Kuwait University

Office of the Vice President for Academic Affairs
Measurement and Teaching Development Center

Academic Aptitude Tests

Student Name	Version
	A

Civil ID No.

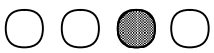
SAMPLE

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, darken the 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. $\dfrac{80-6\left(\dfrac{36}{9}\right)}{0.25} =$

(b) 224 (d) 188
104

2. If $27^m \times 3^2 = 3^4 \times 9^8$, then $m =$

(a) 3 (c) 8
(b) 6 (d) 15

3. If the product of two numbers is 5 and one of the numbers is $\frac{3}{2}$, then the sum of the numbers is:

(a) $4\frac{1}{3}$ (c) $4\frac{5}{6}$
(b) $4\frac{2}{3}$ (d) $5\frac{1}{6}$

4. $\dfrac{x^2}{\sqrt{1}\ x}$ $\sqrt{1-x^2} =$

(a) $\dfrac{-1}{\sqrt{1-x^2}}$ (c) $\dfrac{1-2x^2}{\sqrt{1-x^2}}$
(b) $\dfrac{1}{\sqrt{1-x^2}}$ (d) $\dfrac{2x^2-1}{\sqrt{1-x^2}}$

5. Consider the equation $x^2 + 2x + k = 5$, where k is a constant. If 3 is a solution of the equation, then the second solution is:

(a) –5 (c) –1
(b) –2 (d) –3

6. The length of the diagonal of a square is $\sqrt{10}$. Find the area of the square.

10
(b) 20 (d) 5

7. Cube A has surface area 1350 cm^2, and cube B has surface area 600 cm^2. Then the edge of A exceeds the edge of B by:

(a) 25 (c) 5
(b) 15 (d) None of the previous

8. $\dfrac{4x^3-2x}{2x+1} =$

(a) $2x^2+x+\dfrac{\frac{1}{2}}{2x+1}$ (c) $2x^2+x-\dfrac{\frac{1}{2}}{2x+1}$

(b) $2x^2-x-\dfrac{\frac{1}{2}}{2x+1}$ (d) $2x^2-x+\dfrac{\frac{1}{2}}{2x+1}$

9. Which of the following inequalities is equivalent to $-4<x<8$:

(a) $|x-1|<7$ (c) $|x+3|<5$

(b) $|x+2|<6$ (d) $|x-2|<6$

10. The solution set of $\left(\dfrac{1}{x^2}\right)+\dfrac{1}{x}-12=0$ is:

(a) $\{2\sqrt{2},\sqrt{3}\}$ (c) $\left\{-\dfrac{1}{4},\dfrac{1}{3}\right\}$

(b) $\{2\sqrt{2}\}$ (d) None of the previous

11. If $y=\dfrac{x}{1-xz}$, then $z=$

(a) $\dfrac{1}{x}$ (c) $\dfrac{1}{xy}$

(b) $\dfrac{x}{1-xy}$ (d) $\dfrac{y-x}{xy}$

12. The solution set of $\left|\dfrac{x}{3}\right|>\dfrac{1}{2}$ is:

(a) $(-\infty,-6)\cup(6,\infty)$ (c) $\left(\dfrac{3}{2},\infty\right)$

(b) $(-6, 6)$ (d) None of the previous

13. If $f(x)=\begin{cases} x-1 & \text{if } x\geq 3 \\ 5-x^2 & \text{if } x<3 \end{cases}$, then find $f(8)+f(-1)$.

(a) 9 (c) 5

(b) 11 (d) –5

14. If $f(x) = \begin{cases} \frac{1}{x} & x < -1 \\ \sqrt{1} & x \\ \frac{}{x} & x > 1 \end{cases}$, then find the domain of f.

(a) $\Re \setminus \{0,3\}$
(b) ϕ
(c) $(-\infty,-1) \cup (1,\infty)$
(d) None of the previous

15. The price of copper increased by 25% and then fell by 20%. The price after these changes becomes.

(a) 5% less than the original price.
(b) 5% more than the original price.
(c) Same as original price
(d) None of the previous

16. If 6 percent of x is 7.5, then 36 percent of x equals:

45
(b) 42
(d) 48

17. The weight of Sami was 100 kg. He started a diet that guarantees a 10% weight loss per month. What was Sami's weight after following this diet for two months?

(a) 80 kg
(b) 79 kg
(c) 81 kg
(d) None of the previous

18. In an Arabic school, English and French are offered as foreign languages, and each student must study at least one foreign language. If 41 students study both English and French, 681 students study English and 357 students study French, find the number of students in the school.

(a) 1079
(b) 1038
(c) 997
(d) 993

19. A water tank is half full of water. When 10 gallons are added, the tank is $\frac{7}{8}$ full. What is the capacity of the tank in gallons?

(a) $26\frac{2}{3}$
(b) $24\frac{3}{8}$
(c) $28\frac{1}{8}$
(d) $24\frac{2}{3}$

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

(a) $\{0\}$
(b) $\{1\}$
(c) $\Re$
(d) $[-1,\infty)$