.

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: 1000080

Toshkent – 2014

MATEMATIKA (INFORMATIKA BILAN)

1. Radiuslari 2 va 3 ga teng bo‘lgan aylanalar bir-biriga tashqi ravishda urinadi. Ularning ikkalasi uchinchi aylanaga ichki ravishda urinsa va markazlari bitta to‘g‘ri chiziqda yotsa, tashqi aylananing ichki aylanalardan bo‘sh qolgan sohasi yuzini toping.
   A) 9π B) 4π C) 6π D) 12π

2. ABC uchburchak berilgan. AB to‘g‘ri chiziqqa parallel tekislik bu uchburchakning AC tomonini A_1 nuqtada, BC tomonini B_1 nuqtada kesib o‘tadi. AB=15 sm, $AA_1 : AC = 2 : 3$ bo‘lsa, A_1B_1 kesma uzunligini (sm) toping.
   A) *4* B) *3* C) *5* D) *2*

3. $arccos(1+x) + 2arcsinx = 0$ tenglamani yeching.
   A) -1 B) 0 C) $\frac{1}{3}$ D) $-\frac{1}{2}$

4. $f(x) = \frac{1}{sin^2x} + x^2$, $F(x)-?$
   A) $ctgx + 2x^2 + c$ B) $-ctgx + \frac{x^3}{3} + c$
   C) $ctgx + \frac{2x^2}{3} + c$ D) $ctgx + 2x + c$

5. $\sqrt{x^2+2x+1} - |x-4| = 2$ tenglamaning $[1;3]$ kesmadagi ildizini toping.
   A) *1,5* B) *2,(3)* C) *bu oraliqda yechimi yo‘q* D) *2,5*

6. Cheksiz kamayuvchi ishorasi almashinuvchi geometrik progressiyada ketma-ket kelgan uchta hadning yig‘indisi -21 ga, ko‘paytmasi 729 ga teng bo‘lsa, shu sonlarni toping.
   A) *-3; 9; -27* B) *27; -9; 3* C) *-28; 14; -7* D) *-27; 9; -3*

7. Agar $\frac{3^x + 9^x + 18^x}{2^x + 6^x + 12^x} = \frac{24}{81}$ bo‘lsa, x ni toping.
   A) *-3* B) *-5* C) *-4* D) *-2*

8. $\frac{\sqrt[4]{7\sqrt[3]{54} + 15\sqrt[3]{128}}}{\sqrt[3]{4\sqrt[4]{32}} + \sqrt[3]{9\sqrt[4]{162}}}$ ni hisoblang.
   A) $\frac{2}{3}$ B) *1* C) $\frac{3}{5}$ D) $\frac{1}{4}$

9. Dastlabki n ta hadining yig‘indisi $S_n = 2n^2 + 3n$ rekurent formula bilan berilgan ketma-ketlikning o‘ninchi hadini toping.
   A) *27* B) *42* C) *41* D) *39*

10. $(2+\frac{2}{3}-\frac{1}{2})\cdot 6 + (\frac{8}{21}+\frac{1}{3}-\frac{5}{7})\cdot 21 + (\frac{3}{14}-\frac{2}{7}+\frac{1}{2})\cdot 14$ ni hisoblang.
    A) *15* B) *18* C) *20* D) *19*

11. $\frac{2x-5}{x+3} > 3$ tengsizlikni yeching.
    A) $(-\infty;\ -14) \cup (-3;\ \infty)$
    B) $(-14;\ -3)$
    C) $(-14;\ -3) \cup (-3;\ \infty)$
    D) $(-14;\ 3)$

12. $y = x^2 - 4x - 1$ funksiyaga $(x \le 2)$teskari funksiyani ko‘rsating.
    A) $y = 2 + \sqrt{x+5}$ B) $y = 5 - \sqrt{2-x}$
    C) $y = 2 - \sqrt{x-5}$ D) $y = 2 - \sqrt{x+5}$

13. Muntazam yigirmaburchakning eng katta va eng kichik diagonallari orasidagi burchakni toping.
    A) *80°* B) *82°* C) *76°* D) *72°*

