choose the answer which correctly completes the sentence.  
Most of the forest ... cut down and the trees remaining are now under threat.  
A) *have been* B) *has been* C) *were*  
D) *had been*
11. Choose the answer which correctly complete the sentence.  
There was a long line in front of the theatre.  
We ... wait almost an hour to buy our tickets.  
A) *had to* B) *need* C) *were able* D) *must*
12. Choose the answer which correctly complete the sentence.  
I have just had a quarrel with my parents.  
What would you do if you ... me?  
A) *would be* B) *are* C) *had been*  
D) *were*
13. Choose the answer which correctly completes the sentence.  
Alice is not very happy at her present job as a nurse. She wishes she ... to a nursing school.  
A) *didn't do* B) *went* C) *had gone*  
D) *hadn't gone*
14. Choose the answer which correctly completes the sentence.  
A young woman walked into the office. She ... a baby.  
A) *carries* B) *carrying* C) *was carrying*  
D) *had carried*
15. Choose the answer which correctly completes the sentence.  
When he lost his job, he stopped ... expensive clothes.  
A) *to buy* B) *buying* C) *buy* D) *bought*
16. Choose the answer which correctly complete the sentence.  
Sorry about the mess - I ... the house.  
A) *will have painted* B) *have been painting*  
C) *had painted* D) *painted*
17. Choose the answer which correctly completes the sentence.  
He still watched the late film ... being very tired.  
A) *in spite* B) *however* C) *although*  
D) *despite*
18. Choose the answer which correctly completes the sentence.  
It took me one and ... half hours to get there.  
A) *a* B) *the* C) *-* D) *an*
19. Choose the answer which correctly completes the sentence.  
Meeting begins at 6 p.m. You won't be late, ...?  
A) *won't you* B) *you will be* C) *will you*  
D) *will you be*
20. Choose the answer which correctly completes the sentence.  
"Don't let anyone into the house."  
Mrs Jackson told her son ... anyone into the house.  
A) *didn't let* B) *not to let* C) *don't let*  
D) *not let*
21. Choose the answer which correctly complete the sentence.  
- Hello. Can I speak to Ms. Richards, please?  
- I'm sorry. She's ... on holiday at the moment.  
A) *away* B) *off* C) *about* D) *out*

22. Choose the answer which correctly complete the sentence.  
Staying in a hotel costs ... renting a room in a dormitory for a week.  
A) *twice more as*    B) *as much twice as*  
C) *twice more than*    D) *twice as much as*

23. Choose the answer which correctly completes the sentence.  
The roads were slippery and we ... had an accident this morning.  
A) *near*    B) *next*    C) *nearer*    D) *nearly*

Read the text. Then choose the correct answer to question 24-26.

One of the smallest of all mammals is the shrew, a mouse like creature with a head and body length of only 3.8 centimetres. All shrews are small, with dense, velvety fur, long tails, and tiny eyes and ears. Shrews have been called blood-thirsty, though the label is not entirely accurate because they must eat almost constantly to stay alive. The animal is believed to have a very high metabolic rate and cannot live more than a few hours without food. In the absence of normal prey, it will turn to cannibalism to survive. The shrew, or some closely related animal, can be found on every continent except Australia. Since this tiny animal has a reputation for having a very bad temper, the adjective "shrewish" is sometimes used to describe a certain type of women.

24. The passage tells us that the shrew ...  
A) *is similar to a mouse in appearance*  
B) *lives in dense forests.*  
C) *is in the habit of eating every two hours.*  
D) *has a very short life span.*
25. The passage states that shrews ...  
A) *eat each other when they can't find any food.*  
B) *are found in huge numbers in Australia.*  
C) *are the smallest living mammals.*  
D) *eat rarely but in large amounts at a time.*

26. From what is stated in the passage, we can infer that a shrewish woman is someone who ...  
A) *has tiny eyes and ears.*  
B) *is very fond of velvet and fur.*  
C) *easily gets annoyed.*  
D) *is noticeably smaller than the average.*

Read the text. Then choose the correct answer for the gaps 27-28 in the text.

Superstitions are (27)... that some things can't be explained by reason and that there are certain objects or actions that bring good or bad luck. (28)... superstitions are old and people usually have no idea where they came from.

27.  
A) *believes*    B) *beliefs*    C) *believer*  
D) *believe*
28.  
A) *None*    B) *Most*    C) *Much*    D) *The most*

Read the text. Then choose the correct answer for the gaps 29-31 in the text.

