



## Academic Aptitude Tests

<b>Student Name</b>
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<b>Version</b> <b>A</b>
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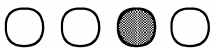
<b>Civil ID No.</b>
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### Instructions:

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. The solution set of  $6x^2 - 11x - 10 = 0$  is:

(a)  $\left\{\frac{-5}{3}, 1\right\}$

(c)  $\left\{\frac{-5}{2}, \frac{2}{3}\right\}$

(b)  $\left\{\frac{5}{3}, -1\right\}$

(d)  $\left\{\frac{5}{2}, \frac{-2}{3}\right\}$

2. The solution set of  $x^2 - 2 = |x|$  is:

(a)  $\{2\}$

(c)  $\{-2, 1\}$

(b)  $\{2, -1\}$

(d) None of the previous

3. The solution set of the inequality  $|7 - x| > 5$  is:

(a)  $(-12, -2) \cup (0, \infty)$

(c)  $(-\infty, -12) \cup (-2, \infty)$

(b)  $(-\infty, 0) \cup (12, \infty)$

(d)  $(-\infty, 2) \cup (12, \infty)$

4. The solution set of the inequality  $\frac{(x+5)(x-2)}{x+3} > 0$  is:

(a)  $(-\infty, -3) \cup (2, \infty)$

(c)  $(-\infty, -5) \cup (-3, 2)$

(b)  $(-\infty, -5) \cup (-3, \infty)$

(d)  $(-5, -3) \cup (2, \infty)$

5. If  $z = 2xw + 2yw + 2yx$ , then  $y =$

(a)  $\frac{z - 2xw}{2w + 2x}$

(c)  $\frac{z - 2xw}{2w - 2x}$

(b)  $\frac{z - xw}{2xw}$

(d)  $\frac{z - xw}{w - x}$

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

(a)  $\frac{3x-4}{(x-1)(x-2)}$

(c)  $\frac{x}{(x-1)(x-2)}$

(b)  $\frac{x-4}{(x-1)(x-2)}$

(d) None of the previous

7.  $2x^3 - 5x^2 - 28x + 15 =$
- (a)  $(2x-1)(x-3)(x-5)$  (c)  $(2x-1)(x-5)(x+3)$   
 (b)  $(2x^2-3)(x-5)$  (d)  $x(2x-1)(x-5)(x+3)$
8.  $\frac{5^{2x+1}}{5^{1-2x}} =$
- (a) 1 (c)  $5^{4x-2}$   
 (b)  $5^{4x}$  (d) 25
9. The solution set of  $7^{x^2+20} = 7^{9x}$  is:
- (a)  $\{4, 5\}$  (c)  $\{0, 20\}$   
 (b)  $\{-4, -5\}$  (d) None of the previous
10.  $\frac{2}{3} - \left(\frac{3}{4} - \frac{1}{2}\right) =$
- (a)  $\frac{5}{24}$  (c)  $\frac{5}{12}$   
 (b)  $\frac{-7}{12}$  (d) None of the previous
11. The domain of  $f(x) = \frac{1}{\sqrt{x-1}}$  is:
- (a)  $(-\infty, 1)$  (c)  $[1, \infty)$   
 (b)  $\mathbb{R} \setminus \{1\}$  (d) None of the previous
12. If  $f(x) = x^2 - 1$ , then  $f(x-1) =$
- (a)  $x^2 + 2x - 1$  (c)  $x^2 - 2x - 1$   
 (b)  $x^2 - 2x$  (d)  $x^2 - 2$
13. Prices in a sale were reduced by 20%. If the price of a washing machine was 120 KD before the sale, then its sale price is:
- (a) 94 KD (c) 96 KD  
 (b) 144 KD (d) 100 KD