14. 2 ta parallel to‘g‘ri chiziqni uchinchi to‘g‘ri chiziq kesib o‘tganda hosil bo‘lgan ichki bir tomonli burchaklar $\frac{7}{13}$ nisbatda. Ulardan kattasini toping.
    A) *117°* B) *63°* C) *120°* D) *113°*

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) *4* B) *2* C) *1* D) ± 5

16. Muntazam o‘nikkiburchakning bitta ichki burchagini hisoblang.
    A) *145°* B) *140°* C) *150°* D) *135°*

17. $7 \cdot 5^2$ va $3^2 \cdot 5 \cdot 7$ sonlari uchun EKUK ni toping.
    A) *1575* B) *1500* C) *315* D) *3150*

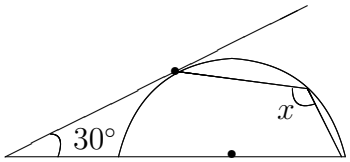
18. $\sqrt[3]{x^2} - 3\sqrt[3]{x} - 4 = 0$ tenglamaning katta va kichik ildizlari ayirmasini toping.
    A) *63* B) *68* C) *65* D) *60*

19. $y = \sqrt{sin^3 2x}$ ning hosilasini hisoblang.
    A) $\frac{3}{2}\sqrt{sin2x}$ B) $3cos2x\sqrt{sin2x}$
    C) $-3cos2x\sqrt{sin2x}$ D) $3\sqrt{sin2x}$

20. Kesik konusning yon sirti 10π ga, to'la sirti 18π ga teng. Konusning to'la sirti unga ichki chizilgan shar sirtidan qanchaga ortiq?
A) 16π B) 15π C) 14π D) 10π

21. To'g'ri burchakli ABC uchburchakda $\angle A = 30°$ bo'lib, AB=6 sm li gipotenuzasini diametri qilib, doira chizildi. Hosil bo'lgan eng kichik segmentning yuzini toping.
A) 18π B) 36π C) $\dfrac{6\pi - 9\sqrt{3}}{4}$
D) $\dfrac{12\pi - 9\sqrt{3}}{4}$

22. Shaklda berilganlardan x ni toping.



A) *105°* B) *80°* C) *135°* D) *120°*

23. Teng yonli trapetsiyaning diagonali 10 ga teng va u asos bilan 60° li burchak tashkil etadi. Trapetsiyaning o'rta chizig'ini toping.
A) *4* B) *6* C) *5* D) $\dfrac{5\sqrt{3}}{2}$

24. $x(x+1)(x-1)(x+2) = 24$ tenglamani yeching.
A) $x_1 = -3;\ x_2 = 2$ B) $x_1 = -1;\ x_2 = -2$
C) $x_1 = x_2 = 1$ D) $x_1 = 0;\ x_2 = 1$

25. Uchlari $A(1;1)$, $B(-2;3)$ va $C(-1;-2)$ nuqtalarda bo'lgan uchburchakning A va B burchaklarini toping.
A) $60°; 30°$ B) $45°; 90°$ C) $90°; 45°$
D) $30°; 90°$

26. x, y butun sonlar uchun $-6 \le x \le 8$, $-9 \le y \le 12$ va $x + y \ne 0$ bo'lsa, $\dfrac{x-y}{x+y}$ ning eng katta qiymatini toping.
A) *32* B) *19* C) *24* D) *17*

27. Teploxod ikki pristan oraligidagi masofani daryo oqimi bo'yicha 7 soat, oqimga qarshi 9 soatda o'tadi. Agar oqimning tezligi 2 km/soat bo'lsa, pristanlar orasidagi masofani (km) aniqlang.
A) *128* B) *120* C) *130* D) *126*

28. $P(x) = (x^2 - 3x + n)^3$ ko'phadning koeffitsientlar yig'indisi 64 ga teng bo'lsa, n ni toping.
A) *6* B) *2* C) *4* D) *8*

29. Muntazam to'rtburchakli prizmaning hajmi 1944 ga, yon sirti $432\sqrt{2}$ ga teng. Prizma asosining simmetriya markazidan ustki asosining uchigacha bo'lgan masofani toping.
A) 9 B) 12 C) 8 D) 15