Consumers are creatures of habit: they buy the same products time and time again, and such is their (29)... with big brands, and the colours and logos that represent them, that they can register a brand they like with barely any conscious thought process. The packaging of consumer products (30)... therefore crucial vehicle for delivering the brand and the product (31)... our shopping baskets.

29.  
A) *familiarity*    B) *familiarly*    C) *familiarize*  
D) *familiar*
30.  
A) *is*    B) *are*    C) *have been*    D) *will be*



31.

- A) *with* B) *of* C) *into* D) *towards*

Read the text. Then choose the correct answer to question 32-33

One chilly autumn morning in 1945, five thousand shoppers crowded the pavements outside Gimbels Department Store in New York City. The day before, Gimbels had taken out a full-page newspaper advertisement in the *New York Times*, announcing the sale of the first ballpoint pens in the United States. Within six hours, Gimbels had sold its entire stock of ten thousand ballpoints at \$12.50 each—approximately \$130 at today's prices.

In fact this “new” pen was not new after all, and was just the latest development in a long search for the best way to deliver ink to paper. In 1884 Lewis Waterman had patented the fountain pen, giving him the sole rights to manufacture it. This marked a significant leap forward in writing technology, but fountain pens soon became notorious for leaking. In 1888, a leather tanner named John Loud devised and patented the first “rolling-pointed marker pen” for marking leather. Loud's design contained a reservoir of ink in a cartridge and a rotating ball point that was constantly bathed on one side with ink.

Loud's pen was never manufactured, however, and over the next five decades, 350 additional patents were issued for similar ball-type pens, though none advanced beyond the design stage. Each had their own faults, but the major difficulty was the ink: if the ink was thin, the pens leaked, and if it was too thick, they clogged. Depending on the climate or air temperature, sometimes the pens would do both. Almost fifty years later, Ladislav and Georg Biro, two Hungarian brothers, **came up with** a solution to this problem. In 1935 Ladislav Biro was working as a journalist, editing a small newspaper. He became frustrated by the amount of time he wasted filling fountain pens with ink and cleaning up ink smudges. Ladislav and Georg set about making models of new pen designs and creating better inks to use in them. Ladislav observed the ink in newspaper printing dried rapidly, leaving the paper dry and smudge-free. He was determined to construct a pen using the same type of ink. However, the thicker ink would not flow from a regular pen nib so he had to develop a new type of point. Biro came up with the idea of fitting his

pen with a tiny ball bearing in its tip. As the pen moved along the paper, the ball bearing rotated and picked up ink from the ink cartridge which it delivered to the paper.

32. The problem with the ballpoint pens invented between 1888 and 1935 was that ...
- A) *they could not write on ordinary paper*  
 B) *the technology to manufacture them did not exist*  
 C) *they cost a great deal of money to manufacture*  
 D) *they were affected by weather conditions*
33. What does “**came up with**” in bold mean?
- A) *to get rid of* B) *to move towards*  
 C) *to reject* D) *to suggest*

Read the text. Then choose the correct answer to question 34-36.

Of the six outer planets, Mars, commonly called the Red Planet, is the closest to Earth. Mars, 4,200 miles in diameter and 55% of the size of Earth, is 34,600,000 miles from Earth, and 141,000,000 miles from the Sun. It takes this planet, along with its two moons, Phobos and Deimos, 1,88 years to circle the Sun, compared to 365 days for the Earth.

For many years, Mars had been thought of as the planet with the man-made canals, supposedly discovered by an Italian astronomer, Schiaparelli, in 1877. With the United States spacecraft Viking I's landing on Mars in 1976, the man-made canal theory was proven to be only a myth.

Viking I, after landing on the soil of Mars, performed many scientific experiments and took numerous pictures. The pictures showed that the red colour of the planet is due to the reddish, rocky Martian soil. No biological life was found, though it had been speculated by many scientists. The Viking also monitored many weather changes including violent dust storms. Some water vapour, polar ice and permafrost (frost below the surface) were found, indicating that at one time there were significant quantities of water on this distant planet. Evidence collected by the spacecraft shows some present volcanic action, though the volcanoes are believed to be dormant if not extinct.

34. Which of the following is not true?
- A) *Mars has two moons*
  - B) *Martian soil is rocky*
  - C) *Mars is larger than Earth*
  - D) *It takes longer for Mars to circle the Sun than it takes Earth*
35. Man-made canals were supposedly discovered by ...
- A) *Phobos*
  - B) *Viking I*
  - C) *Martian*
  - D) *Schiaparelli*
36. Mars has been nicknamed as ...
- A) *The Red Planet*
  - B) *Deimos*
  - C) *Viking I*
  - D) *Martian*