AP ICET 11th September 2020 Shift-1

Analytical Ability

Instructions [1 - 20]

In the following questions, a question is followed by data in the form of two statements labelled as I and II. You must decide whether the data given in the statements are sufficient to answer the questions.

1. **For non-zero real numbers a and b what is the value of $\frac{2a+3b}{3a+2b}$**
   I) a > 0, b = 2
   II) $\frac{b}{a} = \frac{1}{6}$

A if the statement I alone is sufficient to answer the question.

B if the statement II alone is sufficient to answer the question.

C if the statements I and II together are sufficient to answer the question but neither statement alone is sufficient.

D if both the statements I and II together are not sufficient to answer the question and additional data is required.

Answer: B

2. **Is n an even integer?**
   I) n is the square of an integer
   II) n is the cube of an integer

A if the statement I alone is sufficient to answer the question.

B if the statement II alone is sufficient to answer the question.

C if the statements I and II together are sufficient to answer the question but neither statement alone is sufficient.

D if both the statements I and II together are not sufficient to answer the question and additional data is required.

Answer: D

3. **If a, b, c, d are in Arithematic Progression what is the value of d - b?**
   I) a + b + c = 40
   II) The common difference of that A.P is 4

A if the statement I alone is sufficient to answer the question.

B if the statement II alone is sufficient to answer the question.

C if the statements I and II together are sufficient to answer the question but neither statement alone is sufficient.

D if both the statements I and II together are not sufficient to answer the question and additional data is required.

Answer: B

4. **How many students failed in Mathematics and Natural Science?**
   I) 12 student, passed in both Mathematics and Natural Science.
   II) The number of passes in Mathematics exceed the number of passes in Natural Science by 8.

A if the statement I alone is sufficient to answer the question.

B if the statement II alone is sufficient to answer the question.

C if the statements I and II together are sufficient to answer the question but neither statement alone is sufficient.

D if both the statements I and II together are not sufficient to answer the question and additional data is required.

Answer: D

5. **Is n a prime number?**
   I) $m = n^3$
   II) m has more than four divisons

A if the statement I alone is sufficient to answer the question.

B if the statement II alone is sufficient to answer the question.

C if the statements I and II together are sufficient to answer the question but neither statement alone is sufficient.

D if both the statements I and II together are not sufficient to answer the question and additional data is required.

Answer: C

6. **What is the number of divisions of n?**
   I) $n = n^4$
   II) $a = p^2q$**, where p and q are distinct prime numbers**

A if the statement I alone is sufficient to answer the question.

B if the statement II alone is sufficient to answer the question.

C if the statements I and II together are sufficient to answer the question but neither statement alone is sufficient.

D if both the statements I and II together are not sufficient to answer the question and additional data is required.

Answer: C

7. **Is P the mother of Q?**
   I) P is not the brother of Q's Paternal uncle
   II) Q is the daughter of P

A if the statement I alone is sufficient to answer the question.

B if the statement II alone is sufficient to answer the question.

C if the statements I and II together are sufficient to answer the question but neither statement alone is sufficient.

D if both the statements I and II together are not sufficient to answer the question and additional data is required.

Answer: C

8. **How long would Gopal take to complete the work?**
   I) Goapl takes 10 days more than Shyam to complete the work.
   II) Gopal and Shyam together can complete the work in 20 days

A if the statement I alone is sufficient to answer the question.

B if the statement II alone is sufficient to answer the question.

C if the statements I and II together are sufficient to answer the question but neither statement alone is sufficient.

D if both the statements I and II together are not sufficient to answer the question and additional data is required.

Answer: C

9. **What is the age of A?**
   I) A is younger to B
   II) The age of B is 20 years

A if the statement I alone is sufficient to answer the question.

B if the statement II alone is sufficient to answer the question.

C if the statements I and II together are sufficient to answer the question but neither statement alone is sufficient.

D if both the statements I and II together are not sufficient to answer the question and additional data is required.

Answer: D

10. **What is the value of $\sin 4\theta$?**
I) $\tan 2\theta + \cot 2\theta = 7$
II) $\sec 2\theta + \operatorname{cosec} 2\theta = 5$

A if the statement I alone is sufficient to answer the question.

B if the statement II alone is sufficient to answer the question.

C if the statements I and II together are sufficient to answer the question but neither statement alone is sufficient.

D if both the statements I and II together are not sufficient to answer the question and additional data is required.

Answer: A

11. **What is the difference between two two-digit numbers?**
I) The square of the first number is 16 times the second number
II) The ratio of the first number to the second number is 4 : 5

A if the statement I alone is sufficient to answer the question.

B if the statement II alone is sufficient to answer the question.

C if the statements I and II together are sufficient to answer the question but neither statement alone is sufficient.

D if both the statements I and II together are not sufficient to answer the question and additional data is required.

Answer: C

12. **Does the equation $ax + by + c = 0$ represent a striaght line ?**
I) $a^2 \geq 0$
II) $b^2 \geq 0$

A if the statement I alone is sufficient to answer the question.

B if the statement II alone is sufficient to answer the question.

C if the statements I and II together are sufficient to answer the question but neither statement alone is sufficient.

D if both the statements I and II together are not sufficient to answer the question and additional data is required.

Answer: B

13. **If n is a positive integer, then what is the largest positive integer k such that 10^k divides n?**
I) 2^5 divides n
II) 5^2 divides n

A if the statement I alone is sufficient to answer the question.

B if the statement II alone is sufficient to answer the question.

C if the statements I and II together are sufficient to answer the question but neither statement alone is sufficient.

D if both the statements I and II together are not sufficient to answer the question and additional data is required.

Answer: D

14. **What are the four consecutive terms of the arithematic progression with positive common difference?**
I) Sum of the four consecutive terms is 24
II) Product of the second and third terms is 8 more than the product of the first and the fourth terms

A if the statement I alone is sufficient to answer the question.

B if the statement II alone is sufficient to answer the question.

C if the statements I and II together are sufficient to answer the question but neither statement alone is sufficient.

D if both the statements I and II together are not sufficient to answer the question and additional data is required.

Answer: C

15. **What is that month of a leap year?**
I) That month starts with monday and ends with tuesday.
II) That month starts with Monday and ends with Monday.

A if the statement I alone is sufficient to answer the question.

B if the statement II alone is sufficient to answer the question.

C if the statements I and II together are sufficient to answer the question but neither statement alone is sufficient.

D if both the statements I and II together are not sufficient to answer the question and additional data is required.

Answer: B

16. **What is the determinant of the matrix A?**
I) A is a 3 X 3 matrix
II) 6 elements in the matrix A are zero

A if the statement I alone is sufficient to answer the question.

B if the statement II alone is sufficient to answer the question.

C if the statements I and II together are sufficient to answer the question but neither statement alone is sufficient.

D if both the statements I and II together are not sufficient to answer the question and additional data is required.