30. $2^{x^2-16} \le 1$ tengsizlikni yeching.
A) $(0;\ 2)$ B) $[-4;\ 4]$ C) $(-2;\ 2)$
D) $[0;\ 4)$

31. Kodlashning Morze usuli qanday usulga misol bo'ladi?
A) *Notekis kodlash usulu*
B) *Tekis kodlash usuli*
C) *Tartib raqamlari yordamida kodlash usuli*
D) *Alifboni surish usuli*

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. Paskalda quyidagi ifoda a=5, b=15, c=2 bo'lsa qanday natija beradi?
(a+b div c * 4) mod 5 div 3

A) *4* B) *1* C) *3* D) *2*

FIZIKA

1. Ballonda 15°C haroratli gaz bor. Agar gazning η=40% i chiqib ketib, bosimi 1,7 marta kamaygan bo'lsa, harorati (°C) qancha kamaygan bo'ladi?

A) *7,52* B) *10,1* C) *5,65* D) *5,04*

2. Chang'ichi 0,2 m/s^2 tezlanish bilan harakatlanib, uzunligi 50 m bo'lgan qiyalikni 10 s da o'tdi. Uning qiyalik boshidagi tezligi (m/s) qanday bo'lgan?

A) *2* B) *3* C) *5* D) *4*

3. Quduqdan chelakda suv tortilmoqda. Chelak hajmi 10 l. Arqon o'raladigan baraban radiusi 10 sm va dastak tirsagi 50 sm ga teng. Suv chiqarish uchun tirsakka qanday kuch (N) bilan ta'sir etish kerak? Suvning zichligi $1000\frac{kg}{m^3}$.

A) *10* B) *20* C) *50* D) *100*

4. Muz ustida turgan konkichi 5 m/s tezlik bilan 10 kg massali toshni gorizontga 30° burchak ostida uloqtiradi. Agar konkichining massasi 64 kg bo'lsa, uning harakatdagi boshlang'ich tezligi (m/s) qanday bo'ladi?

A) *0,168* B) *0,36* C) *0,68* D) *0,136*

5. Hajmi 12 l bo'lgan idishda 25 g massali gaz 27°C temperaturada va 185 kPa bosim ostida turibdi. Gazning molar massasini (kg/mol) aniqlang.

A) *0,032* B) *0,028* C) *0,040* D) *0,020*

6. Bikrligi 250 N/m bo'lgan prujinaga bog'lab qo'yilganda 16 s ichida 20 marta tebradigan yukning massasini (kg) toping. π^2=10

A) *1,6* B) *0,4* C) *4* D) *16*

7. Quyoshdan Yergacha bo'lgan masofa $150\cdot10^6$ km bo'lsa, Quyoshdan chiqqan yorug'lik Yerga qancha vaqtda (min) yetib keladi? Yorug'lik tezligi $3\cdot10^8$ m/s ga teng.

A) *8* B) *8,33* C) *6* D) *8,5*

8. Elementlari ketma-ket ulangan zanjirning o'zgaruvchan tokka nisbatan to'liq qarshiligi $\sqrt{R^2+(\omega L-1/\omega C)^2}$ ga teng. Chastota ω rezonans chastotaga nisbatan ikki marta katta bo'lsa, bu qarshilik nimaga teng?

A) $\sqrt{R^2+\left(\sqrt{\frac{C}{L}}+\sqrt{\frac{L}{C}}\right)^2}$

B) $\sqrt{R^2+\left(\frac{3L}{2C}\right)^2}$

C) $\sqrt{R^2+\left(2\sqrt{\frac{C}{L}}+\frac{1}{2}\sqrt{\frac{L}{C}}\right)^2}$

D) $\sqrt{R^2+\left(\sqrt{\frac{C}{L}}-\sqrt{\frac{L}{C}}\right)^2}$

9. Tovush havodan suvga o'tganda tovush to'lqinining uzunligi necha marta o'zgaradi? Tovushning suvdagi tezligi 1480 m/s, havodagi tezligi 340 m/s.

A) *0,435* B) *435* C) *43,5* D) *4,35*

10. +1 elektron zaryadiga ega $^{17}_{8}O$ izotopi atomining elektron qobig'ida nechta elektron bo'ladi?

