



METROPOL
متروپل وزرا

سؤالات آزمون یوس

دانشگاه بالیکسیر

۲۰۱۷



BALIKESİR
ÜNİVERSİTESİ
YÖS SORULARI
2017



T.C.
BALIKESİR ÜNİVERSİTESİ

YABANCI UYRUKLU ÖĞRENCİ SINAVI
TEMEL ÖĞRENME BECERİLERİ TESTİ
9 NİSAN 2017

THE ENTRANCE EXAMINATION FOR FOREIGN STUDENTS
THE BASIC LEARNING SKILLS TEST
APRIL 9, 2017

امتحان القبول للطلاب الأجانب
امتحان مهارات التعلم الأساسية
9 أبريل 2017

A

Sınav süresi 120 dakikadır. / The examination time is 120 minutes. / مدة الامتحان 120 دقيقة

ADAYIN / APPLICANT'S

ADI / NAME / اسم المتقدم للامتحان :

SOYADI / SURNAME / اللقب :

BAUNYÖS NUMARASI / BAUNYÖS NUMBER / رقم الاختبار :

SINAV SALONU NO / EXAMINATION ROOM NO / رقم صالة الاختبار :

Adınızı, soyadınızı, BAUNYÖS numaranızı ve sınav salonunuzu yukarıya yazınız.

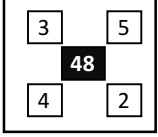
Write your name, surname, BAUNYÖS number, examination room number in the appropriate places above.

اكتب اسمك ولقبك ورقمك في الاختبار ورقم صالة الاختبار في الجدول السابق

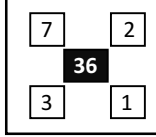
1. Belli bir kurala göre oluşturulmuş sayı örüntüsünde III. şekilde soru işaretinin (?) yerine hangi sayı getirilmelidir?

The shape-number pattern below is formed with regards to a rule, Which number is to be put in place of "?" on shape III?

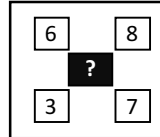
أي رقم يمكننا كتابته مكان علامة الاستفهام وفقا للقاعدة المتبعة في الشكلين الأول والثاني؟



Şekil I
Figure I



Şekil II
Figure II



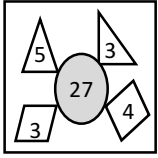
Şekil III
Figure III

- A) 49 B) 81 C) 90 D) 122 E) 140

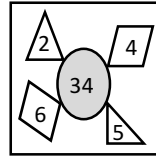
2. Aşağıda belli bir kurala göre oluşturulan şekil-sayı örüntüsü verilmiştir.

The shape-number pattern below is formed with regards to a rule.

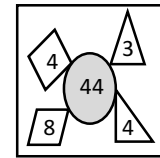
وفقا للأشكال التالية يمكننا استنتاج قاعدة .



Şekil I
Figure I



Şekil II
Figure II

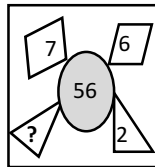


Şekil III
Figure III

Buna göre IV. şekilde soru işareti ile belirlenen yere hangi sayı getirilmelidir?

Which number is to be put in place of "?" on shape IV?

وفقا للقاعدة الموجودة في الأشكال السابقة , أي عدد يجب وضعه مكان علامة الاستفهام؟



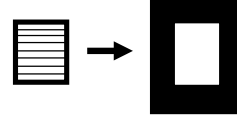
Şekil IV
Figure IV

- A) 4 B) 5 C) 7 D) 8 E) 9

3. Aşağıda I ve II. şekiller arasındaki ilişkinin benzeri III. şekille hangisi arasında vardır?

Which of the following shapes is to be put in place to form a similar relation as shown between figure I and II?

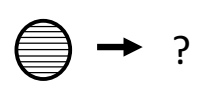
توجد علاقة تشابه بين الشكلين الأول والثاني , وفقا لهذه العلاقة فأأي شكل من الأشكال يتوافق مع الشكل الثالث ؟



Şekil I
Figure I



Şekil II
Figure II



Şekil III
Figure III

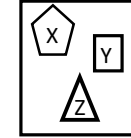
Şekil IV
Figure IV



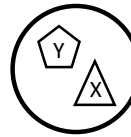
4. Aşağıda şekil-sayı ilişkisini gösteren iki örnek verilmiştir.

Two examples are shown below with regards to the shape-number pattern.

وفقا للشكلين التاليين اختر الجواب الصحيح

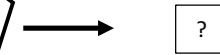


$$\frac{1}{5X} + 4Y + 3Z$$



$$\frac{1}{5Y} - 3X$$

olduğuna göre; / so; / وفقا لهذا

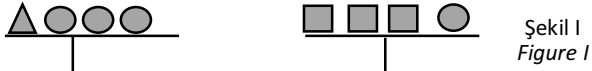


- A) 1/70 B) 1/50 C) 32 - 1/18
D) 5/14 E) 5/50

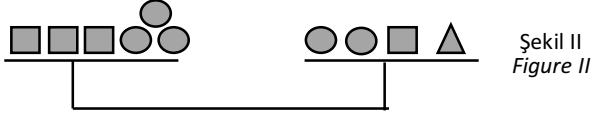
5. Aşağıdaki şekillerde denge vardır.

The figures below are in balance.

بين الأشكال التالية علاقة توازن



Şekil I
Figure I

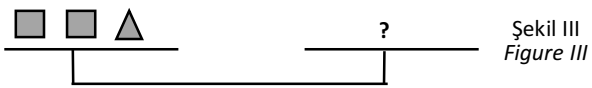


Şekil II
Figure II

olduğuna göre Şekil III'de soru işareti ile belirlenen yere hangisi gelmelidir?

Which of the following should be put not to break the balance?

وفقا لعلاقة التوازن السابقة اختر الشكل المناسب مع الشكل رقم 3 ؟



Şekil III
Figure III

- A) B) C) D) E)

6. x, y tamsayı / integer / عدد صحيح

$$x \neq y, \quad x > 0, \quad y > 0$$

$$(6x + 4y + 5) - (4x - 3y + 2) = 27$$

olduğuna göre; / so; / وفقا لهذا

$$x \cdot y = ?$$

- A) 16 B) 14 C) 12 D) 10 E) 8

7. Aşağıdaki matriste harfler arasında işlem x ile belirlenmiştir.

Below matrix represent the operation x .

الحروف في الجدول التالي توضح القيمة الخاصة بـ x

x	a	b	c	d
a		$3a$		
b			24	
c				$8a$
d	$4a$			

Tablodaki her bir sayı pozitif tam sayı olduğuna göre
Every character in the table above is a natural number

في الجدول كل الأعداد تحمل صيغ موجبة- ايجابية

$$a = ?$$

- A) 8 B) 6 C) 5 D) 4 E) 2

8. Aşağıdaki her bir şekil pozitif bir tam sayıyı göstermektedir.

Each figure below represents a natural number.

في كل شكل من الأشكال التالية عدد إيجابي تام

$$6 \otimes = 2 \otimes = 4 \oplus = \star$$

olduğuna göre; / so; / وفقا لهذا

$$\frac{6 \otimes + \oplus}{\star + \otimes} = ?$$

- A) $\frac{5}{18}$ B) $\frac{7}{16}$ C) $\frac{6}{16}$ D) $\frac{4}{19}$ E) $\frac{5}{14}$

9. I. sütunda verilen sayılar II. sütundaki sayılarla eşleşmektedir.

The first and second columns match each other.

