

## Quantitative Test for HEC HAT 1 Engineering & IT

Sr	Questions	Answers Choice
1	If it takes 10 minutes to walk $\frac{3}{4}$ mile, how many minutes will it take to walk the rest of the mile?	A. 2 $\frac{1}{3}$ B. 13 $\frac{1}{3}$ C. 4 $\frac{2}{7}$ D. 30
2	A candy recipe calls for 5 parts milk, 4 parts cocoa, 4 parts syrup, 2 parts sugar, and 1 part butter. If you use 8 ounces of milk, how many ounces of candy mixture can you make?	A. 25 $\frac{3}{5}$ B. 5 $\frac{3}{5}$ C. 20 D. 128
3	A car that gets 15 miles per gallon of gasoline can travel 250 miles on a full tank. If the same car got 20 miles per gallon, how many miles could it travel on a full tank?	A. 300 B. 750 C. 250 $\frac{3}{5}$ D. 333 $\frac{1}{3}$
4	If 10 tractors are needed to plow a field in 4 hours, how many tractors are needed to plow the field in 5 hours?	A. 32 B. 4 C. 16 D. 8
5	If apples cost 3 for 37 cents, find the cost of 1 $\frac{3}{4}$ dozen apples.	A. 111 cents B. 159 cents C. 259 cents D. 211 cents
6	How many cents will r books cost if t books cost m dollars?	A. $\frac{100mr}{t}$ B. $\frac{mr}{100}$ C. $\frac{100t}{mr}$ D. $\frac{m}{100t}$
7	How many miles are there between two cities if the distance is represented by a 2.4 inch line on a map having a scale of 1 inch to 8 miles?	A. 19.0 B. 12.8 C. 8.5 D. 38
8	Find the value of x if $3:b=x:c$ .	A. $\frac{3b}{c}$ B. $\frac{c}{3b}$ C. $\frac{2c}{3b}$ D. $\frac{3c}{b}$
9	If a train travels $\frac{5}{6}$ miles in 1 $\frac{1}{4}$ minutes, how many miles will it travel in 1 hour?	A. 20 miles B. 50 miles C. 40 miles D. 30 miles
10	Find the ratio of 18 inches to 2 yards.	A. $\frac{3}{4}$ B. $\frac{1}{4}$ C. $\frac{1}{5}$ D. $\frac{2}{5}$
11	If 'x' and 'y' are positive and $\frac{1}{x} = 3 + \frac{1}{y}$ is 'x' greater than 'y'?	A. Yes B. No C. It cannot be determined D. They are equal
12	If $4x - y = 13$ and $3x - 2y = 7$ then what is the average of 'x' and 'y'?	A. 4 B. 3 C. 2 D. 6
13	If $x = 7y + 3$ and $z = 49y^2$ then what is 'z' in terms of x?	A. $x^2$ B. $x^{\sup>2\</sup>-3}$ C. $(x-3)^{\sup>2\</sup>7}$ D. None
14	$Ay - b = c$ , dy what is 'y' in terms of 'a', 'b' and 'c'?	A. $\frac{(c+b)}{(a+d)}$ B. $\frac{(c-b)}{(a+d)}$ C. $\frac{(c-b)}{(a+d)}$ D. $\frac{(c+b)}{(a-d)}$
15	$Ay - b = c$ -dy what is 'y' in terms of 'a', 'b' and 'c'?	A. 30 B. $\frac{38}{2}$ C. $\frac{38}{3}$ D. $\frac{38}{5}$

16	If $3x+5y=10$ and $3y+5x=30$ then average of 'x' and 'y' is?	A. $\frac{3}{2}$ B. 4 C. $\frac{5}{2}$ D. $\frac{7}{2}$
17	$\frac{1}{x}=\frac{1}{y}+\frac{1}{z}$ then 'x' in terms of 'y' and 'z' is given by?	A. $\frac{(y+z)}{(y-z)}$ B. $\frac{yz}{(y+z)}$ C. $\frac{(y+z)}{yz}$ D. $\frac{1}{z}-\frac{1}{y}$
18	The value of $(x+y)^2 - (x-y)^2$ is?	A. 4 B. $x^2+y^2$ C. $4xy$ D. $-4xy$
19	The value of $(x+y)^2 + (x-y)^2$ is?	A. 4 B. $2(x^2+y^2)$ C. $4xy$ D. $-4xy$
20	When $3x^2+5x+7$ is subtracted from $x^2+8x+3$ the result is?	A. $5x^2-3x+4$ B. $3x-2x^2-4$ C. $x^2+8x+10$ D. $11x^2+3x+10$
21	$(x+y)^2=25$ and $x^2+y^2=13$ then $xy$ is equal to?	A. 16 B. 20 C. 18 D. 6
22	If $(x+\frac{1}{x})^2=96$ what is the value of $x^2 + \frac{1}{x^2}$ ?	A. 94 B. 98 C. 100 D. 90
23	If $a^2 - b^2 = 36$ and $a-b = 12$ then average of 'a' and 'b' is?	A. 3 B. 12 C. 6 D. $\frac{3}{2}$
24	The value of $\{0.5^4 - 0.4^4\} / \{0.5^2 + 0.4^2\}$ is?	A. 0.9 B. 0.09 C. 0.19 D. 0.31
25	$2x^2y$ when multiplied with $x^2 + y^2$ gives ?	A. $2x^2y^3 + 2xy^3$ B. $2x^4y + 2x^2y^3$ C. $2xy^2 + 2x^2y$ D. $2xy^3 + 2x^3y$
26	If $2x + y + 11$ and $3x + 2y = 17$ then y is?	A. 1 B. 5 C. 6 D. 4
27	The value of $x^2 + 5x + 6$ at $x=2$ is:	A. 10 B. 14 C. 18 D. 20
28	If $x + 3y = 7$ and $2x + y = 5$ then value $x/y$ is?	A. $\frac{1}{2}$ B. $\frac{1}{3}$ C. $\frac{2}{5}$ D. $\frac{8}{9}$
29	If $x + 2y = 11$ and $x + y = 10$ the value of y is:	A. 1 B. 2 C. 3 D. 4
30	$x + y = 17$ and $x=2$ , then value of y?	A. 13 B. 15 C. 19 D. 10
31	$1.02 - 0.02 + ? = 1.842$	A. 0.222 B. 0.842 C. 2 D. None
32	$0.007 \div \sqrt{0.000049}$	A. 1 B. 0.0049 C. 2 D. 7

33	$1\frac{3}{4} - 1\frac{3}{5} = ?$	A. 0.16 B. 0.2 C. 0.15 D. 13/20
34	$72 + 679 + 1439 + 537 + ? = 4036$	A. 1309 B. 1208 C. 2308 D. 2423
35	$(242 - 17)^2 - (7 - 5)^2 = ?$	A. 49000 B. 49200 C. 94200 D. 49400
36	If x% of 60 = 48, then x = ?	A. 80 B. 60 C. 90 D. 40
37	25% of 4 + 4% of 25 = ?	A. 1 B. 3 C. 0 D. 6
38	$0.027\sqrt{90} = ?$	A. 0.0003 B. 0.03 C. 3 D. 0.00003
39	$(60)^2 = ? \times 72$	A. 36 B. 3600 C. 40 D. 50
40	$x\sqrt{0.09} = 3: x = ?$	A. 10 B. 1/3 C. 1/10 D. 1