



Kuwait University
Office of Assistant Vice President for Evaluation
and Measurement

Academic Aptitude Tests



Student Name

Version
A

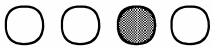
Civil ID No.

Instructions:

1. The aptitude tests consist of three tests.

<u>Test</u>	<u>Number of Questions</u>	<u>Time</u>
English	85	1 Hour
Mathematics	20 (No Calculator)	1 Hour
Chemistry	25	1 Hour

2. Mark all your answers on the **Answer Sheet** and in the proper section. On your answer sheet as shown below, using a pencil, darkenthe proper circle.



3. Verify all personal and test data on answer sheet and don't make any changes unless approved by the proctor.
4. Write down your name and Civil ID# on the test booklet.
5. Copy the test's version on your answer sheet.
6. Follow the proctor's instruction during the test.
7. During testing, be quite and avoid any cheating situation.
8. Observe the allocated and the announced time for each test.

1. Simplify: $\frac{(a^{-2}b)^{-4}(ab)^{-3}}{a^{-4}}$

(a) $\frac{a^5}{b^7}$

(c) $\frac{a^{-5}}{b^{-7}}$

(b) $\frac{a^9}{b^{-7}}$

(d) $\frac{a^9}{b^7}$

2. The solution set of $|2x + 1| = 1$ is:

(a) $\{0\}$
(b) $\{-1\}$

(c) $\{1, -1\}$
(d) None of the previous

3. Find the domain of $f(x) = \begin{cases} \sqrt{x-5} & \text{if } x > 3 \\ \frac{1}{x+5} & \text{if } x < 0 \end{cases}$

(a) $\mathbb{R} \setminus \{-5\}$

(c) $(-\infty, 0) \cup (3, \infty)$

(b) $(-\infty, -5) \cup (-5, 0) \cup [5, \infty)$

(d) $[5, \infty)$

4. $\left(\frac{9}{4}\right)^{\frac{-5}{2}} \left(\frac{2}{3}\right)^{-3} =$

(a) $\left(\frac{2}{3}\right)^2$

(c) $\left(\frac{3}{4}\right)^2$

(b) $\frac{9}{4}$

(d) $\frac{3}{2}$

5. If $x^3 < 0$, then $\sqrt{25x^2} + 5x =$

(a) $5x^{\sqrt{2}} + 5x$

(c) 0

(b) $10x$

(d) None of the previous

6. If $f(x) = \frac{x^2}{2x^2 + 5x + 3}$, then $f(x + 1) =$

(a) $\frac{x^2 + 2x + 1}{2x^2 + 9x + 10}$

(c) $\frac{x^2 + 1}{2x^2 + 9x + 5}$

(b) $\frac{x^2 + 1}{2x^2 + 5x + 4}$

(d) $\frac{x^2 + 2x + 1}{2x^2 + 6x + 10}$

7. The solution set of $|5 - 3x| < 7$ is:

- (a) $\left(-\infty, \frac{-2}{3}\right) \cup (4, \infty)$ (c) $(-1, 4)$
(b) $\left(-\infty, \frac{-2}{3}\right)$ (d) $\left(\frac{-2}{3}, 4\right)$

8. If $y = \frac{x}{x+1}$ then

- (a) $x = \frac{y}{1-y}$ (c) $x = \frac{y+1}{y}$
(b) $x = \frac{y}{y-1}$ (d) $x = \frac{1-y}{y}$

9. $\frac{2}{x-1} - \frac{1}{x+2} =$

- (a) $\frac{x-5}{x^2+x-2}$ (c) $\frac{x+5}{x^2+x-2}$
(b) $\frac{x+1}{x^2+x-2}$ (d) $\frac{x-1}{x^2+x-2}$

10. $(a+2b)^2 - 3(a+2b) - 10 =$

- (a) $(a+2b-2)(a+2b+5)$ (c) $(a+2b+2)(a+2b-5)$
(b) $(a+2b+2)(a+2b+5)$ (d) None of the previous

11. $x^2 - z^2 - 6xy + 9y^2 =$

- (a) $(x-3y+z)(x-3y-z)$ (c) $(x+3y-z)(x-3y-z)$
(b) $(x+3y+z)(x-3y-z)$ (d) None of the previous

12. 25 rabbits in a farm consume 90 kg of food every two days. How many kg of food would 10 rabbits consume in a week?