Answer: D

17. **What is the area of the rhombus?**
I) Three vertices of the rhombus lie on the circumfrence of a circle and the fourth lies at the center of that circle whose radius is 4 cm.
II) one of the diagonal of the rhombus is $2\sqrt{3}$ cm

A if the statement I alone is sufficient to answer the question.

B if the statement II alone is sufficient to answer the question.

C if the statements I and II together are sufficient to answer the question but neither statement alone is sufficient.

D if both the statements I and II together are not sufficient to answer the question and additional data is required.

Answer: A

18. **A natural number with a given specified property S is chosen at random from 1 to 100. Is the number chosen a prime number?**
I) The probability of choosing that number is $\frac{1}{4}$
II) There are 25 prime numbers between 1 and 100

A if the statement I alone is sufficient to answer the question.

B if the statement II alone is sufficient to answer the question.

C if the statements I and II together are sufficient to answer the question but neither statement alone is sufficient.

D if both the statements I and II together are not sufficient to answer the question and additional data is required.

Answer: D

19. **What are the three numbers x, y and z?**
I) The numbers x, y, z are in the ratio 2 : 3 : 5
II) $x^2 + y^2 + z^2 = 152$

A if the statement I alone is sufficient to answer the question.

B if the statement II alone is sufficient to answer the question.

C if the statements I and II together are sufficient to answer the question but neither statement alone is sufficient.

D if both the statements I and II together are not sufficient to answer the question and additional data is required.

Answer: D

20. **A takes less than 2 hours for his journey from home to office. Is his average speed greater than 60 km/hr?**
I) The distance from his home to office is less than 125 km
II) The distance from his home to office is greater than 122 km

A if the statement I alone is sufficient to answer the question.

B if the statement II alone is sufficient to answer the question.

C if the statements I and II together are sufficient to answer the question but neither statement alone is sufficient.

D if both the statements I and II together are not sufficient to answer the question and additional data is required.

Answer: B

Instructions [21 - 30]

Note: In each of the Following 10 questions a sequence of numbers or letters that follow a definite pattern is given. Each question has a blank space. This has to be filled by the correct answer from the four given options to complete the sequence without breaking the pattern.

21. **5 : 121 :: _____ : 169**

A 13

B 8

C 9

D 6

Answer: D

22. **13 : 225 ::: 17 ; _____**

A 256

B 289

C 361

D 324

Answer: C

23. **12 : 140 :: 17 : _____**

A 295

B 285

C 289

D 287

Answer: B

24. **8 : 216 :: 9 : _____**

A 342

B 243

C 323

D 347

Answer: A

25. **5 : 49 :: 13 : _____**

A 298

B 189

C 278

D 289

Answer: D

26. **MISTER : SAVTEN :: RANDOM : _____**

A LEFPUN

B NIFPUN

C NIFPUS

D LEFPUS

Answer: C

27. **17161 : 131 :: _____ : 121**

A 14621

B 14641

C 15641

D 15621

Answer: B

28. **11 : 1342 :: 9 : _____**

A 729

B 738

C 740

D 879

Answer: B

29. $\begin{matrix} C \\ L \end{matrix} : \begin{matrix} 24 \\ 27 \end{matrix} :: \begin{matrix} E \\ N \end{matrix}$: _____

A $\frac{28}{45}$

B $\frac{56}{45}$

C $\frac{54}{56}$

D $\frac{48}{54}$

Answer: A

30. **MOUSE : KPSTC :: LIGHT : _____**

A MJHIU

B MGHFU

C JGEFR

D JJEIR

Answer: D

Instructions [31 - 35]

In the following questions pick the odd thing out.

A 11

B 21

C 31

D 41

Answer: B

A 124

B 63

C 217

D 26

Answer: C

A MNO

B DEF

C HIJ

D PRS

Answer: D

A XD6

B VK2

C JBS

D PH3

Answer: D

A FATE

B GATE

C HATE

D LATE

Answer: B

Instructions [31 - 40]

Note: The following questions follow a definite pattern. Observe the same and fill in the blanks with suitable answers.

31. **How many '8's are present in the following sequence of numbers which are preceded by '9' but not followed by '6'?**

    219854398709868939812 9

A 1

B 2

C 3

D 4

Answer: C

32. **3, 8, 24, 48, 120, _____ ?**

A 169

B 144

C 143

D 168

Answer: D

33. **9, 16, 36, 64, _____**

A 121

B 144

C 81

D 100

Answer: B

34. **BA, CE, EI, GO, _____**

A IU

B KS

C KU

D IS

Answer: C

35. **3, 6, 10, 4, 8, 12, 5, 10, _____**

A 16

B 12

C 14

D 15

Answer: C

36. **12, 16 _____ ,35, 54, 82**

A 19

B 23

C 28

D 32

Answer: B

37. **672, 600, 544, 502, _____ 452**

A 494

B 486

C 484

D 472

Answer: D

38. **52, 97, _____ , 327, 617, 1187**

A 132

B 157

C 177

D 185

Answer: C

39. **20, 24, 15, _____ , 6, 42**

A 37

B 31

C 2

D 21

Answer: B

40. **1892, 2070, 2256, 2450, _____**

A 2652

B 2742

C 2592

D 2672

Answer: A

Instructions [41 - 43]

Note

Figures in the following table give the number (in lakhs) of cars produced and sold by companies P,Q,R and S per year. Use this information to answer the questions

Company → / ↓Year	P		Q		R		S	
	Production	Sales	Production	Sales	Production	Sales	Production	Sales
2011	2.8	1.2	2.2	1.4	3.1	2.7	2.7	1.5
2012	3.3	1.3	1.7	0.5	2.3	1.3	2.8	1.2
2013	3.8	1.4	1.9	0.9	2.7	1.2	3.2	1.6
2014	2.5	1.3	1.6	1.2	3.4	2.4	2.2	1.6
2015	2.2	1.2	2.8	0.8	2.2	1.3	1.9	0.6

41. **What is the ratio of the total sales of company P to that of company S for the years 2012, 2014, and 2015 taken together?**

A 15 : 13

B 21 : 23

C 25 : 27

D 19 : 17

Answer: D

42. **What is the percentage change in the number of unsold cars of company P in the year 2014 when compared to previous year?**

A 25% increase

B 50% decrease

C 50% increase

D $33\frac{1}{3}$ decrease

Answer: B

43. **What is the total number (in lakhs) of unsold cars of the given four companies together during the year 2013?**

A 6.5

B 4.7

C 5.7

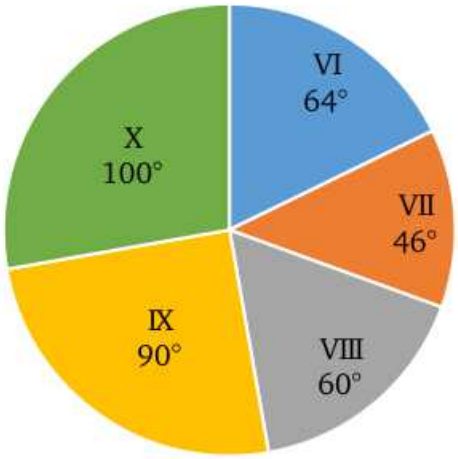
D 7.4

Answer: A

Instructions [44 - 48]

Note:

The total number of students in a certain school is 1440. The following pie chart shows the student strengths in various classes in the school. Based on this, answer the questions.