العمود الأول يتطابق مع العمود الثاني

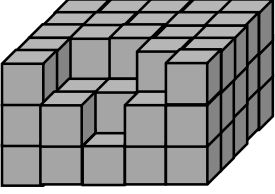
Sütun I Column I	Sütun II Column II
ENTARİ	192348
SAFİYE	287308
FEDAYİ	856973
FERİDE	280943
NADİRE	590378

olduğuna göre; / so; / وعلى هذا

$$T A S F İ Y E = ?$$

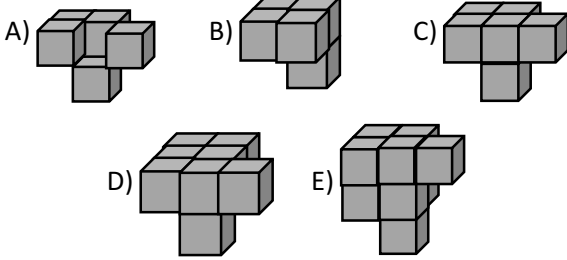
- A) 6912348 B) 8976503 C) 6712368
D) 5846270 E) 7924685

10.



Yukarıdaki küpü tamamlayacak şekil hangisidir?
Which shape is suitable for completing the above cube?

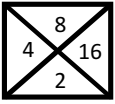
أي شكل من الأشكال التالية يتم المكعب السابق؟



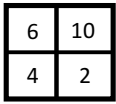
11. Şekillerdeki sayılar belli bir kurala göre oluşturulmuştur.

The numbers in the boxes below are formed according to a rule.

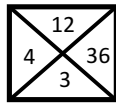
في الأشكال التالية توجد أعداد وفقا لقاعدة محددة



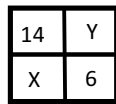
Şekil I
Figure I



Şekil II
Figure II



Şekil III
Figure III



Şekil IV
Figure IV

IV. şekilde X ve Y değerleri kaçtır?

What is X and Y values in Figure IV?

في الشكل الرابع كم قيمة

X= ?, Y=?

A) X= 2, Y=22 B) X= 8, Y=22 C) X= 6, Y=20

D) X= 2, Y=20 E) X= 8, Y=20

12. Aşağıdaki harflerin her biri bir rakamı temsil etmektedir.

Each character below corresponds to a number.

كل حرف من الحروف التالية يمثل عددا ما

$K \neq L \neq M \neq N \neq R \neq S \neq T$

$(KLMNRST) \times (2) = LMKRTNS$

olduğuna göre; / so; / وفقا لهذا

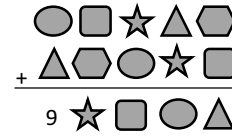
$K + L + M + N + R + S + T = ?$

A) 36 B) 33 C) 29 D) 27 E) 21

13. Her bir şekil bir rakamı göstermektedir.

Each shape represents a number.

كل شكل يمثل رقما



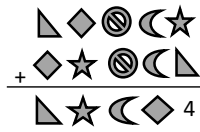
9 ☆ □ ○ ▲ = ?

A) 93136 B) 91637 C) 96537 D) 97635 E) 97136

14. Her bir sembol bir rakamı göstermektedir.

Each symbol below corresponds to a number.

كل رمز يمثل رقما

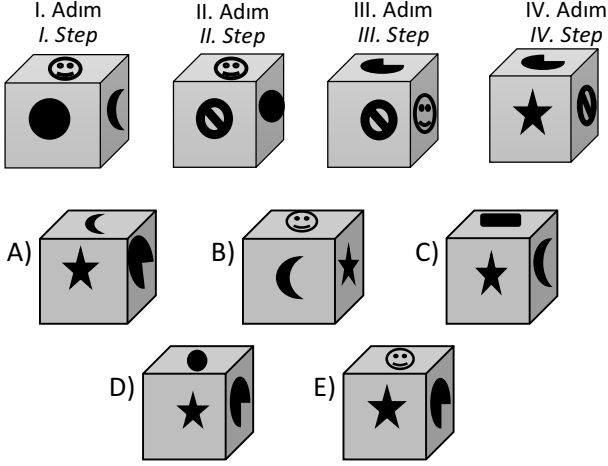


▲ + ☆ + ● + ◆ = ?

A) 32 B) 24 C) 17 D) 9 E) 6

15. Belli bir ilişkiye dayalı oluşturulan şeklin V. adımı hangisi olur?
Which of the following takes the V. step in the shape-pattern below?

بالنسبة للعلاقة التالية اختر الجواب الصحيح

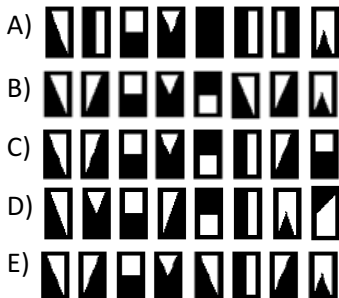


16. Aşağıdaki şekilde kaç tane üçgen (Δ) vardır?
How many triangles are there in the shape below?
كم مثلثا في الشكل التالي



- A) 12 B) 11 C) 10 D) 9 E) 8

17. Aşağıdakilerden hangisi "M E R H A M E T" sözcüğünün şekillerle gösterilmiş halidir?
Which of the following represents the word "MERHAMET" in terms of shapes?
أي شكل من الأشكال التالية يمثل كلمة "MERHAMET"



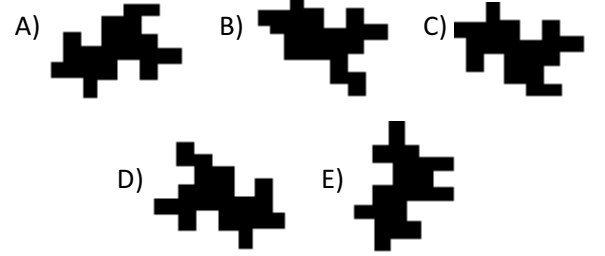
18.



Yukarıdaki şeklin tamamlayıcı hangisidir?

Which of the following completes the above shape?

أي شكل من الأشكال التالية يتمم الشكل السابق ؟



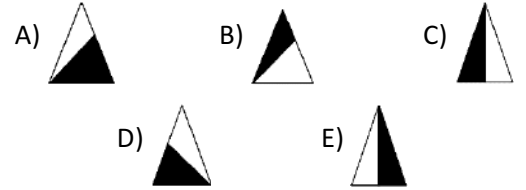
19.



Yukarıdaki şekilde boş bırakılan parça hangisidir?

Which of the followings should be put in place to complete the above shape?