A) *7* B) *8* C) *25* D) *17*

11. 18 V kuchlanish tarmog'iga qarshiligi 40 Ω va 50 Ω ga teng bo'lgan rezistorlar ketma-ket ulandi. Ikkinchi rezistorning uchlaridagi potensiallar farqini (V) toping.

A) *9* B) *10* C) *8* D) *12*

12. 2 ta bir xil (A va B) elektrolitik vanna mis kuporosi eritmasi bilan to'ldirildi. A vannadagi eritmaning konsentratsiyasi B vannadagidan katta. Agar ular ketma-ket ulansa qaysi vannada ko'proq mis ajraladi? Parallel ulansa-chi?

A) *A vannada, B vannada* B) *bir xil, bir xil*
C) *B vannada, A vannada*
D) *bir xil, A vannada*

13. Slindrik idishga teng massali simob (ρ_{sim}=13600 kg/m^3) va kerosin (ρ_{ker}=800 kg/m^3) quyildi. Ularning umumiy balandligi 18 sm bo'lsa, idish tubidan 1 sm yuqoridagi bosimni (Pa) aniqlang. g=10 m/s^2

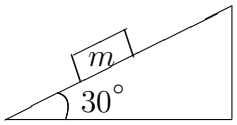
A) *1224* B) *2720* C) *680* D) *1360*

14. Massasi 1 kg jism qanday balandlikdan (m) tushayotganda 4-sekund oxirida potensial va kinetik energiyalari E_{p_4}=450 J; E_{k_4}=800 J ga teng bo‘ladi; g=10 m/s^2.
A) *12,5* B) *125* C) *1250* D) *125 000*

15. Massasi 11 t bo‘lgan trolleybus 36 km/soat tezlik bilan harakatlanmoqda. Agar kuchlanish 550 V va FIK 80% bo‘lsa, dvigatel chulg‘amidagi tok kuchini (A) toping. Harakatlanishga qarshilik koeffitsiyenti 0,02 ga teng.
A) *25* B) *35* C) *50* D) *45*

16. 120 V ga mo‘ljallangan 40 Vt li lampochka 220 V li tarmoqqa ulanganda normal yonishi uchun unga ketma-ket qilib necha metr $3{\cdot}10^{-4}$ m diametrli nixrom simdan ulash kerak bo‘ladi? Nixromning solishtirma qarshiligi $1{,}1{\cdot}10^{-6}$ Om·m.
A) *19,3* B) *10,6* C) *9,3* D) *15,3*

17. 6 kg massali jism qiya tekislikdan o‘zgarmas tezlik bilan sirpanib tushmoqda. 30 sm masofada bajarilgan ish (J) nimaga teng?



A) *6* B) *5* C) *2,5* D) *9*

18. 100 V va 50 V kuchlanishgacha zaryadlangan 2 μF va 0,5 μF sig‘imli kondensatorlarni bir xil ishorali qoplamalari bilan o‘zaro ulanganda issiqlikka aylangan elektr energiyasi miqdorini (J) aniqlang.
A) $2{,}5{\cdot}10^{-4}$ B) $25{\cdot}10^{-4}$ C) $5{\cdot}10^{-4}$
D) $0{,}5{\cdot}10^{-4}$

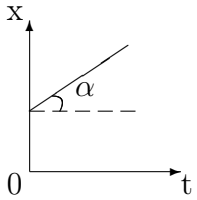
19. Bir atomli 1 mol gaz izobarik kengayganda 160 J ish bajaradi va temperaturasi 10°C ga ortadi. Gazga qancha issiqlik miqdori (J) berilgan?
A) *124* B) *84* C) *160* D) *284*

20. Tok manbaining EYuK 2 V ga, ichki qarshiligi 1 Ω ga teng. Tashqi zanjir 0,75 W quvvat iste’mol qilsa, manbaning tok kuchini (A) aniqlang.
A) *1* B) *1,5* C) *0,5 yoki 1,5* D) *0,5*

21. 60 dm^3 hajmdagi ballonda 27°C temperaturadagi 5 atm bosim ostida vodorod bor. Vodorodni ideal deb hisoblab ,gazning massasini (g) aniqlang.
A) *40* B) *24* C) *12* D) *72*

