1
In the following choose the word which express the meaning of the same word HESITATED
( ) A. Stopped
( ) B. Paused
( ) C. Slowed
( ) D. Postponed

2
RESCUE
( ) A. Command
( ) B. Help
( ) C. Defence
( ) D. Safety

3
FORAY
( ) A. Maraud
( ) B. Contest
( ) C. Ranger
( ) D. Intuition

4
RECKLESS
( ) A. Courageous
( ) B. Rash
( ) C. Bold
( ) D. Daring

5
CONSEQUENCES
( ) A. Results
( ) B. Conclusions
( ) C. Difficulties
( ) D. Applications
In the following choose the word which express the opposite meaning of the same word EVASIVE

( ) A. Free
( ) B. Honest
( ) C. Liberal
( ) D. Frank

GREGARIOUS

( ) A. Antisocial
( ) B. Glorious
( ) C. Horrendous
( ) D. Similar

AWARE

( ) A. Uncertain
( ) B. Ignorant
( ) C. Sure
( ) D. Doubtful

HIRSUTE

( ) A. Scaly
( ) B. Bald
( ) C. Erudite
( ) D. Quiet

SHRINK

( ) A. Contract
( ) B. Spoil
( ) C. Expand
( ) D. Stretch
11 Which of the following represents a methodological handicap in the field of astronomy?
   ( ) A. The difficulty of formulating predictive theories.
   ( ) B. The impossibility of evaluating data collected by early observers.
   ( ) C. The difficulty of correlating observed data with theoretical predictions.
   ( ) D. The theoretical problem of reconciling the laws of astronomy with known laws of physics.
   ( ) E. The difficulty of testing hypotheses through experimentation

12 It can be inferred that the author considers predictive theory to be important in astronomy because it
   ( ) A. Can be easily verified on the basis of objective data.
   ( ) B. May provide a framework for further astronomical observation
   ( ) C. May result in confirmation of known physical laws.
   ( ) D. Confirms the validity of data on the origins of the universe
   ( ) E. Often contributes to the advancement of other sciences

13 The passage would be most likely to appear in which of the following.
   ( ) A. A specialized monograph on astrophysics and its methods.
   ( ) B. A newspaper article discussing cosmology.
   ( ) C. A popular discussion of basic physical laws.
   ( ) D. A theoretical essay on chemical elements in the universe

14 With which of the following statements concerning both the predictive and the interpretive roles of astronomical theory would the author be most likely to agree?
   ( ) A. Both focus on discovering which model of the universe is correct.
   ( ) B. Both are useful for validating information collected by observation as well as for testing the application of known physical laws.
   ( ) C. Both have contributed about equally to every advance in astronomy and physics
   ( ) D. None of this
With the development of modern theoretical astrophysics, astronomers are able to explain data collected by early observers and to amass data about previously unknown phenomena in extragalactic optical astronomy. Despite our lack of understanding of these new phenomena, the data is being used for a variety of purposes. In certain cases it is possible, by application of known physical laws, to make theoretical predictions that are subject to observational tests. The prediction of neutron stars is a classic example of the use of this type of theory for purposes of prediction. Another is to be found in the field of cosmology. Much of the current activity in extragalactic astronomy is directed towards deciding which, if any, of the theoretical models of the universe is the most accurate. Starting from Einstein's 10 MISS, that proposed a radically different approach - the steady-state theory of the universe. This cosmology dispensed with the idea of a primordial singularity demanded by Hubble's theory and substituted the concept of continuous creation of matter, which would maintain approximately constant mean density. It is largely within the context of these two theory models that observational work has found both its inspiration and its justification. Theoretical predictions of the type outlined above are of particular importance to astronomy, which is an observational rather than an experimental science. Predictive theory that is concerned with the consequences of physical laws is thus immensely productive in an astronomical context and can lead to lively interaction with the observational aspects of the subject. It would, however, be unfair to suggest that theory usually plays such a guiding role in astronomical endeavor. Indeed, more often, theories are motivated by discoveries. As a result the second major role of theory in astronomy is that of interpretation. In the field of stellar evolution, for example, the general features of the Hertzsprung-Russell diagram (essentially a plot of luminosity versus temperature) had been known for many years before a theoretical interpretation in terms of nuclear processing in unmixed stars could be given. This quantitative explanation opened the way to the development of a method for using the results of stellar-evolution calculations to provide us with quantitative information about stars. In principle, this method can be used to determine the approximate stellar abundances of the chemical elements, stellar masses, and hence stellar ages. Indeed, stellar-evolution theory provides us with the only widely applicable method of dating stellar systems.