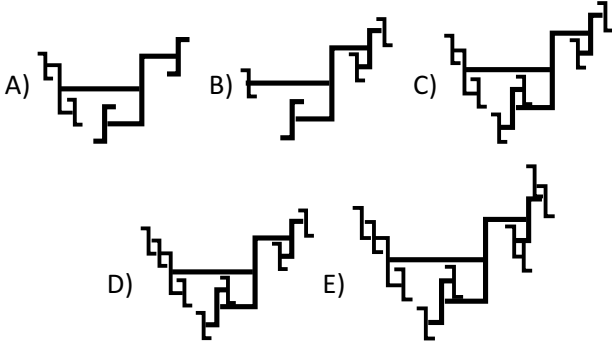
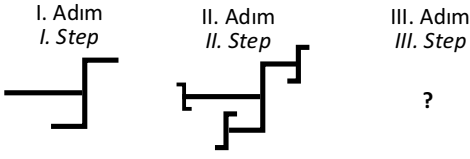
في الشكل السابق أي من الأشكال التالية يتمم المكان الفارغ ؟



20. Aşağıdaki şeklin III. adımında hangi şekil yer almalıdır?

Which shape will be formed in the third step?

وفقا للشكل الأول والثاني أي شكل يجب أن يوضع في المكان الثالث؟

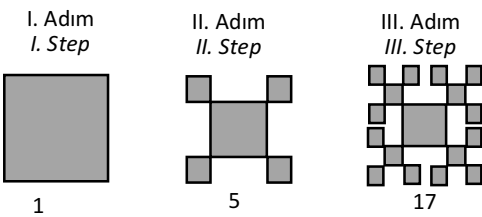


21. Aşağıda ilk 3 adımı verilen şeklin V. adımındaki karelerin (■) toplamı kaçtır?

The three steps of the shape are represented below.

How many squares are to be formed in the fifth step?

بالنسبة للأشكال الثلاثة التالية كم مجموع الوحدة المربعة



A) 273 B) 161 C) 156 D) 137 E) 121

22. Aşağıdaki üç şekil arasında bir ilişki vardır.
A relation is present in the shapes below.

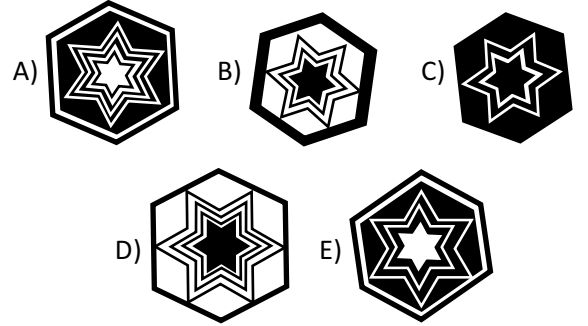
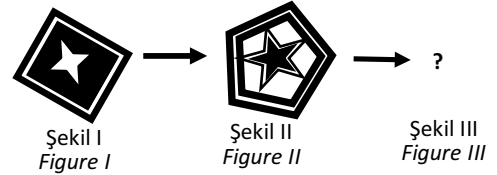
توجد علاقة بين الأشكال الثلاثة التالية



Buna göre aşağıdaki III. Şekil hangisi olmalıdır?

Taking into consideration the same relation above, which shape is the third one?

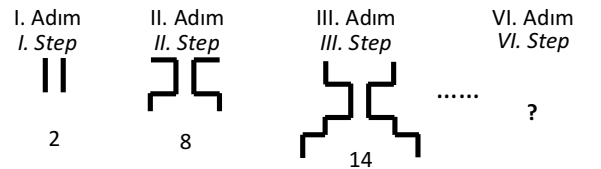
وفقا لهذا اختر الشكل الثالث



23. Aşağıda verilen fraktalın VI. adımında kaç doğru parçası vardır?

How many lines are there in the sixth step?

بالنسبة للأشكال الثلاثة التالية كم عدد الخطوط في الشكل الرابع؟



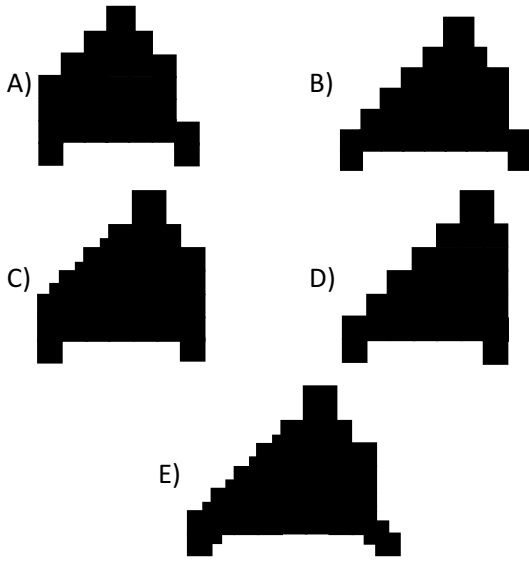
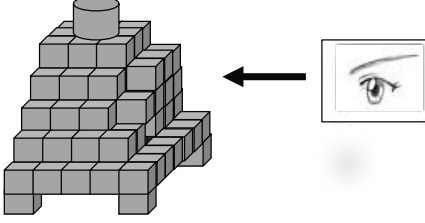
A) 26 B) 32 C) 38 D) 42 E) 44

24. Aşağıdaki şeklin ok yönündeki iz düşümü (görünümü) hangisidir?

Which of the following is the projection of this shape in the direction shown?

في الشكل التالي وفقا للمنظور

اختر الجواب الصحيح ؟



25. Aşağıdaki işlem dizisinde belli bir kural vardır.

The operation sequence below has a rule.

توجد قاعدة في العملية التالية

$$4 \ominus 6 = 34$$

$$2 \ominus 5 = 17$$

$$3 \ominus 4 = 19$$

olduğuna göre; / so; / وفقا لهذا فإن

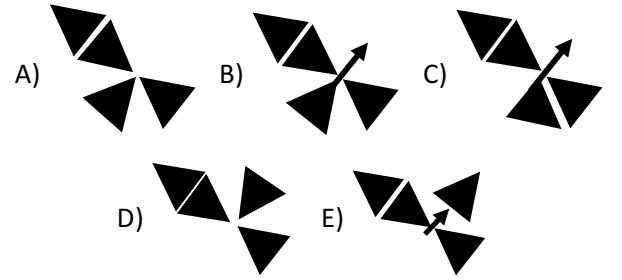
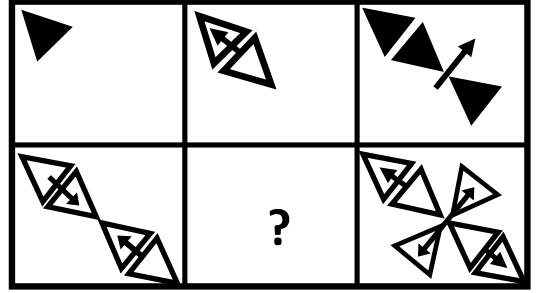
$$6 \ominus 9 = ?$$

- A) 48 B) 54 C) 60 D) 63 E) 69

26. Aşağıda verilen şekil matrisinde “?” işaretinin yerine hangisi gelmelidir?

Which of the following should take the place of the question mark in the matrix table?

أي شكل يمكن أن يحل محل علامة الاستفهام ؟



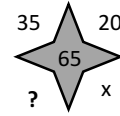
27. A şeklindeki sayılar belli bir kurala göre dizilmiştir. B şeklinde “?” yerine gelecek sayı kaçtır?

The numbers in figure A are put according to a rule and which number should be put in place of the question mark in figure B?