22. Induktivligi 400 μH bo‘lgan g‘altak 400 kHz chastotali tarmoqqa ulangan. G‘altakning reaktiv qarshiligini (kΩ) toping.
A) *3* B) *2,5* C) *1* D) *2*

23. Berilgan grafikdan foydalanib, α=84° bo‘lganda jism tezligini (m/s) toping. $sin84°$=0,99; $cos84°$=0,1



A) *9,9* B) *0,1* C) *0,11* D) *0,99*

24. Zarraning impulsi p, energiyasi E bo‘lsa, uning tezligi qanday?
A) $\upsilon = p^3/2E$ B) $\upsilon = c^2E/p$ C) $\upsilon = c^2p/E$
D) $\upsilon = E/2p$

25. Og‘irligi 750 N bo‘lgan odamni ko‘tarib tura oladigan 50 sm qalinlikdagi yassi muzning yuzasi eng kamida qancha (m^2) bo‘lishi mumkin?
A) *1* B) *1,25* C) *1,53* D) *1,75*

26. Agar shishadan tayyorlangan qavariq linzaning fokus masofasi shu linzaning egrilik radiusiga teng bo‘lsa, shishaning sindirish ko‘rsatkichi nimaga teng?
A) *1,5* B) *3* C) *2* D) *1,2*

27. Tutash idishlarda balandligi 10,35 sm bo‘lgan suv ustuni, balandligi 11,5 sm bo‘lgan mineral moy ustuni bilan muvozanatlashib turgan bo‘lsa, shu moyning zichligini (g/sm^3) aniqlang.
A) *0,9* B) *0,7* C) *0,8* D) *1*

28. Maydonining energiyasi 2 J bo‘lishi uchun induktivligi 1 H bo‘lgan drossel chulg‘amidagi tok kuchi (A) qancha bo‘lishi kerak?
A) *1,5* B) *3* C) *2* D) *4*

29. Gorizontga nisbatan 53° burchak ostida υ_0 tezlik bilan otilgan jismning 20 m balandlikdan erkin tushgan jism bilan uchish vaqtlari teng bo‘lsa, υ_0 ni (m/s) toping. $cos53°$=0,6
A) *16,3* B) *12,5* C) *13,4* D) *19,2*

30. Qizil yorug‘lik nuri (λ =700 nm) va rentgen nuri (λ =10^{-10} m) ning energiyalari nisbati $\frac{E_c}{E_r}$ qanchaga teng?
A) $1{,}4\cdot10^{-4}$ B) $7\cdot10^{-4}$ C) $1{,}4\cdot10^{-3}$ D) $7\cdot10^{-5}$

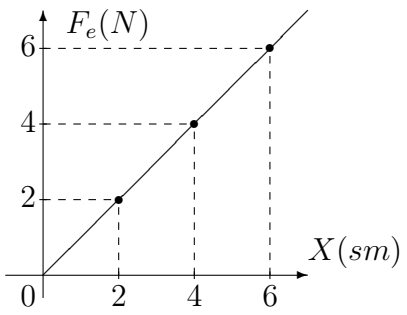
31. Gaz boshlangich 6 l hajmdan 4 l gacha izotermik siqilgan. Bunda uning bosimi $2\cdot10^5$ N/m^2 ga ortgan. Gazning boshlang‘ich bosimi (N/m^2) qanday?
A) $2\cdot10^5$ B) $20\cdot10^5$ C) $4\cdot10^6$ D) $4\cdot10^5$

32. v tezlik bilan borayotgan odam ko‘cha chiroqlari tagidan o‘tib bormoqda, chiroqlar yerdan H balandlikka osilgan. Odamning balandligi h ga teng bo‘lsa, uning yerdagi soyasining uchki qismi qanday tezlikda harakatlanadi?
A) $\frac{H-h}{H}v$ B) $\frac{H}{H-h}v$ C) $\frac{H+h}{H}v$ D) v

33. Normal sharoitda bitta gaz molekulasi ilgarilanma harakatining o‘rtacha kinetik energiyasini (J) hisoblang.
A) $5{,}74\cdot10^{-21}$ B) $7{,}54\cdot10^{-20}$ C) $5{,}7\cdot10^{-20}$ D) $7{,}54\cdot10^{-21}$