14. During an operation, the heart beat of a patient has increased by 25%. He was given a medication that decreased the heart beat by 20% to reach 60 b/Min. The heart beat before the operation was:
- (a) 58 b/Min. (c) 64 b/Min.  
 (b) 72 b/Min. (d) None of the previous
15. If 5 rabbits consume 70 Kg of food per week, then how much food is consumed by 8 rabbits in 3 days?
- (a) 72 Kg (c) 24 Kg  
 (b) 48 Kg (d) None of the previous
16. If 6 workers can finish a job in 8 days, then how many workers are needed to finish the same job in 4 days?
- (a) 12 (c) 3  
 (b) 9 (d) None of the previous
17. Ahmad can finish a job in 3 hours, while Mansour needs 9 hours to finish the same job. How long it takes to finish this job, if Ahmad and Mansour work together on it?
- (a) 2 hours (c) 6 hours  
 (b) 12 hours (d) None of the previous
18. A hotel charges  $x$  KD per night plus 8% tax applied to the room rate. The hotel also charges an untaxed 5 KD per stay in the hotel. How much would a guest pay if he stays for  $m$  nights?
- (a)  $1.08(mx + 5)$  (c)  $1.08(mx) + 5$   
 (b)  $(x + 0.08m) + 5$  (d) None of the previous
19. A farm had 50 cows at the beginning of 2018. If it is estimated that the number of cows will double every 6 years, then which of the following will give the estimated number  $C$  of cows  $m$  years after 2018.
- (a)  $C = 50(2)^{6m}$  (c)  $C = 50 + 6m$   
 (b)  $C = 50(2)^{\frac{m}{6}}$  (d)  $C = 6 + 50m$
20. The cost (in KD) of producing  $m$  items in a factory is  $C = 7m + 350$ . The factory sells each item for 12 KD. What is the minimum number of items that must be sold for the factory to make profit?
- (a) 84 (c) 71  
 (b) 70 (d) None of the previous

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

Answers - Mathematics Exam		إجابات اختبار الرياضيات		Answers		إجابات اختبار الرياضيات	
Q's#	Answers	Q's#	Answers	Q's#	Answers	Q's#	Answers
1 -	A B C <input checked="" type="radio"/> D	6 -	A B <input checked="" type="radio"/> C D	11 -	A B C <input checked="" type="radio"/> D	16 -	<input checked="" type="radio"/> B C D
2 -	A B C <input checked="" type="radio"/> D	7 -	A B <input checked="" type="radio"/> C D	12 -	A <input checked="" type="radio"/> B C D	17 -	A B C <input checked="" type="radio"/> D
3 -	A B C <input checked="" type="radio"/> D	8 -	A B <input checked="" type="radio"/> C D	13 -	A B <input checked="" type="radio"/> C D	18 -	A B <input checked="" type="radio"/> C D
4 -	A B C <input checked="" type="radio"/> D	9 -	<input checked="" type="radio"/> A B C D	14 -	A B C <input checked="" type="radio"/> D	19 -	A <input checked="" type="radio"/> B C D
5 -	<input checked="" type="radio"/> A B C D	10 -	A B <input checked="" type="radio"/> C D	15 -	A <input checked="" type="radio"/> B C D	20 -	A B <input checked="" type="radio"/> C D

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

Answers - Arabic Exam		إجابات اختبار اللغة العربية		Answers		إجابات اختبار اللغة العربية		Answers		إجابات اختبار اللغة العربية	
Q's#	Answers	Q's#	Answers	Q's#	Answers	Q's#	Answers	Q's#	Answers	Q's#	Answers
1 -	A B C D	11 -	A B C D	21 -	A B C D	31 -	A B C D	41 -	A B C D	51 -	A B C D
2 -	A B C D	12 -	A B C D	22 -	A B C D	32 -	A B C D	42 -	A B C D	52 -	A B C D
3 -	A B C D	13 -	A B C D	23 -	A B C D	33 -	A B C D	43 -	A B C D	53 -	A B C D
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10 -	A B C D	20 -	A B C D	30 -	A B C D	40 -	A B C D	50 -	A B C D	60 -	A B C D