- (a) 119 kg (c) 140 kg
(b) 112 kg (d) 126 kg

13. The solution set of $x^3 + 10x = 7x^2$ is:

- (a) $\{2, 5\}$ (c) $\{2, 5, 3\}$
(b) $\{0, 2, 3\}$ (d) None of the previous

14. Prices in a sale were reduced by 35%. What was the price of a washing machine before the sale if its sale price is 92.950 KD?
- (a) 135 KD (c) 145 KD
(b) 153 KD (d) 143 KD
15. When water freezes into ice, its volume is increased by 6%. What is the volume of water obtained when 768.5 cc of ice melts?
- (a) 725 cc (c) 745 cc
(b) 735 cc (d) 722.39 cc
16. The side of a cube A is 2cm longer than the side of a cube B. If the surface area of A is 54 cm^2 , find the volume of B.
- (a) 1 cm^3 (c) 125 cm^3
(b) 8 cm^3 (d) None of the previous
17. The water in a hotel tank can last for 8 days if the hotel is full with guests. How long does the water last if only 40% of the hotel is occupied?
- (a) 5 days (c) 20 days
(b) 25 days (d) 40 days
18. Let $f(x) = 1 - \frac{1}{x+1}$ and $g(x) = \frac{1}{f(x)}$. Find the composite function $f \circ g(x)$.
- (a) $\frac{x+1}{2x+1}$ (c) 1
(b) $\frac{2x+1}{x+1}$ (d) x
19. A shopkeeper bought 50 kg of apples for 250 fils per kilo. He then discovered that 10 kg of them are damaged and cannot be sold. What is the selling price of the rest of the apples if the shopkeeper wants a total profit of 2.5 KD?
- (a) 340 fils/kg (c) 375 fils/kg
(b) 395 fils/kg (d) 350 fils/kg
20. x workers can finish a job in y days. How many workers are needed to finish the job in $3y$ days?
- (a) $3x$ (c) $\frac{x}{3}$
(b) $3y$ (d) $\frac{y}{3}$

اختبارات القدرات الأكاديمية
ورقة الإجابة

113 مسلسل القاعة

قاعة الاختبار

قاعة رقم 20 مبنى 11 خ - كلية العلوم

اسم الطالب

أسم الطالب

281000100001 الرقم المدني

206115000 الرقم الجامعي

3-Exam مواد الاختبار
الانجليزي ورياضيات وكيمياء

تاريخ الاختبار السبت الموافق 3 - يوليو - 2010

إصدار الامتحان
Exam's Version

- Ⓐ نموذج A
Ⓑ نموذج B
Ⓒ نموذج C
Ⓓ نموذج D

الحضور
Attendance

- Present حاضر
 Absent غائب

التشعب
Track

- Science علمي
 Art ادبي

صف الطالب
Student Grade

- Grade 11 الصف 11
 Grade 12 الصف 12

Required exams

الاختبارات المطلوبة

① English+Math.+Chem	انجليزي + رياضيات + كيمياء
② English+Mathematics	انجليزي + رياضيات
③ English+Chemistry	انجليزي + كيمياء
④ Mathematics+Chemistry	رياضيات + كيمياء
⑤ English only	انجليزي فقط
⑥ Mathematics only	رياضيات فقط
⑦ Chemistry only	كيمياء فقط

إرشادات مهمة

USE A No. 2 PENCIL

- 1- استخدم القلم الرصاص فقط في تعبئة ورقة الاختبار ولا تترك فراغات.
- 2- قلب الورقة العكسية كلما نمتا هو ممتد في المساق.
- 3- لا تكتب بعدا من الورقة لتقول او تترك عند المسح.
- 4- عند تعبئة الورقة برصاص عدم الخروج عن حدود الورقة.



