# Kuwait University

**Office of Assistant Vice President for Evaluation and Measurement**

## Academic Aptitude Tests

| Student Name | Version A |
|---|---|
| | |

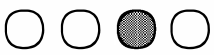
| Civil ID No. |
|---|
| |

## Instructions:

1. The aptitude tests consist of three tests.

| Test | Number of Questions | Time |
|---|---|---|
| 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 $-2x^2 - 3x + 5 = 0$ contains:

(A) Only 3 elements
(B) Only 2 elements
(C) Only 1 element
(D) No elements

2. $\frac{5}{3} - \left(\frac{7}{2} - \frac{7}{5}\right) =$

(A) $-\frac{2}{3}$
(B) $-\frac{1}{30}$
(C) $-\frac{13}{30}$
(D) $-\frac{97}{30}$

3. $\frac{t}{t+s} =$

(A) $\frac{1}{1+s}$
(B) $\frac{1}{s}$
(C) zero
(D) None of the previous

4. $\sqrt{x^2 + y^2} =$

(A) $x + y$
(B) $|x + y|$
(C) $|x| + |y|$
(D) None of the previous

5. The solution set of the inequality $|x| \geq x$ is:

(A) $\Re$
(B) $[0, \infty)$
(C) $[-1,1]$
(D) None of the previous

6. $\dfrac{\left(x^{-1}y^{2}z^{-3}\right)^{4}}{\left(x^{4}y^{-5}z^{6}\right)^{3}}$ =

(A) $\dfrac{y^{23}}{x^{16}z^{30}}$

(B) $\dfrac{x^{8}y^{23}}{z^{30}}$

(C) $\dfrac{1}{x^{16}y^{7}z^{30}}$

(D) $\dfrac{1}{x^{16}y^{-23}z^{9}}$

7. If $s = \dfrac{5t-4}{2t+9}$ , then $t$ =

(A) $\dfrac{-(9s+4)}{2s-5}$

(B) $\dfrac{9s+4}{2s-5}$

(C) $\dfrac{2}{5}s-\dfrac{9}{4}$

(D) $\dfrac{2}{5}s+\dfrac{9}{4}$

8. If $x<0$ , then $\sqrt[3]{27x^{3}}+\sqrt{9x^{2}}$ =

(A) $6x$

(B) zero

(C) $-6x$

(D) None of the previous

9. $6x^{2}-x-12$ =

(A) $(x-2)(6x+6)$

(B) $(3x-4)(2x+3)$

(C) $(2x-3)(3x+4)$

(D) None of the previous

10. The solution set of $\dfrac{(x-1)(x-2)}{x}>0$ is :

(A) $\Re\setminus\{0\}$

(B) $(-\infty,1)\cup(2,\infty)\setminus\{0\}$

(C) $(-\infty,0)\cup(1,2)$

(D) $(0,1)\cup(2,\infty)$

11. The domain of the function $f(x)=\dfrac{x^{\frac{3}{2}}-1}{x}$ is:

(A) $\Re\setminus\{0\}$
(B) $[1,\infty)$
(C) $(0,\infty)$
(D) None of the previous

12. If $f(x)=3x^2-8$, then $f(2x-1)=$

(A) $12x^2-12x-5$
(B) $12x^2+12x-9$
(C) $6x^2+2x-9$
(D) $6x^2-2x-5$

13. The side of square A is 4cm more than the side of square B. Then the area of A increases the area of B by :

(A) 4 $cm^2$
(B) 8 $cm^2$
(C) 16 $cm^2$
(D) None of the previous

14. Right–angled triangle A has base *b*, height *h* and area *x*. Rectangle B with length *2b* and width *2h* has an area equal to:

(A) 4 *x*
(B) 8 *x*
(C) 16 *x*
(D) None of the previous

15. Ahmad and Ali took a road trip and shared the driving. Ahmad drove four times as many kilometers as Ali drove. What percentage of the total kilometers of the trip did Ali drive?

(A) 25 %
(B) 80 %
(C) 20 %
(D) 5 %

16. If 3kg of rose petals are needed to produce 5g of perfume, then how much rose petals are needed to produce 870g of perfume?

(A) 1450 kg
(B) 2610 kg
(C) 522 kg
(D) None of the previous.

17. A company was able to sell one third of the washing machines they had imported. After selling 10 additional washing machines, they were left with half of the imported machines. How many washing machines did the company import?

(A) 42
(B) 60
(C) 50
(D) None of the previous.

18. If 200% of 40% of $x$ is equal to 40% of $y$, then $x$ is what percent of $y$?

(A) 20 %
(B) 40 %
(C) 50 %
(D) None of the previous.

19. The average of 8, 13, $x$ and $y$ is 6. The average of 15, 9, $x$ and $x$ is 8. What is the value of $y$?

(A) -1
(B) 4
(C) 6
(D) None of the previous.

20. If $\frac{a}{b} + a = 6$, then $\sqrt{\frac{a + ab - 2b}{b}} =$

(A) $\sqrt{6}$
(B) 2
(C) 4
(D) None of the previous.

## 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 | 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

| Q's# | Answers | Q's# | Answers | Q's# | Answers | Q's# | Answers |
|---|---|---|---|---|---|---|---|
| 1 - | A **B** C D | 6 - | **A** B C D | 11 - | A B **C** D | 16 - | A B **C** D |
| 2 - | A B **C** D | 7 - | **A** B C D | 12 - | **A** B C D | 17 - | A **B** C D |
| 3 - | A B C **D** | 8 - | A **B** C D | 13 - | A B C **D** | 18 - | A B **C** D |
| 4 - | A B C **D** | 9 - | A B **C** D | 14 - | A **B** C D | 19 - | **A** B C D |
| 5 - | **A** B C D | 10 - | A B C **D** | 15 - | A B **C** D | 20 - | A **B** C D |

## 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 | 6 - | A B 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 C D | 12 - | A B C D | 17 - | A B C D | 22 - | A B C D |
| 3 - | A B C D | 8 - | A 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 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 B C D | 15 - | A B C D | 20 - | A B C D | 25 - | A B C D |

## Answers - Arabic Exam — 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 |
| 4 - | A B C D | 14 - | A B C D | 24 - | A B C D | 34 - | A B C D | 44 - | A B C D | 54 - | A B C D |
| 5 - | A B C D | 15 - | A B C D | 25 - | A B C D | 35 - | A B C D | 45 - | A B C D | 55 - | A B C D |
| 6 - | A B C D | 16 - | A B C D | 26 - | A B C D | 36 - | A B C D | 46 - | A B C D | 56 - | A B C D |
| 7 - | A B C D | 17 - | A B C D | 27 - | A B C D | 37 - | A B C D | 47 - | A B C D | 57 - | A B C D |
| 8 - | A B C D | 18 - | A B C D | 28 - | A B C D | 38 - | A B C D | 48 - | A B C D | 58 - | A B C D |
| 9 - | A B C D | 19 - | A B C D | 29 - | A B C D | 39 - | A B C D | 49 - | A B C D | 59 - | A B C D |
| 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 |