رتبت الأعداد في الشكل الأول وفق قاعدة ما فاختر الرقم الذي يجب وضعه مكان علامة الاستفهام في الشكل الثاني



Şekil A
Figure A



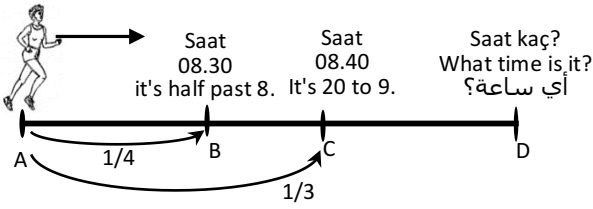
Şekil B
Figure B

- A) 5 B) 15 C) 45 D) 50 E) 55

28. Atlet A noktasından hareket edip B noktasına geldiğinde yolun 1/4 ünü kat ediyor. C noktasına geldiğinde yolun 1/3 ünü tamamlamış oluyor. B noktasına geldiğinde saat 8.30, C noktasına geldiğinde saat 8.40 ise D noktasına geldiğinde saat kaçtır?

The athlete moves from A to B and the distance equals to 1/4 of the total. When it arrives C, the distance equals to 1/3. When it arrives B, the time is 8:30. When it arrives C, the time is 8:40. What time is it when the athlete arrives to D?

المتسابق عند انطلاقه من النقطة أ للنقطة ب فإنه يقطع ربع المسافة وعند وصوله للنقطة ج فإنه يقطع ثلث المسافة. وصل المتسابق للنقطة ب في الساعة الثامنة والنصف، ووصل للنقطة ج في الساعة الثامنة وأربعين دقيقة، فمتى يصل للنقطة د؟



- A) 9.00 B) 9.15 C) 9.30 D) 9.45 E) 10.00

29. Aşağıdaki sayılar belli bir kurala göre dizilmiştir. “?” ile belirtilen yere hangi sayı gelmelidir?

The numbers below are sorted according to a rule, which number is?

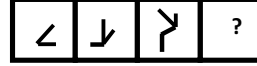
وفقا للقاعدة الخاصة بالأعداد التالية اختر الجواب الصحيح
0 - 1 - 3 - 5 - 8 - 11 - 14 - 18 - 22 - 26 - 30 - ?

- A) 32 B) 34 C) 35 D) 36 E) 40

30. $0,154 = ?$

- A) 154/1000 B) %154 C) 1/154
D) %1,54 E) 154/100

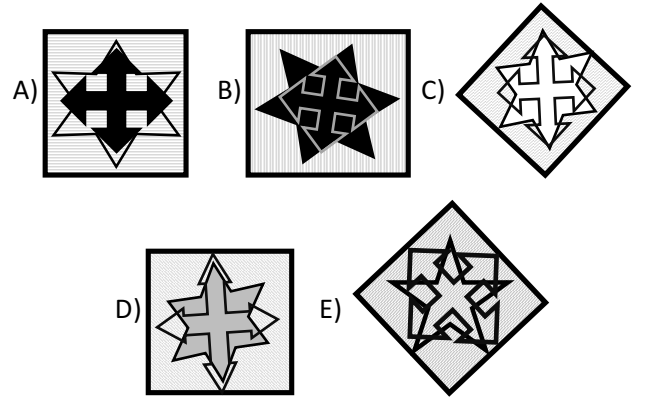
- 31.



- A) B) C)
D) E)

32. Aşağıdaki şekillerden hangisi diğerlerinden farklıdır?

Which of the following shapes is different?
أي الأشكال التالية مختلف؟



33. $1 \leq K \neq L \neq M \neq N \neq O \neq P \neq R \neq S \neq T \leq 9$
 $\{[(K + L / M) - (N - O / P)] + (R - S)\} \times T = 72$
ise; / so; / وفقا لهذا
 $K + T + R = ?$

- A) 16 B) 18 C) 21 D) 22 E) 23

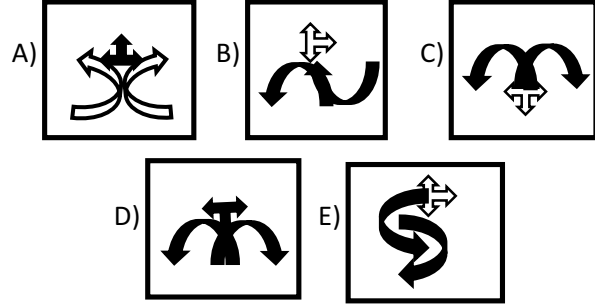
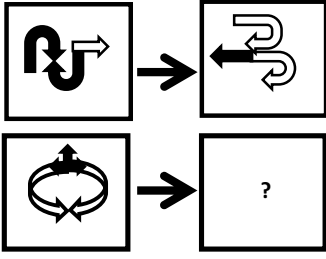
34. Her bir şekil farklı bir rakamı göstermektedir.
Each figure shows a different number.

كل شكل يمثل رقما مختلفا

$$\begin{array}{rcl} \star \star \star \star \star & > 98675 \\ \blacksquare \blacktriangle \blacklozenge \blackhexagon \bullet & < 12350 \\ \hline \star \bullet \blacklozenge \blacktriangle \bullet & = ? \end{array}$$

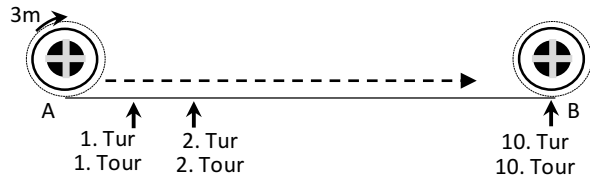
- A) 86425 B) 86416 C) 86475 D) 87465 E) 85426

35.



36. Çevresi 3m olan bir çember A noktasından B noktasına 10. turda varmış oluyor.
Total sphere of circle A is 3m and it arrives to point B at its tenth lap

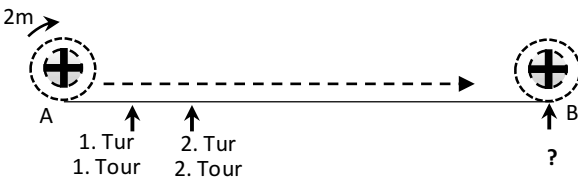
يوجد دائرة محيطها 3 متر تقطع المسافة بين أ و ب في عشر دورات كاملة



Buna göre aşağıda çevresi 2m olan bir çember aynı yolu kaçınıcı turda tamamlamış olur?

At how many laps a circle with 2m total sphere goes from point A to point B?

وفقا للقاعدة السابقة كم دورة تقطعها دائرة محيطها 2 متر



- A) 10 B) 12 C) 14 D) 15 E) 20

37.