The primary purpose of the passage is to

- A. Elucidate ways in which astronomy differs from other sciences
- B. Discuss the roles of observation and theory in astronomy
- C. Present two conflicting views of the origin of the universe
- D. Demonstrate how the laws of physics apply to astronomy
- E. Explain the importance of stellar-evolution theory.

Fate smiles ...... those who untiringly grapple with stark realities of life.

- A. with
- B. over
- C. on
- D. round
17
The miser gazed ...... at the pile of gold coins in front of him.
( ) A. avidly
( ) B. admiringly
( ) C. thoughtfully
( ) D. earnestly

18
Catching the earlier train will give us the ...... to do some shopping
( ) A. chance
( ) B. luck
( ) C. possibility
( ) D. occasion

19
I saw a ...... of cows in the field.
( ) A. group
( ) B. herd
( ) C. swarm
( ) D. flock

20
The grapes are now ...... enough to be picked
( ) A. ready
( ) B. mature
( ) C. ripe
( ) D. advanced

21
In a four-day period Monday through Thursday each of the following temporary office workers worked only one day, each a different day. Ms. Johnson was scheduled to work on Monday, but she traded with Mr. Carter, who was originally scheduled to work on Wednesday. Ms. Falk traded with Mr. Kirk, who was originally scheduled to work on Thursday. After all the switching was done, who worked on Tuesday?
( ) A. Mr. Carter
( ) B. Ms. Falk
( ) C. Ms. Johnson
( ) D. Mr. Kirk

Explanation:

After all the switches were made, Mr. Kirk worked on Tuesday. Mr. Carter worked on Monday, Ms. Johnson on Wednesday, and Ms. Falk on Thursday.
22
Four people witnessed a mugging. Each gave a different description of the mugger. Which description is probably right?
( ) A. He was average height, thin, and middle-aged.
( ) B. He was tall, thin, and middle-aged
( ) C. He was tall, thin, and young.
( ) D. He was tall, of average weight, and middle-aged

Explanation:
Tall, thin, and middle-aged are the elements of the description repeated most often and are therefore the most likely to be accurate.

23
Brian is dividing 50 marbles into 3 groups. How many marbles are in the largest of the three groups?

(1) The sum of the two smaller groups of marbles is equal to the largest group of marbles.

(2) The smallest group contains 6 marbles.

( ) A. Statement (1) ALONE is sufficient, but statement (2) is not sufficient.
( ) B. Statement (2) ALONE is sufficient, but statement (1) is not sufficient.
( ) C. BOTH statements TOGETHER are sufficient, but NEITHER statement ALONE is sufficient.
( ) D. EACH statement ALONE is sufficient.

Explanation: The first statement establishes that the larger group constitutes half of the total amount of marbles, which means it must be equal to 25 marbles.

24
If EASE is coded as HDVH, then SEE will be coded as:
( ) A. DHH
( ) B. VHV
( ) C. VHH
( ) D. VVH
372, 823, 644, 582, 46?, 8?7. Then which digits will come at the place of (?)

( ) A. 6, 7
( ) B. 5, 9
( ) C. 6, 2
( ) D. 5, 3

---

\[
\begin{align*}
372 & \quad 823 & \quad 644 & \quad 582 & \quad 46 & \quad ? & \quad 8 & \quad 7 \\
\hline
372 & = & 3 + 7 + 2 & = & 12 \\
46 & ? & = & 4 + 6 + ? & = & 16 \\
823 & = & 8 + 2 + 3 & = & 13 \\
? & = & 16 - 10 & = & 6 \\
644 & = & 6 + 4 + 4 & = & 14 \\
8 & ? & 7 & = & 8 + ? + 7 & = & 17 \\
582 & = & 5 + 8 + 2 & = & 15 \\
? & = & 2 \\
\therefore & & ? & , & ? = & 6, 2
\end{align*}
\]

---

26
If 1st & 7th, 2nd & 8th, 3rd & 9th and so on are interchanged in the word ACCUMULATION, which will be the 8th letter from the right.