44. **How many students are there in class VII?**

A 184

B 148

C 192

D 176

Answer: A

45. **The ratio between the student strengths of classes VI and VII is**

A 35 : 23

B 32 : 23

C 23 : 32

D 32 : 25

Answer: B

46. **The percentage of student strength in class X in the whole school is approximately**

A 30%

B 27%

C 29%

D 28%

Answer: D

47. **The difference between the student strengths of classes VI and X is**

A 136

B 140

C 144

D 148

Answer: C

48. **The percentage of student strength of classes VI and VII put together in the whole school is (approximately)**

A 31%

B 28%

C 30%

D 29%

Answer: A

Instructions [49 - 50]

Note:
There are 176 households of 4 members each in a locality who use atleast one of Himalaya(H), Dabur(D)

and Hindusthan uni lever (HUL) products, 415 persons use product H. The number of persons who use product D is 50 less than those who use product H and 25 more than those who use product HUL. 102 persons use only products of HUL, number of persons who use only products of H as well as D is 20 less than those who use only products of H and HUL and 5 less than the number of persons who use all the three products. Number of persons who only use products of D and HUL is 58; Based on this information, answer the questions

49. **How many persons use only one company products**

A 368

B 375

C 386

D 395

Answer: B

50. **What is the total number of persons who use atleast two types of products?**

A 264

B 292

C 312

D 329

Answer: D

Instructions [51 - 55]

Note :

Based on the code given below and the rules (1) and (2) answer the questions

LETTER	A	E	S	P	H	F	L	I	M	N	G	T	V
CODE	*	%	#	$	£	@	?	<	1	2	3	4	5

Rules

(1) If the first and the last entries of a word are vowels then the first is coded by X and the last by Y
(2) If the first and the last entries of a word are consonents their respective codes are interchanged.

51. **What is the code for FLASH?**

A @ ? * # £

B £ ? * # @

C £ * # ? @

D @ # * £ ?

Answer: B

52. **What is the code for 'ALPHA'?**

A X ? $ £ X

B * ? $ £ *

C X ? $ £ Y

D * $? £ %

Answer: C

53. **What is the code for 'MANAGEMENT'?**

A 1 * 2 * 3 % 4 % 24

B 1 * 3 * 2 £ % # 24

C 4 # @ £ % * * ? 21

D 4 * 2 * 3 % 4 % 21

Answer: D

54. **Which is coded as '$?*2%'?**

A PLANE

B PLATE

C GRACE

D PHASE

Answer: A

55. **Which word is coded as 4 ? * 2 % $?**

A PLANTE

B PLANET

C PLEANT

D PLENTA

Answer: B

56. **If 'BLISS' is coded a 'DNKUU' , then 'APICET' is coded as**

A CRKFGV

B CRKEGV

C CRKEHV

D CRKEGW

Answer: B

57. **If 'GROUP' is coded as 'FQNTO' , then 'FLIGHT' is coded as**

A EKHFGR

B EKHFIR

C EKHFGS

D EKHFGT

Answer: C

58. **If 'CODE' is coded as 'FRGH', then 'EIGHT' is coded as**

A HLIKW

B HLJKX

C HLJLW

D HLJKW

Answer: D

59. **In a certain code language 'CARRY' is written a 'EYITW'. How is 'GREET' written in that code language?**

A JQGGR

B IPGGR

C IPGGV

D IPVGR

Answer: D

60. **In a certain in code language 'PROTECT' is written as 'MSRGRDG' and 'VIBRANT' is written as 'ZJXIROC'. What will be the code for 'KINETIC' in the given code language?**

A LJMVAJV

B LJMDAJV

C LJMVBJV

D LJMCAJV

Answer: A

61. **It was Sunday 17^{th} Feb, 2019. Wat will be the day of the week on 12th March, 2020?**

A Tuesday

B Wednesday

C Thursday

D Friday

Answer: C

62. **At what time between 5 and 6 '0 clock do the hands of a clock coincide?**

A $27\frac{3}{11}$ minutes behind 6

B $28\frac{3}{11}$ minutes behind 6

C $26\frac{3}{11}$ minutes past 5

D $27\frac{3}{11}$ minutes past 5

Answer: D

63. **When a clock shows 5.35, what is the acute angle between the hours and minutes hands?**

A $44\frac{1}{2}^{\circ}$

B $47\frac{1}{2}^{\circ}$

C $48\frac{1}{2}^{\circ}$

D $42\frac{1}{2}^{\circ}$

Answer: D

64. **If P is the brother of the son of Q's son, how is P related to Q?**

A Grand daughter

B Grand son

C Son

D Brother

Answer: B

65. **Reaching the place of meeting on Sunday 20 minutes before 8.30 A.M, Praveen found himself 35 minutes earlier than the man who is 45 minutes late to the meeting. What was the scheduled time of meeting?**

A 8.20 A.M

B 8.10 A.M

C 8.15 A.M

D 8.00 A.M

Answer: D

66. **Distance between two cities A and Bis 595 km. Two cars P and Q start from A and B respectively at the same time with speeds 90 kmph and 80 kmph and proceeding towards B and A respectively . Then the time taken for the two cars to meet after their start is**

A 3 hrs

B 3 hrs 15 min

C 3 hrs 30 min

D 3 hrs 45 min

Answer: C

67. **D, E, F, G, H, I, J and K are sitting around a circular table facing the center but not necessarily in the same order. F sits second to the left of E. Only one person sits between F and I. D sits third to the right of G. F is an immediate neighbour of H. D is not an immediate neighbour of E. Only three persons sit between G and J. What is the position of H with respect to D.**

A Fourth to the left

B Second to the right

C Fourth to the right

D Third to the Right

Answer: D

68. **Consider the following sequence**
W % 9 3 G 6 H # 7 K $ L 2 ? B M J © 4 5 E 8 @ Z

If all the symbols are deleted from the above sequence, then which one of the following will be of fourth to the left of twelth from the right end.