تضليل صحيح ●

تضليل خطأ ⊗ ⊕ ⊖ ⊙

Answers - English Exam		إجابات اختبار اللغة الانجليزية							
Q's#	Answers	Q's#	Answers	Q's#	Answers	Q's#	Answers	Q's#	Answers
1 -	A B C D E	19 -	A B C D E	37 -	A B C D E	55 -	A B C D E	73 -	A B C D E
2 -	A B C D E	20 -	A B C D E	38 -	A B C D E	56 -	A B C D E	74 -	A B C D E
3 -	A B C D E	21 -	A B C D E	39 -	A B C D E	57 -	A B C D E	75 -	A B C D E
4 -	A B C D E	22 -	A B C D E	40 -	A B C D E	58 -	A B C D E	76 -	A B C D E
5 -	A B C D E	23 -	A B C D E	41 -	A B C D E	59 -	A B C D E	77 -	A B C D E
6 -	A B C D E	24 -	A B C D E	42 -	A B C D E	60 -	A B C D E	78 -	A B C D E
7 -	A B C D E	25 -	A B C D E	43 -	A B C D E	61 -	A B C D E	79 -	A B C D E
8 -	A B C D E	26 -	A B C D E	44 -	A B C D E	62 -	A B C D E	80 -	A B C D E
9 -	A B C D E	27 -	A B C D E	45 -	A B C D E	63 -	A B C D E	81 -	A B C D E
10 -	A B C D E	28 -	A B C D E	46 -	A B C D E	64 -	A B C D E	82 -	A B C D E
11 -	A B C D E	29 -	A B C D E	47 -	A B C D E	65 -	A B C D E	83 -	A B C D E
12 -	A B C D E	30 -	A B C D E	48 -	A B C D E	66 -	A B C D E	84 -	A B C D E
13 -	A B C D E	31 -	A B C D E	49 -	A B C D E	67 -	A B C D E	85 -	A B C D E
14 -	A B C D E	32 -	A B C D E	50 -	A B C D E	68 -	A B C D E		
15 -	A B C D E	33 -	A B C D E	51 -	A B C D E	69 -	A B C D E		
16 -	A B C D E	34 -	A B C D E	52 -	A B C D E	70 -	A B C D E		
17 -	A B C D E	35 -	A B C D E	53 -	A B C D E	71 -	A B C D E		
18 -	A B C D E	36 -	A B C D E	54 -	A B C D E	72 -	A B C D E		

Answers - Mathematics Exam		إجابات اختبار الرياضيات							
Q's#	Answers	Q's#	Answers	Q's#	Answers	Q's#	Answers	Q's#	Answers
1 -	A B C ● D E	6 -	● B C D E	11 -	● B C D E	16 -	● B C D E		
2 -	A B C ● D E	7 -	A B C ● D E	12 -	A B C ● D E	17 -	A B ● C D E		
3 -	A ● B C D E	8 -	● B C D E	13 -	A B C ● D E	18 -	● B C D E		
4 -	● B C D E	9 -	A B ● C D E	14 -	A B C ● D E	19 -	A B ● C D E		
5 -	A B ● C D E	10 -	A B ● C D E	15 -	● B C D E	20 -	A B ● C D E		

Answers - Chemistry Exam		إجابات اختبار الكيمياء							
Q's#	Answers	Q's#	Answers	Q's#	Answers	Q's#	Answers	Q's#	Answers
1 -	A B C D E	6 -	A B C D E	11 -	A B C D E	16 -	A B C D E	21 -	A B C D E
2 -	A B C D E	7 -	A B C D E	12 -	A B C D E	17 -	A B C D E	22 -	A B C D E
3 -	A B C D E	8 -	A B C D E	13 -	A B C D E	18 -	A B C D E	23 -	A B C D E
4 -	A B C D E	9 -	A B C D E	14 -	A B C D E	19 -	A B C D E	24 -	A B C D E
5 -	A B C D E	10 -	A B C D E	15 -	A B C D E	20 -	A B C D E	25 -	A B C D E