( ) A. O
( ) B. U
( ) C. C
( ) D. M

---

M will be changed into O
27
If SERPENT is coded as TNEPRES, then PLAGUE will be coded

A. EUAGLP
B. EUGLAP
C. EUGALP
D. EULAGP

28
I am standing in a row 9th from either side find that how many persons are in the row.

A. 15
B. 19
C. 17
D. 16

Explanation:

→
8 + 8 + 1 = 17

29
Statement: All windows are doors. No door is a bat

A. No window is bat
B. No bat is door
C. None of this

30
Statement: All glasses are liquids. All liquids are fluids

A. All glasses are fluids
B. All fluids are glasses
C. None of this

31
Statement: Some gold are bright. Some bright are silver

A. Some gold are silver
B. Some bright are gold
C. None of this
32
Statement: All flowers are garden. All gardens are fruits.

( ) A. All fruits are flowers
( ) B. All flowers are fruits.
( ) C. None of this

33
Statement: All poets are singers. No singer is composer.

( ) A. No composer is poet
( ) B. All singers are poet.
( ) C. None of this

34
Is $b$ a positive number?

(1) $1,452(b) > 0$

(2) $-b < 0$

( ) A. Statement (1) ALONE is sufficient, but statement (2) is not sufficient.
( ) B. Statement (2) ALONE is sufficient, but statement (1) is not sufficient.
( ) C. BOTH statements TOGETHER are sufficient, but NEITHER statement ALONE is sufficient.
( ) D. EACH statement ALONE is sufficient
( ) E. Statements (1) and (2) TOGETHER are NOT sufficient.

Explanation:
For (1), the fact that a positive number multiplied by $b$ has a positive product establishes that $b$ is a positive number. For (2), any positive number with a negative sign placed in front of it will become negative, indicating that $b$ is a positive number.

35
Is $x$ greater than $y$?

(1) $x > 2y$

(2) $x - y > 0$

( ) A. Statement (1) ALONE is sufficient, but statement (2) is not sufficient.
( ) B. Statement (2) ALONE is sufficient, but statement (1) is not sufficient.
( ) C. BOTH statements TOGETHER are sufficient, but NEITHER statement ALONE is sufficient.
( ) D. EACH statement ALONE is sufficient.
( ) E. Statements (1) and (2) TOGETHER are NOT sufficient.

Explanation: It would be possible for $x$ and $y$ to be negative numbers and still satisfy the conditions of (1), but it then would be impossible to satisfy (2).
36
What is the average test score of Angela, Barry, Carl, Dennis, and Edward?

(1) The average of the test scores of Barry, Carl, and Edward is 87.

(2) The average of the test scores of Angela and Dennis is 84.

( ) A.Statement (1) ALONE is sufficient, but statement (2) is not sufficient
( ) B.Statement (2) ALONE is sufficient, but statement (1) is not sufficient
( ) C.BOTH statements TOGETHER are sufficient, but NEITHER statement ALONE is sufficient.
( ) D.EACH statement ALONE is sufficient.
( ) E.Statements (1) and (2) TOGETHER are NOT sufficient.

Explanation:
As long as the sum of all five test scores can be calculated, it will be possible to calculate the average score.

37
If y is an integer, is it an odd number?

(1) y^3 \geq 0

(2) y is either an odd number or a negative number

( ) A.Statement (1) ALONE is sufficient, but statement (2) is not sufficient.
( ) B.Statement (2) ALONE is sufficient, but statement (1) is not sufficient.
( ) C.BOTH statements TOGETHER are sufficient, but NEITHER statement ALONE is sufficient.
( ) D.EACH statement ALONE is sufficient.
( ) E.Statements (1) and (2) TOGETHER are NOT sufficient.