⊙	⊖	Δ	⊖	£	@	⊖
Δ	⊖	@	⊙	⊖	⊖	⊙
⊖	⊙	@	⊖	£	@	⊖
@	Δ	⊖	£	⊖	@	£
Δ	@	£	⊖	⊖	⊙	⊖
⊖	Δ	@	⊖	@	£	⊙
£	⊖	Δ	⊖	@	Δ	⊖

$$\begin{matrix} K & = & \ominus \\ M & = & @ \end{matrix}$$

$$\begin{matrix} L & M & N \\ & & M \end{matrix}$$

$$\begin{matrix} K & \\ K & M \\ & M \end{matrix}$$

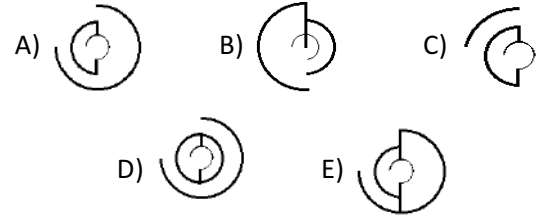
$$\begin{matrix} L & = & ? \\ N & = & ? \end{matrix}$$

- A) L = ⊙, N = Δ B) L = Δ, N = £
C) L = £, N = Δ D) L = ⊖, N = £
E) L = ⊙, N = ⊖

38. Aşağıdaki denkliğin sağlanabilmesi için soru işareti (?) yerine hangi şekil gelmelidir?

Which shape should be put in place of question mark?
أي من الأشكال التالية يجب وضعه مكان علامة الاستفهام في المعادلة التالية ؟

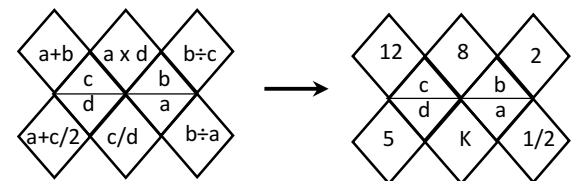
$$\begin{matrix} \text{Circle with cross} \\ \text{Circle with cross} \end{matrix} + \begin{matrix} \text{Circle with cross} \\ \text{Circle with cross} \end{matrix} \equiv \begin{matrix} \text{Circle with cross} \\ \text{Circle with cross} \end{matrix} + ?$$



39. Aşağıda verilen işlemde her bir sembol tam bir sayıyı göstermektedir.

Every symbol below represents a natural number.

كل رمز يمثل عددا



K = ?

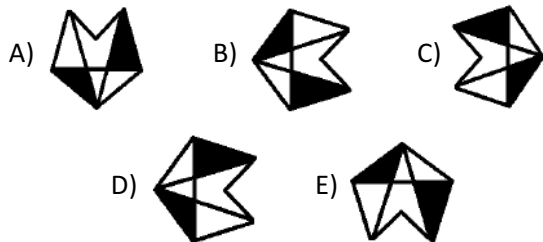
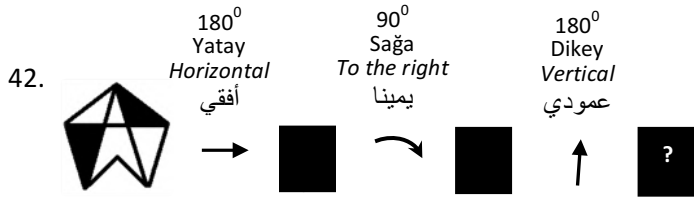
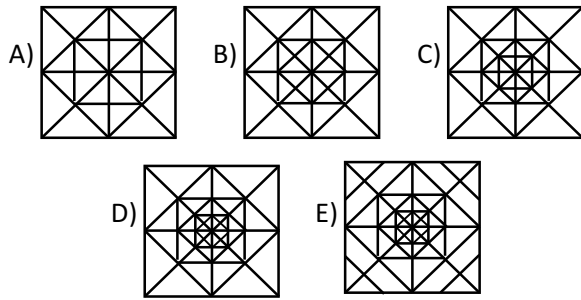
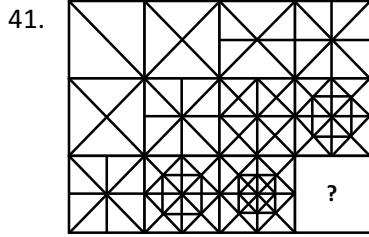
- A) 2 B) 2/3 C) 4 D) 4/5 E) 3/4

40.

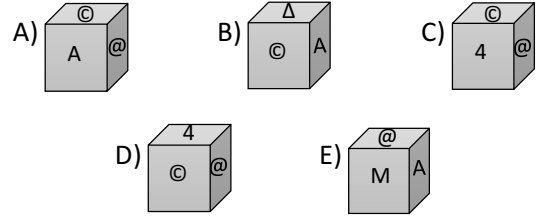
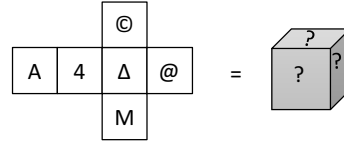
X	a	b	c
a	$b.c+12$	$2(b.c)$	
b		$4(a.c)-b$	
c			$a+3$

$$a = ? \quad b = ?$$

- A) $a = 8, b = 5$ B) $a = 3, b = 5$ C) $a = 3, b = 6$
 D) $a = 8, b = 6$ E) $a = 6, b = 8$



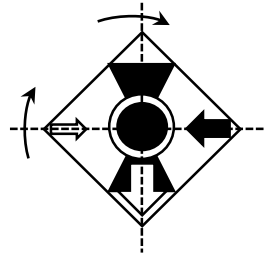
43.



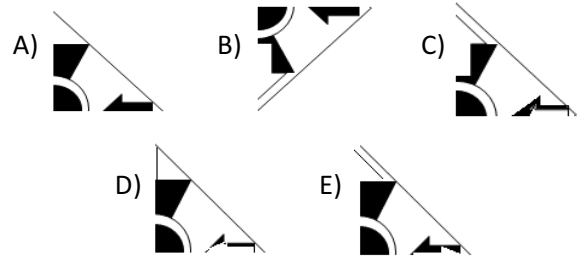
44. Aşağıdaki şekil, nokta nokta çizilen kesimlerden üst üste katlanıyor. Şeklin görüntüsü nasıl olur?

The shape below is folded from the dashed lines. Which shape is formed in the aftermath?

الشكل التالي في حال تقسيمه ووضع أقسامه فوق بعضها بشكل أفقي كيف يكون ؟

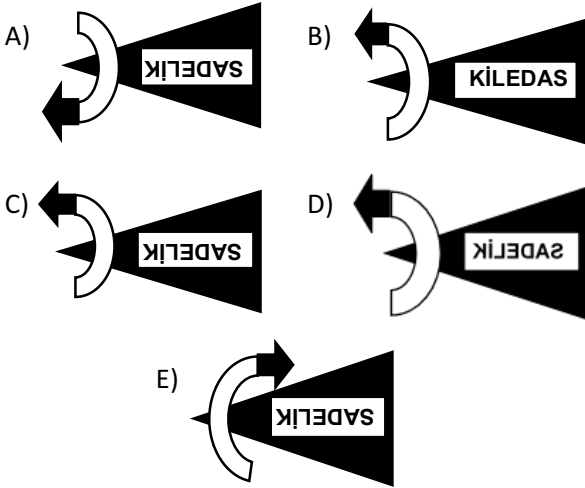
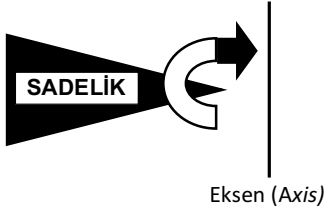


Kesikli çizgilerden katlanır
Folded from dashed lines



45. Aşağıda verilen şeklin eksene göre simetrisi hangisidir?

What is the axis symmetry of the shape below?
أي الأشكال التالية بالنسبة للمحور يمثل نظيره العكسي؟