A 9

B 3

C W

D M

Answer: B

69. **If P denotes $\div$, Q denotes $\times$, R denotes + and S denotes - , then the value of 14Q27P9R5S19**

A 47

B 42

C 32

D 28

Answer: D

70. **If x $\square$ y represents the number of integers gr eater than x and less than y, then** $-\pi \square \sqrt{2} =$

A 3

B 4

C 5

D 6

Answer: C

Mathematical Ability

71. **If $2^{-x} = 3^{y} = 18^{z}$, then x, y, z are in**

A Arithmetic Progression

B Geometric Progression

C Harmonic Progression

D Arithmetic-Geometric Progression

Answer: C

72. **If $\left(x\sqrt{x}\right)^{x^2} = (x)^{x\sqrt{x}}$, and if $x \notin \{0,1\}$, then $x =$**

A $\frac{2}{3}$

B $\frac{3}{2}$

C $\frac{4}{9}$

D $\frac{9}{4}$

Answer: C

73. **Container A is filled with the mixture of milk and water in the ratio 1 : 3. The other two containers B and C are filled with milk and water in the ratio 5:3 and 1:5 respectively. If the contents of all the three containers are mixed, then the ratio of milk and water in the whole mixture when the capacities of the containers A, B, C are in the ratio 1:2:3, is**

A 6 : 7

B 13 : 11

C 15 : 13

D 9 : 13

Answer: B

74. **A college has a total of 1400 seats for the three courses A, B, C. There is an increase in seats by 40%, 50% and 75% respectively in the courses A, B, C. If the ratio of the seats in these courses prior to the increase is 5:7:8, then the difference of the number of seats in courses C and A after increase is equal to**

A The number of seats of A prior to increase

B The number of seats of A after increase

C the number of seats of B after increase

D the number of seats of C after increase

Answer: B

75. **If** $\sqrt{7+4\sqrt{3}}\sqrt{37+20\sqrt{3}}=x+y\sqrt{3}$**, then** $4x+3y=$

A 91

B 67

C 41

D 82

Answer: A

76. **If** $a=\sqrt{9}-\sqrt{7}, b=\sqrt{7}-\sqrt{5}, C=\sqrt{11}-\sqrt{9}$ **and** $d=\sqrt{5}-\sqrt{3}$ **then**

A $b>c>a$

B $a>c>b$

C $d>a>b$

D $d>b>c$

Answer: D

77. **If** $56628=2^{B_1}3^{B_2}7^{B_3}11^{B_4}13^{B_5}17^{B_6}$ **then** $(B_1+B_3+B_5)-(B_2+B_4+B_6)=$

A +1

B 0

C -1

D 5

Answer: C

78. **The sum of all 3 digit numbers divisible by 5 is**

A 72600

B 98550

C 93800

D 81750

Answer: B

79. **The nearest integer to the mean proportional of 40,000 and 90,000 which when divided by each of 8, 15, 21 leaves the GCD of these numbers as remainder, is**

A 59999

B 60481

C 59641

D 58801

Answer: C

80. **The smallest number to be subtracted from 2305 such that the resulting number when divided by 9, 10, 15 gives the same remainder 5 in each case is**

A 50

B 220

C 55

D 150

Answer: A

81. **If a, b, c ∈ ℝ and $a \neq b \neq c$, then**

$$\frac{(a-b)^2}{(b-a)(c-a)} + \frac{(b-c)^2}{(a-b)(c-a)} + \frac{(c-a)^2}{(a-b)(b-c)}$$

A 1

B -1

C 3

D -3

Answer: C

82. **If the GCD of (p, q) = 1 and the reciprocal of the sum of the reciprocals of $\frac{5}{7}, \frac{8}{9}, \frac{6}{11}$ is $\frac{p}{q}$ q - 2p =**

A 786

B 283

C 403

D 856

Answer: B

83. $2\frac{2}{3} + \frac{7}{8} \div \frac{3}{4} - \frac{1}{2} \times 2\frac{1}{2} =$

A $\frac{31}{12}$

B $\frac{125}{36}$

C $\frac{190}{18}$

D $\frac{25}{3}$

Answer: A

84. **If $l < x < m < y < n < z < t$ then, which one of the following is true?**

A $(x - t)(y - l)(n - z)(m - t) > 0$

B $(t - l)(z - y)(n - m)(y - x) < 0$

C $(t - l)(x - z)(n - y) < 0$

D $(x - z)(n - t)(l - y) > 0$

Answer: C

85. **A person saves 20% of his monthly salary. Due to rise in the prices, his savings is decreased by 80%. If his monthly expenses after price rise are Rs, 48,000, then his annual income (in Rs.) is**

A 4,80,000

B 6,00,000

C 5,00,000

D 3,00,000

Answer: B

86. **In examination a student A, got 20% less than the qualifying mark and mother student B got 20% more than the qualifing mark. If the difference of their obtained marks is 30, then the ratio of the marks obtained by A and B is**

A 5 : 8

B 3 : 4

C 2 : 3

D 4 : 5

Answer: C

87. **If the cost price of 8 bananas is equal to the selling price of 9 bananas, the loss/gain percentage is**

A $11\frac{8}{9}$ loss

B $11\frac{1}{9}$ gain

C $11\frac{1}{9}$ loss

D $11\frac{8}{9}$ gain

Answer: C

88. **By selling an article for Rs. 1725, a merchant gets a loss of 8%. Had he sold the same for Rs. 2100, the profit percent he gets is**

A 6

B 8

C 10

D 12

Answer: D

89. **A invested a certain amount in a business with B as a partner. A looks after the management of the business and takes 10% of the profit as his remuneration. If B invests Rs. 12,000 and A gets a total of Rs. 4200 which includes his remuneration from the profit of Rs. 9600, then the investment of A (in thousands of Rs.) is**

A 2.0

B 15

C $\frac{36}{5}$

D $\frac{21}{8}$

Answer: C

90. **Y started a business by investing an amount of Rs. 45,000. After 3 months P joined him with a capital of Rs. 60,000. After another 6 months X joined them with a certain amount a, capital. At the end of the year, if X's share is Rs. 4000 out of a profit of Rs. 20,000, then the investment of X(in Rs.) is**

A 75,000

B 90,000

C 1,00,000

D 65,000

Answer: B

91. **Two pipes A and B can fill a cistern independently in 12 min and 15 min, respectively. A pipe C at the bottom of the cistern empties the tank. When all the three pipes are opened, the cistern will be filled in 20 min. A pipe D fixed at the bottom of the cistern working along with A, B and C will empty the full cistern in 20 min. The time taken by D (in minutes) to empty the full cistern independently is**

A 20

B 15

C 12

D 10

Answer: D

92. **Two pipes P and Q can fill a tank in $1\frac{1}{2}$ hours and $2\frac{1}{2}$ hours respectively. When both the pipes are opened in order to fill the tank in 2 hours, the pipe P must be turned off after**

A 15 min

B 18 min

C 24 min

D 30 min

Answer: B

93. **Two buses start from stations A and B at the same time and travelled towards each other at speeds of 50 kmph and 60 kmph respectively. By the time they meet each other, one bus travelled 120km more than the other. They continued their journey to the stations B and A respectively. By the time one of the buses reach its destination, the distance (in kms.) to be covered by the other bus to reach its destination is**

A 720

B 120

C 600

D 220

Answer: D

94. **A student starts form his house to his school far away by $1\frac{3}{4}$ km, reached 6 minutes late travelling with a speed of $2\frac{1}{2}$ kmph. The speed by which he has to increase so as to reach the school 6 min early (in kmph) is**