Explanation:
In order for (1) to be true, y must be either positive or zero. Therefore, according to the terms of (2), y must be odd.
38
what is a percent of b divided by b percent of a?

( ) A. a  
( ) B. b  
( ) C. 1  
( ) D. 10

**Explanation:**

\[
\text{a percent of b} = \frac{a}{100} \times b \\
\text{b percent of a} = \frac{b}{100} \times a \\
\frac{\text{a percent of b}}{\text{b percent of a}} = \frac{\left(\frac{a}{100}\right) \times b}{\left(\frac{b}{100}\right) \times a} = 1
\]

39
A face of the clock is divided into three parts. First part hours total is equal to the sum of the second and third part. What is the total of hours in the bigger part?

( ) A. 4  
( ) B. 9  
( ) C. 6  
( ) D. 10

**Explanation:**

The clock normally has 12 hr

three parts x, y, z

\[x + y + z = 12\]

\[x = y + z\]

\[2x = 12\]

\[x = 6\]

so the largest part is 6 hrs

40
Five boys were climbing a hill. J was following H. R was just ahead of G. K was between G & H. They were climbing up in a column. Who was the second?

( ) A. K  
( ) B. H  
( ) C. G  
( ) D. J

**Explanation:** The order in which they are climbing is R-G-K-H-J.
It was calculated that 75 men could complete a piece of work in 20 days. When work was scheduled to commence, it was found necessary to send 25 men to another project. How much longer will it take to complete the work?

( ) A.25
( ) B.30
( ) C.40
( ) D.20

Explanation:

Before:
One day work = 1 / 20
One man's one day work = 1 / (20 * 75)

Now:
No. Of workers = 50
One day work = 50 * 1 / (20 * 75)

The total no. of days required to complete the work = (75 * 20) / 50 = 30 days

42
Predict the output or error(s) for the following:

void main()
{
int const * p=5;
printf("%d",++(*p));
}

( ) A. compiler error
( ) B. 6
( ) C. 5
( ) D. 7

Explanation:

Compiler error: Cannot modify a constant value.
   Explanation: a pointer to a "constant integer". But we tried to change the value of the "constant integer".
43
p is main()
{
    int i=10;
    i=!i>14;
    printf("i=%d",i);
}
( ) A.10
( ) B.0
( ) C.14
( ) D.13

Explanation:
In the expression !i>14 , NOT (!) operator has more precedence than ' >' symbol. ! is a unary logical operator. !i (!10) is 0 (not of true is false). 0>14 is false (zero).

44
enum colors {BLACK,BLUE,GREEN}
main()
{
    printf("%d..%d..%d",BLACK,BLUE,GREEN);
    return(1);
}
( ) A.BLACK,BLUE,GREEN
( ) B.0
( ) C.0,1,2
( ) D.BLUE,GREEN

Explanation:
enum assigns numbers starting from 0, if not explicitly defined.

45
A man was engaged on a job for 30 days on the condition that he would get a wage of Rs. 10 for the day he works, but he have to pay a fine of Rs. 2 for each day of his absence. If he gets Rs. 216 at the end, he was absent for work for ... days
( ) A.6
( ) B.12
( ) C.7
( ) D.21
Explanation:

The equation portraying the given problem is:

\[10 \times x - 2 \times (30 - x) = 216\] where \(x\) is the number of working days.

Solving this we get \(x = 23\)

Number of days he was absent was 7 (30-23) days

46
Eight friends Harsha, Fakis, Balaji, Eswar, Dhinesh, Chandra, Geetha, and Ahmed are sitting in a circle facing the center. Balaji is sitting between Geetha and Dhinesh. Harsha is third to the left of Balaji and second to the right of Ahmed. Chandra is sitting between Ahmed and Geetha and Balaji and Eshwar are not sitting opposite to each other. Who is third to the left of Dhinesh?

( ) A. Eswar
( ) B. Chandra
( ) C. Geetha
( ) D. Balaji

47
If a light flashes every 6 seconds, how many times will it flash in \(\frac{3}{4}\) of an hour?

( ) A. 450
( ) B. 451
( ) C. 350
( ) D. 425

Explanation:

There are 60 minutes in an hour.