46. $100\frac{1}{4} - 200\frac{1}{3} + 101\frac{1}{12} = ?$

- A) 1 B) 2 C) $\frac{7}{3}$ D) $\frac{5}{2}$ E) 3

47. $\sqrt[3]{4\sqrt{2\sqrt[4]{8}}} = ?$

- A) $2\frac{3}{4}$ B) $2\frac{19}{24}$ C) $2\frac{5}{6}$ D) $2\frac{7}{8}$ E) $2\frac{23}{24}$

48. $\left(1 - \frac{a}{a+b}\right) : \left(1 - \frac{b}{a+b}\right) = ?$

- A) $\frac{a+b}{b}$ B) $\frac{a+b}{a}$ C) $\frac{a}{b}$ D) $\frac{b}{a}$ E) 1

49. $\frac{2^4 + 2^5 + 2^6}{2^2 + 2^3 + 2^4} = ?$

- A) 2 B) 4 C) 8 D) 16 E) 32

50. $2017^2 - 2016^2 = ?$

- A) 1 B) 2015 C) 4033 D) 4041 E) 4049

51. $1 + \frac{24}{2 + \frac{12}{5 + \frac{6}{x-2}}} = 5 \Rightarrow x = ?$

- A) -2 B) -1 C) 0 D) 1 E) 2

52. $28x = \pi$
olduğuna göre; / so; / وعلى هذا فإن

$\frac{\sin 8x + \sin 6x}{\cos 8x + \cos 6x} = ?$

- A) -1 B) 0 C) $\frac{1}{\sqrt{3}}$ D) 1 E) $\sqrt{3}$

53. $a \ominus b = a^2 + 2b - ab$

$a \ominus b = b^2 + 2a - ab$

olduğuna göre; / so; / وعلى هذا فإن

$(1 \ominus 0) \ominus (1 \ominus -1) = ?$

- A) 5 B) 4 C) 3 D) 2 E) 1

54. $i^2 = -1$

olduğuna göre; / so; / وعلى هذا فإن

$\left(\frac{1-i}{1+i}\right)^{13} = ?$

- A)
- $2i$
- B)
- i
- C) 1 D)
- -1
- E)
- $-i$

55. $y < 0 < x \Rightarrow |y| - |x - y| + |x| = ?$

- A)
- x
- B)
- y
- C)
- $-x$
- D)
- $-y$
- E) 0

56. $f(x) = 3x - 11$

olduğuna göre; / so; / وعلى هذا فإن

$f(4) + f^{-1}(1) = ?$

- A) 6 B) 5 C) 4 D) 3 E) 2

57. $\frac{0,005}{0,01} - \frac{1,44}{1,2} + 0,7 = ?$

- A) 2 B) 1 C) 0 D)
- -1
- E)
- -2

58. $\frac{\left(\frac{5}{17} - \frac{13}{19} + \frac{20}{11}\right) - \left(\frac{22}{17} + \frac{9}{11} + \frac{25}{19}\right)}{2} = ?$

- A)
- -2
- B)
- $-\frac{3}{2}$
- C)
- -1
- D) 0 E) 2

59. $\lim_{x \rightarrow -2} \left(\frac{\sin \pi x}{x^2 - 4}\right) = ?$

- A) 0 B)
- $-\frac{\pi}{2}$
- C)
- $-\pi$
- D)
- $-\frac{\pi}{4}$
- E)
- -1

60. $\int_1^7 \frac{1}{x+1} dx = ?$

- A)
- $\ln 8$
- B)
- $\ln 6$
- C)
- $\ln 4$
- D)
- $\ln 2$
- E) 0

61. $(2017)^{2016} \equiv x \pmod{13}$

olduğuna göre; / so; / وعلى هذا فإن

$x = ?$

- A) 0 B) 1 C) 2 D) 3 E) 4

62. $f(x) = x \cdot (x+1) \cdot (x+2) \cdot (x+3)$

olduğuna göre; / so; / وعلى هذا فإن

$f'(-1) = ?$

- A) 2 B) 1 C) 0 D)
- -1
- E)
- -2

63. $x \neq -2, \quad x \neq -\frac{2}{3}$
 olduğuna göre; / so; / وعلى هذا فإن
 $3 - \frac{2}{2 + \frac{4x}{x+2}} = 1$

denklemini sağlayan x değeri kaçtır?

Which x value makes the equation?

ما الرقم المعادل لقيمة الحرف

- A) 2 B) -1 C) $-\frac{2}{5}$ D) $-\frac{1}{5}$ E) 0

64. $\prod_{n=1}^x a_n = 9^{x!}$

olduğuna göre; / so; / وعلى هذا فإن

$a_4 = ?$

- A) 9^{36} B) 9^{24} C) 3^{50} D) 3^{36} E) 3^{24}

65. $i^2 = -1$

olmak üzere; / so; / وعلى هذا فإن

$\left(i + \frac{i}{2}\right) \cdot \left(i + \frac{i}{3}\right) \cdot \left(i + \frac{i}{4}\right) \dots \left(i + \frac{i}{49}\right) = ?$

çarpımının sonucu kaçtır? / multiply=? /

كم ناتج عملية الضرب

- A) 25 B) $25i$ C) -25
 D) $-25i$ E) -50

66. $\lim_{x \rightarrow 0} \frac{x \cdot \sin 2x}{\tan^2 3x} = ?$

- A) $\frac{2}{3}$ B) $\frac{2}{9}$ C) $\frac{1}{3}$ D) $\frac{4}{27}$ E) $\frac{2}{27}$

67. ab iki basamaklı doğal sayı olmak üzere,
 ab is a two digit natural number

أعداد طبيعية a-b

$\frac{a, b}{ab} + \frac{ab}{0, ab} = ?$

- A) 1,01 B) 10,01 C) 100,1 D) 101 E) 101,01

68. $\frac{2x^2 + x - 1}{x^2 - 1} : \frac{2x^2 + 5x - 3}{x^2 + 2x - 3} = ?$

- A) 1 B) $\frac{2x-1}{x+1}$ C) $\frac{x+3}{x+1}$
 D) $\frac{x-1}{x+3}$ E) -1

69. $\prod_{k=-3}^{2n-3} \left(\frac{k+4}{k+5}\right) = \frac{1}{20}$

olduğuna göre; / so; / وعلى هذا فإن

$n = ?$

- A) 9 B) 10 C) 11 D) 12 E) 13

70. $\sum_{n=0}^{\infty} \frac{3^{n-1}}{5^n} = ?$

- A) $\frac{5}{2}$ B) $\frac{5}{3}$ C) $\frac{5}{4}$ D) $\frac{5}{6}$ E) $\frac{5}{8}$

71. $\int \frac{\cos x}{1 - \sin x} d(\sin x) = ?$

- A) $\sin x - x + c$ B) $-x - \sin x + c$
C) $x + \sin x + c$ D) $x - \cos x + c$
E) $\sin x - \cos x + c$

72. $A = \begin{bmatrix} 2 & -1 \\ 0 & 3 \end{bmatrix}$ $B = \begin{bmatrix} 4 & -2 \\ 1 & 3 \end{bmatrix}$

olduğuna göre; / so; / وفقاً لهذا

$\det(A.B) = ?$

- A) 84 B) 81 C) 80 D) 78 E) 75

73. $f(x) = x^2 \ln x$
olduğuna göre; / so; / وعلى هذا فإن
 $f''(1) = ?$

- A) 0 B) 1 C) 2 D) 3 E) 4

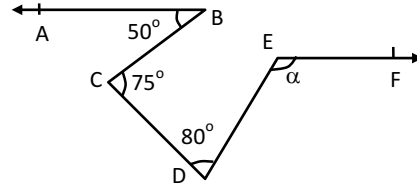
74. $\log_{abc} b = 3$
 $\log_{abc} c = 4$
olduğuna göre; / so; / وفقاً لهذا
 $\log_{abc} a = ?$

- A) -7 B) -6 C) -5 D) 4 E) 7

75. $5^x = 3^y \Rightarrow 3^{\frac{y}{x}} + 5^{\frac{x}{y}} = ?$

- A) 8 B) 14 C) 28 D) 34 E) 52

76.