A $3\frac{1}{2}$

B 1

C $\frac{1}{2}$

D $3\frac{1}{4}$

Answer: B

95. **16 men by working 5 hours a day can complete a work in 15 days. 20 men by working 3 hours a day could complete one fourth of that work in x days. If the working hours per day is fixed at 9 hours, and the number of men required to complete the remaining $\frac{3}{4}$ of the work in 4 days is y, then (x, y)=**

A (5, 15)

B (8, 25)

C (5, 25)

D (8, 20)

Answer: C

96. **A and B undertake to do a piece of work for Rs 1000. A alone can do it in 5 days and B alone can do it in 10 days. With the help of C, all the three together finished it in 2 days. The amount (in Rs.) C gets for his part of work is**

A 400

B 200

C 600

D 300

Answer: A

97. **The cost (in Rs.) of painting the four walls and the ceiling of a room with length, breadth and height respectively 5m, 4m, 3.5m, if the rate of painting is Rs 115 per sq.meter is**

A 12,450

B 8,435

C 9,545

D 9,560

Answer: C

98. **4 cows are tethered one each to the 4 corners of a square field of side 56 meters for grazing so that they can reach one another on its sides at the midpoint. The area (in sq.meters) left un-grazed by the cows is (Take $\pi = \frac{22}{7}$)**

A 762

B 672

C 872

D 772

Answer: B

99. **If the volume of a sphere and a cube are equal, then the ratio of their respective surface areas is**

A $\sqrt[3]{11} : 1$

B $3 : 7$

C $\sqrt[3]{11} : \sqrt{11}$

D $\sqrt[3]{11} : \sqrt[3]{21}$

Answer: D

00. **A solid cylinder of height 20 cm and diameter 10 cm is melt and recast into two cones whose volume, are in the ratio of 1 : 2 by keeping each of their height 20cm. The ratio of the volume of the original cylinder of that of the bigger cone is**

A $3 : 2$

B $\pi : 3$

C $2 : \pi$

D $3 : 5$

Answer: A

01. **A cone is cut along its slant height and unfolded to from a sector. If the slant height and radius of the cone are respectively l and r, then the area (in sq.units) of the sector is**

A πlr

B $\frac{1}{2}lr$

C $\pi l^2 r^2$

D $\frac{1}{2}\pi lr$

Answer: A

02. **If 12 cm and 14 cm are respectively the lengths of the adjacent sides of a parallelogram and length of one of its diagonal is 16 cm, then the length of the other diagonal (in cms) is**

A $\sqrt{680}$

B $\sqrt{424}$

C $\sqrt{106}$

D $\sqrt{268}$

Answer: B

03. **The perimeter of a rhombus is 146 cm. One of its diagonal is 55cm. The area of that rhombus is (in sq.cm)**

A 4015

B 2315

C 4516

D 1320

Answer: D

04. **Let $m \in \mathbb{Z}^+$ such that, m = 15(mod 24). For $0 \leq x < 6$, if $m = x$ (mod 6), then $x =$**

A 0

B 5

C 2

D 3

Answer: D

05. **The set of values of x, for which the expression $\sqrt{\frac{2}{x-|x|}}$ is real, is**

A then set $\mathbb{R}$

B the set of all non-negative real numbers

C the set of all non-positive real numbers

D the null set

Answer: D

06. **If the truth values of the propositions p, q and rare respectively F, T and F, then the truth value of $((\sim p \vee q) \wedge r)$ is equivalent to the truth value of (Here ' $\sim$' represent negation)**

A $(p \wedge (\sim q)) \vee (\sim r)$

B $p \wedge q \wedge r$

C $(p \wedge (\sim q) \wedge r)$

D $(\sim p \vee q \wedge (\sim r))$

Answer: C

07. **IF $p \rightarrow (\sim p \wedge q)$ is false, then the truth values of statements p and g are respectively**

A F,T

B T,F

C F,F

D T,T

Answer: B

08. **If A and B are sets, then which of the following are true?**

A. $A - (A - B) = (A \cup B) \cap (A \cap B)$
B. $(A \cap B) \cup (A \cap B) \cup (A \cap B) = A \cup B$
C. $A \cup B = A \cup B$

A only (A) and (B) are true

B only (B) and (C) are true

C Only (C) and (A) are true

D (A), (B) and (C) are false

Answer: A

09. **If A = { a, b, c, d}, then a transitive relation on A among the following is**

A $a : R_1 = \{(a,a),(a,b),(b,a)\}$

B $b : R_2 = \{(a,a),(b,b),(c,d),(d,d),(a,c)\}$

C $c : R_3 = \{(a,a),(b,b),(a,b),(b,c)\}$

D $d : R_3 = \{(a,a),(a,b),(a,c),(a,d)\}$

Answer: D

10. **If $f : \mathbb{R} \rightarrow B$, defined by $f(x) = x^2 - 5x + 6$ is onto, then B =**

A $(-\infty, -1)$

B $\left(-\infty, -\frac{1}{2}\right)$

C $\mathbb{R} - \left(-\infty, -\frac{1}{4}\right)$

D $[0, \infty)$

Answer: C

11. **If a straight line is passing through the points (8, -9) and (9,8), then tl1e intercept form of its equation is**

A $\frac{x}{\frac{17}{7}} + \frac{y}{-17} = 1$

B $\frac{x}{145} + \frac{y}{\frac{-145}{7}} = 1$

C $\frac{x}{\frac{145}{7}} + \frac{y}{-145} = 1$

D $\frac{x}{-17} + \frac{y}{\frac{17}{7}} = 1$

Answer: C

12. **The sum of the intercepts made by the straight line passing through the points (1,5) and (2, 7) on the coordinate axes is**

A 3/2

B 3

C -3/2

D 0

Answer: A

13. **If** $\sqrt{3}\sec 510^\circ - \tan 480^\circ + \cot 765^\circ = \sqrt{x} - y$**, then the quadratic equation with roots** $\sqrt{x} - y$ **and** $\sqrt{x} + y$

A $x^2 - \sqrt{3x} - 3 = 0$

B $x^2 + 2\sqrt{3x} + 2 = 0$

C $x^2 - 2\sqrt{3x} + 2 = 0$

D $2x^2 - \sqrt{3x} + 1 = 0$

Answer: C

14. $\frac{\sin 210^\circ . \cos 585^\circ}{\operatorname{cosec} 750^\circ}$

A $\frac{(2+\sqrt{2})}{4\sqrt{2}}$

B $\frac{1}{4\sqrt{2}}$

C $\frac{(2\sqrt{2})}{\sqrt{2}+2}$

D $\frac{(2-\sqrt{2})}{4\sqrt{2}}$

Answer: B

15. **If** $\sec\theta + \tan\theta = \frac{2}{3}$**, then** $\sin\theta =$

A $\frac{5}{13}$

B $\frac{7}{12}$

C $\frac{-5}{12}$

D $\frac{-5}{13}$

Answer: D

16. **From the top of a vertical cliff of 40m high, the angle of depression of an object that is at the base level of the cliff is** 30°**. If the object is at a distance** x **units from the base of the cliff, then** $\frac{1}{x+40}$