In \(\frac{3}{4}\) of an hour there are \((60 \times \frac{3}{4})\) minutes = 45 minutes.

In \(\frac{3}{4}\) of an hour there are \((60 \times 45)\) seconds = 2700 seconds.
Light flashed for every 6 seconds.

In 2700 seconds \( \frac{2700}{6} = 450 \) times.

The count start after the first flash, the light will flashes 451 times in \( \frac{3}{4} \) of an hour.

48
With \( \frac{4}{5} \) full tank vehicle travels 12 miles, with \( \frac{1}{3} \) full tank how much distance travels?.

- A. 6
- B. 5
- C. 8
- D. 3

Explanation: \( \frac{4}{5} \) full tank = 12 mile

\[ 1 \text{ full tank} = 12 \div (\frac{4}{5}) \]

\[ \frac{1}{3} \text{ full tank} = 12 \div (\frac{4}{5}) \times (\frac{1}{3}) = 5 \text{ miles} \]

49
wind blows 160 miles in 330 min. for 80 miles how much time required?.

- A. 160
- B. 175
- C. 165
- D. 160

Explanation: 160 miles = 330 min

\[ 1 \text{ mile} = \frac{330}{160} \]

\[ 80 \text{ miles} = \frac{(330 \times 80)}{160} = 165 \text{ min} \]

50
Three companies are working independently and receiving the savings 20%, 30%, 40%. If the companies work combinely, what will be their net savings?

- A. 20
- B. 30
- C. 40
- D. 50

Explanation: suppose total income is 100 \( \text{http://www.ChetanaS.org} \)

so amount x is getting is 80

y is 70

z = 60
total=210

but total money is 300
300-210=90
so they are getting 90 rs less
90 is 30% of 300 so they r getting 30% discount

51
The ratio of incomes of C and D is 3:4, the ratio of their expenditures is 4:5. Find the ratio of their savings if the savings of C is one fourth of his income?

( ) A. 11/18
( ) B. 12/18
( ) C. 12/19
( ) D. 11/19

Explanation: incomes: 3:4
expenditures: 4:5
3x - 4y = 1/4(3x)
12x - 16y = 3x
9x = 16y
y = 9x/16
(3x - 4(9x/16))/((4x - 5(9x/16)))
ans: 12/19

52
If G(0) = -1, G(1) = 1 and G(N) = G(N-1) - G(N-2) then what is the value of G(6)?

( ) A. 0
( ) B. 1
( ) C. -1
( ) D. -2

Explanation: bcoz g(2) = g(1) - g(0) = 1 + 1 = 2

<table>
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<th>g(n)</th>
</tr>
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<tr>
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<td>6</td>
<td>-1</td>
</tr>
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</table>
53
If A can copy 50 pages in 10 hours and A and B together can copy 70 pages in 10 hours, how much
time does B takes to copy 26 pages?

( ) A.4
( ) B.3
( ) C.5
( ) D.1

Explanation: A can copy 50 pages in 10 hrs.
A can copy 5 pages in 1hr.(50/10)
now A & B can copy 70 pages in 10hrs.
thus, B can copy 90 pages in 10 hrs.[eqn. is (50+x)/2=70, where x--> no. of pages B can copy in 10 hrs.]
so, B can copy 9 pages in 1hr.
therefore, to copy 26 pages B will need almost 3hrs.
since in 3hrs B can copy 27 pages.

54
what's the answer for that :
A, B and C are 8 bit no's. They are as follows:
A -> 1 1 0 0 0 1 0 1  
B -> 0 0 1 1 0 0 1 1  
C -> 0 0 1 1 1 0 1 0 ( - =minus, u=union)
Find ((A - C) u B) =?

( ) A.10111011  
( ) B.10111110  
( ) C.10011110  
( ) D.10001111

Explanation: To find A-C, We will find 2's compliment of C and them add it with A,
That will give us (A-C)
2's compliment of C=1's compliment of C+1
=11000101+1=11000110
A-C=11000101+11000110
=10001001
Now (A-C) U B is .OR. logic operation on (A-C) and B
10001001 .OR . 00110011
The answer is = 10111011,
Whose decimal equivalent is 187.
55
One circular array is given (means memory allocation takes place in circular fashion)
dimension (9X7) and starting add. is 3000, What is the address of (2,3)....... 