34. Induksiya vektorining moduli 0,8 T, yo’nalishi gorizontal bo’lgan bir jinsli magnit maydonida uzunligi 25 sm, massasi 16 g bo’lgan gorizontal sim muallaq turishi uchun simning ko’ndalang kesim yuzasi orqali har sekundda nechta elektron oqib o’tishi kerak? g=10 m/s^2.
A) $5\cdot10^{18}$ B) $1{,}2\cdot10^{17}$ C) $2{,}5\cdot10^{18}$ D) $2{,}5\cdot10^{17}$

35. Grafikdan foydalangan holda elastiklik kuchining bajargan ishini toping.



A) 0,2 B) 0,18 C) 0,8 D) 0,08

36. Ichiki qarshiligi 880 Ω bo‘lgan galvonometrning sezgirligini 11 marta kamaytirish uchun shunt qarshiligi (Ω) qancha bo‘ladi?
A) 88 B) 100 C) 800 D) 80

INGLIZ TILI

1. Choose the answer which correctly completes the sentence.
He was a student ... to do well in his examinations.
A) *determining* B) *determine*
C) *determined* D) *to determine*

2. Choose the answer which correctly completes the sentence.
If we lived in the country, we ... a lot of animals.
A) *would have* B) *will have* C) *had got*
D) *had*

3. Choose the answer which correctly completes the sentence.
The hotel owner informed us that he ... the police already.
A) *is going to call* B) *had called*
C) *was going to call* D) *has called*

4. Choose the answer which correctly completes the sentence.
Isabel travels by train because she is terrified ... flying.
A) *of* B) *by* C) *for* D) *from*

5. Choose the answer which correctly completes the sentence.
She never allowed herself to get depressed ... all her problems.
A) *nevertheless* B) *whereas* C) *as for*
D) *despite*

6. Choose the answer which correctly completes the sentence.
Our guests didn’t leave until 2 a.m., so they ... have enjoyed themselves.
A) *can’t* B) *must* C) *should* D) *ought*

7. Choose the answer which correctly complete the sentence.
The policeman saw her ... something from the floor.
A) *pick up* B) *be picking* C) *picked up*
D) *to pick up*

8. Choose the answer which correctly complete the sentence.
The policeman asked who was the ... person to see the man alive?
A) *later* B) *last* C) *latest* D) *late*

9. Choose the answer which correctly completes the sentence.
He says he is feeling tired all the time, but physically the doctors can't find ... wrong with him.
A) *any* B) *nothing* C) *something*
D) *anything*

10. Choose the answer which correctly complete the sentence.
Those keys don't belong to you, ... they?
A) *are* B) *aren't* C) *do* D) *don't*

11. Choose the answer which correctly completes the sentence.
The teacher said: "Paris is the capital of France".
The teacher said that ... the capital of France.
A) *if Paris is* B) *Paris is*
C) *when Paris was* D) *was Paris*

12. Choose the answer which correctly complete the sentence.
It looks like rain. Have ... look at the sky.
A) *an* B) *a* C) *the* D) -

13. Choose the answer which correctly completes the sentence.
He was very tired. Otherwise, he ... to the party with us last night.
A) *would go* B) *would have gone* C) *went*
D) *would be going*

14. Choose the answer which correctly completes the sentence.
The extent of Christina's knowledge on various complex subjects ... us.
A) *surprise* B) *to surprise* C) *surprising*
D) *surprises*

15. Choose the answer which correctly complete the sentence.
The woman must have been very ... when she was young.
A) *attracted* B) *attract* C) *attractive*
D) *attraction*

16. Choose the answer which correctly completes the sentence.
He hardly recognised Amanda! She ... blonde.
A) *has had her hair dyed*
B) *had to dye her hair* C) *dyed your hair*
D) *had her hair to dye*

17. Choose the answer which correctly complete the sentence.
I hope you know that you ... come with me if you don't want to.
A) *don't have to* B) *mustn't* C) *can't*
D) *don't need*