$[BA \parallel EF, m(\widehat{ABC}) = 50^\circ, m(\widehat{BCD}) = 75^\circ$

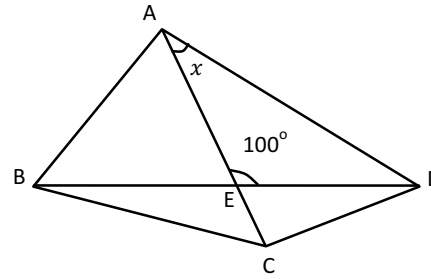
$m(\widehat{CDE}) = 70^\circ$

olduğuna göre; / so; / وفقاً لهذا

$m(\widehat{DEF}) = \alpha = ?$

- A) 100 B) 105 C) 110 D) 115 E) 120

77.



ABC eşkenar üçgen

ABC is an equilateral triangle

ABC هو مثلث متساوي الأضلاع

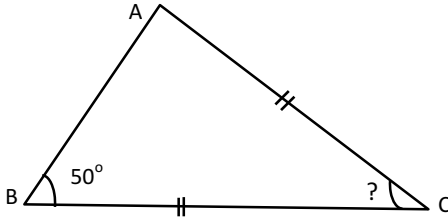
$|AB| = |CD|, m(\widehat{AED}) = 100^\circ$

olduğuna göre; / so; / وفقاً لهذا

$m(\widehat{CAD}) = x = ?$

- A) 30° B) 35° C) 40° D) 45° E) 50°

78.



ABC üçgeninde / In ABC triangle / في هذا المثلث

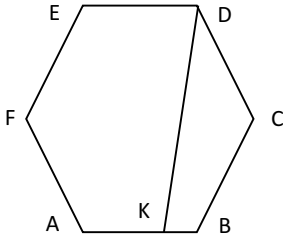
$$m(\widehat{ABC}) = 50^\circ$$

$$|AC| = |BC|$$

$$m(\widehat{C}) = ?$$

- A) 80° B) 90° C) 100° D) 110° E) 120°

79.



ABCDEF düzgün altıgen
hexagon with equal sides

في المسدس المستوي

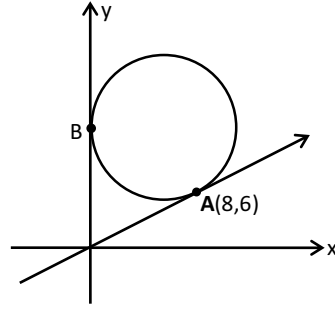
$$|AK| = 3\text{cm}, |KB| = 1\text{cm}$$

olduğuna göre; / so; / وفقا لهذا

$$|DK| = ?$$

- A) $4\sqrt{3}$ B) 7 C) $5\sqrt{2}$ D) $\sqrt{51}$ E) $2\sqrt{14}$

80.



Şekildeki çemberde A ve B teğetlerin değme noktalarıdır.

In the shape above, the circle is tangent to A and B points.

في الدائرة السابقة تقعان على المماس A-B

Çemberin denklemi nedir?

Which of the followings is the equation for the circle?

ما هي معادلة الدائرة

- A) $(x - 5)^2 + (y - 10)^2 = 25$
B) $(x - 10)^2 + (y - 5)^2 = 25$
C) $(x - 6)^2 + (y - 8)^2 = 36$
D) $(x - 4)^2 + (y - 10)^2 = 25$
E) $(x - 3)^2 + (y - 5)^2 = 4$

TEST BİTTİ. LÜTFEN CEVAPLARINIZI
KONTROL EDİNİZ.

TEST IS COMPLETED. PLEASE CHECK
YOUR ANSWERS.

انتهت أسئلة الاختبار

GENEL AÇIKLAMA / GENERAL INSTRUCTIONS / تعليمات عامة

- Bu sınavın değerlendirilmesi doğru cevap sayısı üzerinden yapılacak, yanlış cevaplar dikkate alınmayacaktır. Bu nedenle, her soruda size en doğru görünen cevabı işaretleyerek cevapsız soru bırakmamanız yararınıza olabilir.
- Bu testteki her sorunun tek bir doğru cevabı vardır. Bir soru için birden çok cevap yeri işaretlenmişse, o soru yanlış cevaplanmış sayılacaktır.
- Cevaplarınızı koyu siyah ve yumuşak bir kurşun kalemle işaretleyiniz. Tükenmez kalem veya dolma kalem kullanmayınız.
- Cevap kâğıdınızı buruşturmayınız, katlamayınız ve üzerine gereksiz hiçbir işaret koymayınız.
- Değiştirmek istediğiniz bir cevabı, yumuşak bir silgiyle, cevap kâğıdını örselemeden temizce siliniz ve yeni cevabınızı işaretlemeyi unutmayınız.

- The score of this examination will be calculated over correct answers, wrong answers will be ignored. Thus, it would be beneficial for you to mark all questions without leaving any unmarked question
- In these tests is only one correct answer for each questions. If more than one alternative is marked, that answer will automatically be considered wrong.
- You should use a soft, black pencil to mark the answer sheet. Completely fill in the circle for the answer you have chosen, but make sure your mark does not go beyond the borders of the circle. Do not use any kind of pen.
- Keep the answer sheet flat and do not fold it. Do not make any unnecessary marks on it.
- If you wish to change an answer, carefully erase it completely with a very soft eraser. Do not forget to mark your new answer.