( ) A. 3112  
( ) B. 3012  
( ) C. 3102  
( ) D. 3120

Explanation: it’s a 9x7 int array so it require a 126 bytes for storing. b'ze integer value need 2 byes of memory allocation. and starting add is 3000 so starting add of 2x3 will be 3012.

56
In a two-dimensional array, X (9, 7), with each element occupying 4 bytes of memory, with the address of the first element X (1, 1) is 3000, find the address of X (8, 5).

( ) A. 3212  
( ) B. 3122  
( ) C. 3211  
( ) D. 3210

Explanation: initial x (1, 1) = 3000 u hav to find from x(8,1) so u have x(1,1), x(1,2) ... x(7,7) = so u have totally 7 * 7 = 49 elements u need to find for x(8,5) ? here we have 5 elements each element have 4 bytes : (49 + 5 -1) * 4 = 212 -----(-1 is to deduct the 1 element) 3000 + 212 = 3212

57
A person had to multiply two numbers. Instead of multiplying by 35, he multiplied by 53 and the product went up by 540. What was the raised product?

( ) A. 780  
( ) B. 1040  
( ) C. 1590  
( ) D. 1720

Explanation: x*53-x*35=540=> x=30 therefore, 53*30=1590

58
How many positive integer solutions does the equation 2x+3y = 100 have?

( ) A. 50  
( ) B. 33  
( ) C. 16  
( ) D. 35

Explanation: There is a simple way to answer this kind of Q’s given 2x+3y=100, take l.c.m of ‘x’ coeff and ‘y’ coeff i.e. l.c.m of 2,3 ==6then divide 100 with 6, which turns out 16 hence answer is 16 short cut formula--- constant / (l.cm of x coeff and y coeff)
59
The total expense of a boarding house are partly fixed and partly variable with the number of boarders. The charge is Rs.70 per head when there are 25 boarders and Rs.60 when there are 50 boarders. Find the charge per head when there are 100 boarders.

( ) A.65
( ) B.55
( ) C.50
( ) D.45

Explanation: Let \( a \) = fixed cost and \( k \) = variable cost and \( n \) = number of boarders

- total cost when 25 boarders \( c = 25 \times 70 = 1750 \) i.e. \( 1750 = a + 25k \)
- total cost when 50 boarders \( c = 50 \times 60 = 3000 \) i.e. \( 3000 = a + 50k \)

Solving above 2 eqns, \( 3000 - 1750 = 25k \) i.e. \( 1250 = 25k \) i.e. \( k = 50 \)

Therefore, substituting this value of \( k \) in either of above 2 eqns we get

- \( a = 500 \) (\( a = 3000 - 50 \times 50 = 500 \) or \( a = 1750 - 25 \times 50 = 500 \))

So total cost when 100 boarders \( c = a + 100k = 500 + 100 \times 50 = 5500 \)

So cost per head = \( \frac{5500}{100} = 55 \)

60
Amal bought 5 pens, 7 pencils and 4 erasers. Rajan bought 6 pens, 8 erasers and 14 pencils for an amount which was half more than what Amal had paid. What % of the total amount paid by Amal was paid for pens?

( ) A.37.5
( ) B.62.5
( ) C.50
( ) D.None of these

Explanation: Let, 5 pens + 7 pencils + 4 erasers = \( x \) rupees

so 10 pens + 14 pencils + 8 erasers = \( 2x \) rupees

Also mentioned, 6 pens + 14 pencils + 8 erasers = \( 1.5x \) rupees

so (10-6) = 4 pens = \( (2-1.5)x \) rupees

so 4 pens = 0.5x rupees => 8 pens = \( x \) rupees

So 5 pens = \( 5x/8 \) rupees = \( 5/8 \) of total (Note \( x \) rupees is total amt paid by amal)

i.e \( 5/8 = 500/8\% = 62.5\% \) is the answer