A $\frac{\sqrt{3}-1}{80}$

B $\frac{4\sqrt{3}}{40}$

C $\frac{1}{40\sqrt{3}}$

D $\frac{1}{40-\sqrt{3}}$

Answer: A

17. **Two polynomials** $f(x)$ **and** $g(x)$ **of degree 3 have** $2x^2 + 7x + 5$ **as a common factor. If 1 and 2 are respectively the zeros of** $f(x)$ **and** $g(x)$**, then the zeros of the polynomial** $(f(x) - g(x))$ **are**

A both negative

B both positive

C of opposite sign

D zero and five

Answer: A

18. **When the polynomial $5x^4 + 7x^2 + 2x + 5$, divided by $(x - 2)(x - 3)$ if be quotient is $ax^2 + bx + c$ then a + b + c =**

A 152

B 132

C 148

D 125

Answer: B

19. **Let x and y be two positive integers with $x > y$ and when x is divided by y, the remainder obtained is d. When y is divided by d leaves a remainder f and when dis divided by f leaves zero as remainder, then the greatest common divisor of x and y is**

A d

B y

C f

D d. f

Answer: C

20. **If the polynomial $f(x)$ when divided by $(x - 1)$ leaves a remainder 2 and when divided by $(x - 2)$ leaves a remainder 1, then the remainder when $f(x)$ is divided by $(x - 1)(x - 2)$ is**

A 2

B $3 + x$

C $3 - x$

D x

Answer: C

21. **For a fraction $\frac{x}{y}$ with $(x, y) = 1$, if the numerator is increased by 2 and the denominator is decreased by 3, then the fraction becomes 6. On the other hand, if the numerator is increased by 3 and the denominator is decreased by 2, then that fraction is equal to 5. Then $\frac{x-y}{3} =$**

A 2

B 3

C 4

D 5

Answer: D

22. **The number of common positive integral solutions of $3x + 5y \leq 15$ and $2x + 7y \leq 14$ is**

A 1

B 2

C 3

D 4

Answer: C

23. **If $\frac{3+5+\cdots n^{th} term}{3+6+12+\cdots n^{th} term} = \frac{16}{63}$, then n =**

A 10

B 8

C 6

D 5

Answer: C

24. **If l, m, n, rare in harmonic progression and $l > m > n > r$, then $\frac{l+r}{m+n}$ =**

A $\frac{r\ m}{l\ .\ n}$

B $\frac{l\ \ r}{n\ .\ m}$

C $\frac{l\ \ n}{r\ .\ m}$

D $\frac{l+n}{m+r}$

Answer: B

25. **If the coefficients of x^6 and x^5 in the binomial expansion of $(5+ax)^8$ are equal, then a=**

A 5

B 10

C 6

D 12

Answer: B

26. **Sum of the coefficients of x^r for $3<r<9$ in the expansion of $(x^2+4)^5$ is**

A 780

B 820

C 574

D 645

Answer: B

27. **IF** $A=\begin{bmatrix}1 & 3\\4 & 6\end{bmatrix}, C=\begin{bmatrix}2 & 1\\1 & 1\end{bmatrix}, B=\begin{bmatrix}b_1 & b_2\\b_3 & b_4\end{bmatrix}$ **and BC =A, then** $\mid b_1 \mid + \mid b_4 \mid$ **=**

A $\mid b_1 \mid + \mid b_2 \mid$

B $\mid b_2 \mid + \mid b_4 \mid$

C $\mid b_1 \mid . \mid b_4 \mid$

D $\mid b_2 \mid\mid b_3 \mid$

Answer: D

28. **IF** $A=\begin{bmatrix}3 & 4\\-1 & 4\end{bmatrix}$ **and B = adj(A) then** $\mid A(adj(A)) \mid$

A 256

B 64

C 128

D 512

Answer: A

29. $\lim_{x \to 1} \begin{matrix} (x^2+4x-5)(e^x-e) \\ (x^2-1)\tan(x-1) \end{matrix}$

A 3

B 3e

C 3/e

D 3+e

Answer: B

30. **If** $\frac{d}{dx}\left[\begin{matrix} (x^2+1)\sin x \\ (\log x)(\sec x) \end{matrix}\right] = f(x)\left[\begin{matrix} 2x \\ x^2+1 \end{matrix} + \cot x - \begin{matrix} 1 \\ x\log x \end{matrix} - \tan x\right]$**, then** $f(x) =$

A $\left[\begin{matrix} (x^2+1)\sin x \\ (\log x)(\sec x) \end{matrix}\right]$

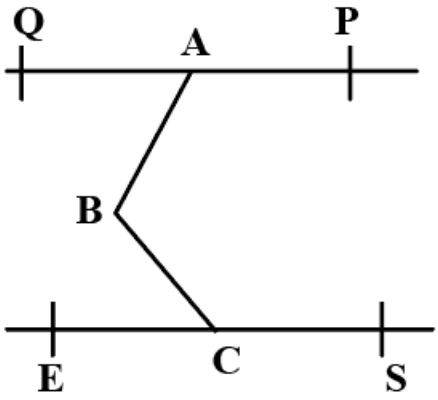
B $(x^2+1)\sin x - (\log x)\sec x$

C $(\log x)(\sec x) - (x^2+1)\sin x$

D $\begin{matrix} (x^2+1)\sin x - 2x\cos x \\ \log x \sec x - \sec x \tan x \end{matrix}$

Answer: A

31. **In the following figure, if** $PQ||^{el}RS, \angle PAB = 135^\circ$ **and** $\angle BCR = 40^\circ$**, then** $\angle ABC =$



A 70°

B 85°

C 90°

D 45°

Answer: B

32. **The area of a rhombus is 350 cm^2 and one of its diagonals has length 50 cm, then the length of the side of the rhombus (in cm) is**

A 26

B 24

C $\sqrt{674}$

D $\sqrt{714}$

Answer: C

33. **If two circle have radii 13cm, 7cm respectively and the distance between their centre, is 15 cm, then the number of common tangents that can be drawn to the two circles is**

A 0

B 1

C 2

D 4

Answer: C

34. **If G is the centroid of $\triangle^{le}$ ABC and A = (1,3), B = (3, 7) and G = (4,5) then the perimeter of the $\triangle$ ABC is**

A $2\sqrt{5}+\sqrt{29}+\sqrt{53}$

B $3\sqrt{5}+\sqrt{13}+\sqrt{53}$

C $\sqrt{5}+3\sqrt{5}+\sqrt{53}$

D $2\sqrt{5}+9\sqrt{5}+\sqrt{53}$

Answer: A

35. **If the medians of the triangle with vertices (3, - 5), (17,4),(- 9,12) are concurrent at (a,b), then $\frac{a}{b}=$**

A 1

B $\frac{3}{2}$

C 2

D $\frac{4}{3}$

Answer: A

36. **Let $x_1, x_2, ...x_n$ be distinct observations in decreasing order. If the first observation is increased by K and the last observation is decreased by K, then the measures of central tendency which do not alter are**

A All the mean, median, mode

B Both mean and mode

C Both median and mode

D Both mean and median

Answer: D

37. **The arithmetic mean and mode of a given discrete distribution are 24 and 12 respectively. If every data point is multiplied with 2 and then 5 is added to it, then the median of the new distribution is**

A 80

B 45

C 20

D 40

Answer: B

38. **Which one of the following is not true?**

A Mode is not affected by the change of origin and scale.