- 1 سيم احتساب درجات هذا الامتحان وفقا للاختيارات الصحيحة وسيتم تجاهل الإجابات الخاطئة وعلى هذا يفضل عدم ترك أسئلة بلا جواب , فهذا سيصب في مصلحة الطالب .
- 2 يجب اختيار جواب واحد فقط , في حال اختيار أكثر من جواب ستعتبر الإجابة غير صحيحة .
- 3 يتم استخدام القلم الرصاص الأسود , ويتم تظيل الدائرة كاملة , ويمنع استخدام القلم الجاف أو الحبر
- 4 حافظ على ورقة الإجابة دون ثني ولا تضع أي إشارات فيها سوى الإشارات المطلوبة والضرورية
- 5 عند تغيير الإجابة استخدم برفق ممحاة لينة ثم تظيل الجواب الجديد

SINAVDA UYULACAK KURALLAR / EXAM RULES / قواعد امتحان

- Sınava girecek adayların kimlik kartları ve sınav giriş belgeleri kontrol edilecektir. Bu belgeleri olmayan adaylar sınava alınmayacaktır.
- Sınavın başlamasını izleyen ilk 45 dakika, sınavlarını tamamlasalar bile hiçbir adayın sınavdan çıkmasına izin verilmeyecektir. Sınav başladıktan 30 dakika sonra gelen adaylar sınava alınmayacaktır.
- Sınav salonundan ayrılan aday, her ne sebeple olursa olsun, tekrar sınava alınmayacaktır.
- Sınav salonunda oturma düzeninin sağlanmasında sınav görevlileri yetkilidir. Adaylar görevlilerin talimatlarını yerine getirmekle yükümlüdürler. Sınav görevlileri; sınav kurallarını, düzenini ve işleyişini bozan, kopya çeken, kopya çekme girişiminde bulunan ve kopya çekilmesine yardımcı olan adaylar hakkında tutanak tutacaklardır ve sınavları geçersiz sayılacaktır.
- Sınava kitap, defter, ders notu gibi materyallerle girmek yasaktır.
- Sınavda telsiz, cep telefonu, kamera, hesap makinesi gibi elektronik araçlar kullanılmamalıdır, kapatılmalıdır ve sıranın üstünde bulundurulmamalıdır.
- Sınav süresince görevlilerle konuşmak, görevlilere soru sormak yasaktır. Aynı şekilde görevlilerin de adaylarla yakından ve alçak sesle konuşmaları ayrıca adayların birbirinden kalem, silgi vb. şeyleri istemeleri kesinlikle yasaktır.
- Sınav süresi bittiğinde cevapların cevap kâğıdına işaretlenmiş olması gerekir. Soru kitapçığına işaretlenen cevaplar geçerli değildir.
- Cevap kâğıdına ve soru kitapçığına yazılması ve işaretlenmesi gereken bilgilerde bir eksiklik ve/veya yanlışlık olması hâlinde sınavınızın değerlendirilmesi mümkün değildir, bu husustaki özen yükümlülüğü ve sorumluluk size aittir.
- Soru kitapçığının sayfalarındaki boş yerleri müsvedde için kullanabilirsiniz.
- Soruları ve/veya bu sorulara verdiğiniz cevapları ayrı bir kâğıda yazıp bu kâğıdı dışarı çıkarmanız kesinlikle yasaktır.
- Sınav salonundan ayrılmadan önce, soru kitapçığınızı, cevap kâğıdınızı ve sınav giriş belgenizi salon görevlilerine eksiksiz olarak teslim etmeyi unutmayınız.

- ID cards and exam entrance documents of the candidates will be checked. The ones who don't have these documents with them will not be taken to the exam.
- The candidates will not be let out of the exam hall during the first 45 minutes even if they have completed their exam. The candidates who arrive 30 minutes after the exam starts will not be allowed inside the exam hall.
- The candidate who leaves the exam hall, for whatever reason, will not be allowed to come back in.
- The invigilators are in charge of the sitting order. The candidates are obliged to follow the instructions of the invigilators. The invigilators will prepare a report about the candidates who attempt to cheat, who don't follow the exam rules and don't behave accordingly. And the exam of those candidates will be considered invalid.
- It is forbidden to bring books, notebooks and similar course materials to the exam.
- Equipments or tools such as walkie-talkie, mobile phone, camera, calculator shouldn't be used or put on the table; they should all be switched off.
- It is forbidden to talk and ask questions to the invigilators. It is also forbidden for the invigilators to talk to the candidates in a close distance. The candidates are forbidden to ask for pencils, erasers, etc. from other candidates as well.
- When the time is over, the answers ought to have been marked on the answer sheet. The markings on the question book will be considered invalid.
- The candidates are responsible for any missing or wrong information on the question book and answer sheet and the exams of these candidates will be considered invalid.
- You can use the free areas on the question book.
- It is forbidden to write the questions and answers on a paper and try to take this paper out of the exam hall.
- Before leaving the exam hall, do not forget to give your question book, answer sheet, and exam entrance document to the invigilators

- 1 - سيتم التحقق من إثبات الشخصية للمتقدم للامتحان ولن يسمح لمن لم يقدم وثيقة إثبات الشخصية من الدخول لإجراء الامتحان .
- 2 - لن يسمح للمتقدم للامتحان بمغادرة قاعة الامتحان قبل مرور خمس وأربعين دقيقة- حتى الذين أنهوا الإجابة على جميع الأسئلة - كما لن يسمح للمتقدم بدخول الامتحان حال وصوله لقاعة الامتحان بعد مرور نصف ساعة من موعد بداية الامتحان .
- 3- من يغادر قاعة الامتحان لأي سبب كان فلن يسمح له بدخول قاعة الامتحان مرة أخرى .
- 4- النظام الخاص بأماكن جلوس المتقدمين للامتحان يتم تحديده من قبل الموظفين المعنيين بذلك وأي طالب يقوم بأي تصرف من شأنه الإخلال بنظام الامتحان أو يقوم بالمشاركة في عملية الغش فسوف يتم عمل محضر له وسيتم إلغاء الامتحان الخاص به .
- 5 لا يسمح بدخول الكتب أو المفاتيح أو أوراق إلى لجنة الامتحان .
- 6 - كل وسائل الاتصالات كالهواتف المحمولة وكذلك الكاميرا والحواسيب الإلكترونية أو الآلة الحاسبة أو ما شابه يجب إغلاقها وعدم استخدامها بأي صورة أثناء الامتحان .
- 7- يمنع منعاً باتاً التحدث مع الموظفين المعنيين بإجراء الامتحان من قبل الطلاب , كما يمنع على الموظفين التحدث إلى الطلاب أثناء الامتحان وكما يمنع التحدث بين الطلاب ولا يسمح للطلاب بطلب أدوات مثل الممحاة أو القلم أثناء سريان الامتحان .
- 8- مع انتهاء وقت الامتحان يجب أن تكون كافة الإجابات قد تم تظليلها في ورقة الإجابة ولا يعتد بالإجابات التي تمت الإشارة إليها في ورقة الأسئلة .
- 9- المتقدم للامتحان هو المسؤول عن أية بيانات ناقصة أو غير صحيحة في ورقتي الأسئلة والإجابة , ففي هذه الحالة سوف يتم إلغاء الامتحان لهذا الطالب .
- 10- يمكن للمتقدم للامتحان استخدام المساحات الخالية في أوراق الأسئلة كمسودات .
- 11- يمنع منعاً باتاً كتابة الأسئلة والأجوبة في ورقة خارجية والخروج من لجنة الامتحان بهذه الورقة .
- 12- يجب تسليم الأوراق الخاصة بالأسئلة والأجوبة والوثيقة الخاصة بدخول الامتحان للموظف .

Bu testlerin her hakkı saklıdır. Hangi amaçla olursa olsun, testlerin tamamının veya bir kısmının Merkezimizin yazılı izni olmadan kopya edilmesi, fotoğrafının çekilmesi, herhangi bir yolla çoğaltılması, yayımlanması ya da kullanılması yasaktır. Bu yasağa uymayanlar gerekli cezai sorumluluğu ve testlerin hazırlanmasındaki mali külfeti peşinen kabullenmiş sayılır.