18. Choose the answer which correctly complete the sentence.
I am fond of ... for walks in bad weather.
A) *have gone* B) *going* C) *went* D) *to go*

19. Choose the answer which correctly completes the sentence.
I'm finally used ... on an electric stove after having a gas one for a long time.
A) *cooking* B) *to cook* C) *to cooking*
D) *cooked*

20. Choose the answer which correctly complete the sentence.
At the circus the children were kept ... by clown acts.
A) *amuse* B) *to amuse* C) *amused*
D) *amusing*

21. Choose the answer which correctly complete the sentence.
Neil Armstrong was the first man on ... Moon.
A) *a* B) *the* C) - D) *an*

22. Choose the answer which correctly completes the sentence.
When Alice was small, she ... of darkness and always slept with the light on.
A) *had afraid* B) *used to be afraid*
C) *had been afraid* D) *afraid*

23. Choose the answer which correctly completes the sentence.
There was a conference in the Institute.
A number of teachers ... there.
A) *be sent* B) *is sent* C) *were sent*
D) *are sent*

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

Mountains have always evoked awe and inspired artists and adventurers throughout human existence. More recent research has led to important new insights into how mountains, the most magnificent of the Earth's formations, came to be the way they are. Mountains are created and shaped, it now appears, not only by the movements of the vast tectonic plates that make up the Earth's exterior but also by factors such as climate and erosion. In particular, the interactions between tectonic, climatic and erosional processes exert strong control over the shape and maximum height of the mountains as well as the amount of time necessary to build - or destroy - a mountain range. Paradoxically, the shaping of mountains seems to depend as much on the destructive forces of erosion as on the constructive power of tectonics.

24. As it is stated in the passage, recent research has ...
A) *created more questions about the way mountains were formed.*
B) *demonstrated that tectonic plates move usually in one direction*
C) *confirmed what we already knew about mountain formations.*
D) *enabled us to have better ideas about how mountains are shaped.*

25. The movements of tectonic plates, the climate and erosion are factors ...
A) *that help mountains reach great heights.*
B) *that collectively form the interior of the Earth.*
C) *responsible for all the interactions that occur on the Earth's exterior.*
D) *that are effective in the shaping and creation of mountains.*

26. We can understand from the passage that the destructive forces of erosion and the constructive power of tectonics ...
A) *take an equal amount of time to build a mountain.*
B) *can create mountain ranges with different climates.*
C) *are not sufficient to build mountain ranges.*
D) *both play an equal role in the formation of mountains.*

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

Johannes Brahms is a German composer, pianist, and conductor. His works (27) ... four symphonies, songs and concertos for piano and for violin. He (28) ... and conducted his own works.

27.
A) *include* B) *includes* C) *are included*
D) *will include*

28.
A) *performed* B) *recognized* C) *designed*
D) *attempted*

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

A forest is a thickly wooded area. Forests have a wide (29)... of plants and animals living among the trees. Forests that like cooler climates (30)... largely in the northern hemisphere, far north of the equator. Forest floors are shady places and it can be hard (31)... plants to grow.

29.
A) *variable* B) *vary* C) *variety*
D) *various*

30.
A) *find* B) *are found* C) *were found*
D) *found*

31.

A) *for* B) *of* C) *from* D) *by*

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 Gimbles 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, Ladislas and Georg Biro, two Hungarian brothers, **came up with** a solution to this problem. In 1935 Ladislas 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. Ladislas and Georg set about making models of new pen designs and creating better inks to use in them. Ladislas 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 cost a great deal of money to manufacture*
B) *they could not write on ordinary paper*
C) *they were affected by weather conditions*
D) *the technology to manufacture them did not exist*

33. What does **"came up with"** in bold mean?

A) *to suggest* B) *to reject*
C) *to move towards* D) *to get rid of*

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 Deamos, 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 is larger than Earth*

B) *Martian soil is rocky*

C) *It takes longer for Mars to circle the Sun than it takes Earth*

D) *Mars has two moons*

35. Man-made canals were supposedly discovered by ...

A) *Viking I* B) *Martian* C) *Schiaparelli*
D) *Phobos*

36. Mars has been nicknamed as ...

A) *The Red Planet* B) *Martian* C) *Deimos*
D) *Viking I*