B Mean is affected by the change of orgin and scale

C Median is affected by the change of origin and scale.

D Standard deviation is not affected by the change of origin but it is affected by the change of scale.

Answer: A

39. **Let $x_1, x_2 ... x_n$ be a set of observations and $f_1, f_2 ... f_n$ be their frequencies. If $y_i = 3x_i + K$ then $\frac{\sum (y_i - y)^2 f_i}{\sum f_i}$**

A $\frac{3\sum f_i (x_i - x)^2}{\sum f_i}$

B $\frac{9\sum f_i (x_i - x)}{\sum f_i}$

C $\frac{9\sum f_i (x_i - x)^2}{\sum f_i}$

D $\frac{3\sum f_i (x_i)^2}{\sum f_i}$

Answer: C

40. **If a data consisting of 25 observations $\sum_{i=1}^{25}(x_i + 9)^2 = 175$ and $\sum_{i=1}^{25}(x_i + 9) = \frac{75}{2}$, then the standard deviation of data is**

A $\frac{9}{2}$

B $\frac{19}{4}$

C $\frac{\sqrt{19}}{2}$

D $\frac{3}{\sqrt{2}}$

Answer: C

41. **25 pairs of observations of (x_i, y_i) yield $\sum x_i = 125, \sum y_i = 100, \sum x_i^2 = 650, \sum y_i^2 = 436, \sum x_i y_i = 520$. If the transformation $u_i = x_i - 3, v_i = y_i - 3$ is done, then the correlation coefficient of (u_i, v_i) is**

A $\frac{2}{3}$

B $-\frac{2}{3}$

C $\frac{7}{8}$

D $\frac{6}{9}$

Answer: A

42. **A box coatains 10 red balls and some blue balls. If the probability of getting two blue balls is equal to the probability of getting two different coloured balls in an experiment of drawing two balls from the box randomly, then the number of blue balls in the box is**

A 10

B 20

C 21

D 11

Answer: C

43. **If the letters of the word MISTER are arranged at random, then the probability that the two vowels I and E are not together is**

A 2/3

B 3/4

C 1/4

D 1/3

Answer: A

44. **If two fair dice are rolled, then the probability that the sum on the two faces turned up does not exceed 8, is**

A 5/18

B 5/12

C 7/12

D 13/18

Answer: D

45. **The probability that a leap year contains 52 Sundays is**

A $\frac{5}{7}$

B $\frac{1}{7}$

C $\frac{6}{7}$

D $\frac{2}{7}$

Answer: A

Communication Ability

Instructions [146 - 151]

Choose the correct meaning of the word given:

46. **Colloquial**

A Obscene

B Formal

C Literary

D Conversational

Answer: D

47. **Chronic**

A Ceasing

B Temporary

C Never ending

D Seldom

Answer: C

48. **Veneration**

A Reverence

B Aversion

C Denunciation

D Flattery

Answer: A

49. **Exhort**

A Dissuade

B Urge

C Exalt

D Espouse

Answer: B

50. **Castigate**

A Catalyse

B Protect

C Reprimand

D Exonerate

Answer: C

51. **Homicide**

A Suicide

B Human birth

C Death

D Killing

Answer: D

Instructions [152 - 155]

Fill in the blank choose the correct word:

52. **Companies that _____ the rules will have to face legal consequences.**

A transgress

B misbehave

C offend

D err

Answer: A

53. **The reports revealed that action could not be initiated due to _____ of evidence.**

A paucity

B abundance

C sufficiency

D redundancy

Answer: A

54. **Thunder clouds loomed _____ in the sky.**

A ominously

B impulsively

C barbarously

D deviously

Answer: A

55. **Prem could not _____ his painful memories of the past**

A edit

B encase

C efface

D deface

Answer: C

Instructions [156 - 172]

Choose the correct answer:

56. **Which term refers to the sharpness and clarity of an image?**

A display

B resolution

C pixels

D dot-matrix

Answer: B

57. **A computer on a network that manages network resources**

A CPU

B micro computer

C data processor

D server

Answer: D

58. **A person who looks casually through websites or goods for sale**

A browser

B blogger

C web crawler

D web spider

Answer: A

59. **An internet protocol that transfers files between local and remote host computers**

A HTTP

B RTF

C FTP

D UDP

Answer: C

60. **In computers RTF stands for**

A Remote Text Fonnat

B Rich Transfer Fonnat

C Reading Text Fonnat

D Rich Text Fonnat

Answer: D

61. **URL is also known as**

A IP address

B Intemet Address

C Web address

D Mail ID

Answer: C

62. **Selling a produc at double its wholesale price or its cost is referred to as _____ pricing.**

A Keystone

B Premium

C Two - fold

D Keyrock

Answer: A

63. **Which term is not associated with "revenue"?**

A gross profit

B capital

C turnover

D gross income

Answer: B

64. **Something pledged as security for repayment of a loan**

A insurance

B bond

C collateral

D agreement

Answer: C

65. **In banking, RTGS stands for**

A Real Time Gross Settlement

B Ready Transfer Government Service

C Reserve Transfer Gross Settlement

D Real Transfer Gross Service

Answer: A

66. **I have been <u>out of the loop</u> since I left the job.**

The underlined phrase means

A away from the country

B depressed

C unaware of information

D looking out for a new job

Answer: C

67. **Most members <u>seldom</u> ask relevant questions.**

The underlined word means

A often

B nwver

C rarely

D occasionally

Answer: C

68. **A: My officer wants to fish in troubled waters.**
B: Don't worry. He will pay through the nose for this.
B means that

A the officer will be able to catch fish surely.

B the officer will be applauded for his efforts.

C the officer will face grave consequences.

D fishing is easier in troubled waters, rather in flowing waters.

Answer: C

69. **The divorce was painful but she has put all that _____ her now.**

A behind

B before

C about

D off

Answer: A

70. **We were faced _____ a terrible dilemma.**

A by

B up to

C upon

D with

Answer: D

71. **A: Come with us.**
B: By all means.
According to the conversation, B _____

A will join A only if all come with him.

B will join A and his group.

C won't join A and his group.

D will join A only if all mean the same.

Answer: B

72. **"Bring me my uniform"**
The passive voice of the above sentence is '

A Let my uniform be brought

B You are being requested to bring my uniform

C You are requested to bring my uniform .

D You would be requested to bring my uniform.

Answer: A

Instructions [173 - 180]

Fill in the blanks with the appropriate phrase/verb/preposition:

73. **I have been learning grammar since _____**

A three years

B many months

C went to school

D I was at school

Answer: D

74. **If Rahul repeats the same mistake, he _____ points.**

A would loose

B will lose

C will loose

D looses

Answer: B

75. **You could visit him _____ your convenience.**

A on

B at

C by

D with

Answer: B

76. **If she _____ her degree last year, she would have been eligible for this job now.**

A finished

B would finish

C had finished

D would have finished

Answer: C

77. **I don't have a thing with me _____ this bag.**

A than

B more than

C beside

D other than

Answer: D

78. **Indu has never been _____ for an excuse.**

A at loss

B an a loss

C on a loss

D on loss

Answer: B

79. **Someone _____ my car last night and stole the stereo.**

A broke into

B broke down

C broke in

D broke away

Answer: A

80. **I wish I _____ an Audi car.**

A have

B cam have

C will have

D had

Answer: D

Instructions [181 - 185]

Read the following passage and answer questions .

"The Calendar", argued Meghnad Saha, the distinguished scientist and the leader of calendar reform in India, "is an indispensable requisite of modern civilised life." He could have gone further than that, The need for a calendar has been strongly felt - and well understood -well before the modern age. The calendar, in one form or another, has been an indispensable requisite of civilised life for a very long time indeed. This explains why so many calendars are so very old, and also why most civilisations, historically, have given birth to one or more specific calendars of their own. The multiplicity of calendars within a country and within a culture (broadly defined) has tended to relate to the disparate preoccupations and concerns of different groups that co-exist in a country. The study of calendars and their history, usage and social associations can provide a fruitful understanding of important aspects of a country and its cultures. For example, since calendars often have religious roles, there is sometimes a clear connection between regional, religious and domestic calendars. Indeed, even the global calendars of the world are often classified as 'Christian', 'Muslim', 'Buddhist' , and so on. The connection between calendars and cultures, however, goes well beyond this elementary linkage. Since the construction of calendars requires the use of mathematics as well as astronomy, and since the functioning and utilisation of calendars involves cultural sophistication and urbanity, the history of calendrical progress can tell us a lot about the society in which these developments occur.

81. **The study of the history of calendars helps us in understanding the _____ they represent.**

A mathematical complexities

B mathematics and astronomy

C cultural and societies

D modern and societies

Answer: C

82. **Identify the statement that is NOT tme about calendars:**

A They have religious roles

B They are an indispensable prerequisite for modern civilised life.

C There are four types of calendars.

D They reveal various aspects of a society.

Answer: C

83. **Identify the problem the author has with Meghnad Saha's definition of a calendar.**

A complex language

B overgeneralization

C restricted time period

D self contradiction

Answer: C

84. **The word 'indispensable' means**

A redundant

B essential

C excessive

D absolute

Answer: B

85. **Identify the correct statement.**

A There is no connection between religions and calendars.

B Calendars are of recent origin.

C Buddhist calendar is the only one based on a religion.

D There is a multiplicity of calendars within a culture.

Answer: D

Instructions [186 - 190]

Read the following passage and answer questions.

The global recording industry has launched its largest wave of legal action against people suspected of sharing music files on the internet. The latest move by the International Federation of Phonographic Industry (IFPI) targeted 2.100 alleged up loaders using peer-to-peer (P2P) networks in 16 nations including the UK. France, Germany and Italy. Thousands of people have agreed to pay compensation since the campaign began. In the US, civil lawsuits have been brought against more than 15.597 people since September 2003 and there have been 3.590 settlements. 'This is a significant escalation of our enforcement actions against people who are uploading and distributing copyrighted music on P2P networks,' said IFPI chief John Kennedy. 'Thousands of people -mostly internet -savvy men in their 20s or 0s - have learnt to their cost the legal and financial risks involved in the file-sharing copyrighted music in large quantities.'Individual cases are generally brought by the national associations representing the recording industry and in some cases by the labels, as civil complaints. The UK record industry has so far

brought 97 cases, with a further 65 covered by the latest action. More than $140,000 in compensation has been paid to the British Phonographic Industry by 71 individuals.

86. **According to the passage, against whom is legal action initiated globally?**

A Global recording companies

B Those who share unauthorized copies of music files

C Musicians who fail to acknowledge their source of information.

D National associations representing the music industty.

Answer: B

87. **Identify the correct statement.**

A Criminal proceedings have been initiated against internet users.

B Civil law suits have been filed against people who downloaded music

C Action is taken against those who share copyrighted music on P2P networks

D 71 individuals were found guilty of distributing copyrighted music

Answer: C

88. **Which of the following is NOT mentioned as a risk involved in file-sharing copyrighted music in large quantities?**

A Payment of compensation

B Facing court proceedings

C Financial loss

D Being barred from the music industry

Answer: D

89. **The word 'Phonographic' is related to the _____ of music**

A downloading

B recording

C composing

D appreciation

Answer: B

90. **The word 'escalation' means**

A circulation

B enforcement

C rapid rise

D rapid fall

Answer: C

Instructions [191 - 195]

Read the following passage and answer questions.

The environmental movement has made America today a more ecologically friendly place than thirty years ago (Goldstein 2002). Legislation, research and new technologies have worked in unison to reduce pollution, increase recyclability and protect endangered animals, among many other achievements. According to a March 2003 Gallup poll, 89% of Americans recycle and 72% buy environmentally-friendly products. But at the same time, consumption is rapidly increasing, people are driving further distances with gas-guzzling SUVs, and farm land and forests are converted to developments at alarming rates. More conservation work is required according to advocacy groups, such as the National Resource Defence Counsel, World Wildlife Fund and Green Peace.

From a self-preservation perspective, environmentalism has focused on the importance of a clean and healthy environment for human existence. Beyond our physical dependency on the environment are the intangible and emotional connection people feel with nature and these connections contribute to overall happiness in life. People enjoy the beauty of snow-covered mountains, playing sports in an open field, observing wild animals roaming in their natural habitats, camping, gardening, bicycling and scuba diving. Environmentalism seeks to protect and preserve the earth for present and future generations; the intangible and emotional connections with nature are at risk. Environmentalism caused Americans to rethink their lifestyles and what can be expected from the government

91. **The opening statement of the passage is**

A the author's opinion

B an unfounded fact

C a fact stated by Goldstein

D a fact based on Gallup Poll

Answer: C

92. **The factor that does not contribute to overall happiness.**

A emotional connections people feel with nature

B unobservable connections with nature

C Risky connections with nature.

D physical connections with nature

Answer: C

93. **The passage is about environmentalism _____**

A in general

B with reference to America

C and exploitation

D related to the development of world

Answer: B

94. **Environmentalism is concerned with**

A the intangible connections people feel with nature

B the happiness people derive from activities like bicycling, gardening and diving

C the protection and preservation of the earth for future generation

D research and technologies that promote development.

Answer: C

95. **Identify the statement that is NOT the about environmentalism**

A It made people rethink their life styles

B It made America a more environment friendly nation.

C It strives for a clean and healthy enviromnent for humans

D It is concerned with the aesthetics of nature.

Answer: D