Answers and Explanations

1	a	**21**	c	**41**	b	**61**	b	**81**	a	**101**	d	**121**	c	**141**	c	**161**	c
2	a	**22**	c	**42**	d	**62**	c	**82**	a	**102**	d	**122**	b	**142**	c	**162**	d
3	b	**23**	c	**43**	d	**63**	a	**83**	c	**103**	a	**123**	b	**143**	c	**163**	a
4	b	**24**	c	**44**	a	**64**	c	**84**	b	**104**	d	**124**	a	**144**	d	**164**	b
5	b	**25**	b	**45**	b	**65**	b	**85**	a	**105**	c	**125**	c	**145**	c	**165**	a
6	a	**26**	b	**46**	d	**66**	c	**86**	a	**106**	c	**126**	d	**146**	c	**166**	d
7	d	**27**	c	**47**	d	**67**	a	**87**	c	**107**	a	**127**	a	**147**	d	**167**	a
8	b	**28**	a	**48**	d	**68**	b	**88**	b	**108**	a	**128**	b	**148**	d	**168**	a
9	c	**29**	d	**49**	a	**69**	a	**89**	b	**109**	d	**129**	d	**149**	b	**169**	d
10	d	**30**	d	**50**	c	**70**	c	**90**	d	**110**	c	**130**	c	**150**	b	**170**	b
11	a	**31**	d	**51**	c	**71**	b	**91**	b	**111**	c	**131**	a	**151**	b	**171**	a
12	c	**32**	a	**52**	b	**72**	c	**92**	b	**112**	b	**132**	c	**152**	b	**172**	d
13	c	**33**	c	**53**	a	**73**	d	**93**	a	**113**	d	**133**	b	**153**	d	**173**	c
14	c	**34**	d	**54**	a	**74**	d	**94**	c	**114**	b	**134**	b	**154**	b	**174**	a
15	d	**35**	b	**55**	b	**75**	d	**95**	d	**115**	d	**135**	d	**155**	c	**175**	a
16	b	**36**	c	**56**	a	**76**	b	**96**	c	**116**	d	**136**	c	**156**	b	**176**	d
17	c	**37**	a	**57**	c	**77**	a	**97**	d	**117**	d	**137**	b	**157**	d	**177**	d
18	d	**38**	c	**58**	d	**78**	b	**98**	a	**118**	b	**138**	c	**158**	d	**178**	b
19	c	**39**	c	**59**	d	**79**	d	**99**	a	**119**	a	**139**	b	**159**	a	**179**	d
20	a	**40**	a	**60**	c	**80**	b	**100**	c	**120**	a	**140**	a	**160**	a	**180**	b

1. a The subject here is 'the best part', which is singular and should therefore be followed by a singular verb.

2. a When using 'as well as' to introduce a complex subject, the phrase should be set off by commas, and the verb agrees with the main subject, which in this case is 'the professor'.

3. b As the first part of the sentence provides the reason for his being unwilling to testify, 'because' should be used to introduce it. Moreover a comma should always be used to separate two distinct phrases in a sentence.

4. b The pronoun should remain consistent throughout the sentence.

5. b When 'either' and 'neither' are followed by 'or' and 'nor' respectively, the verb depends on the noun following 'or' and 'nor'.

6. a The sentence has three different clauses, which should be separated by semi colons.

7. d When 'neither' is followed by 'nor', the verb depends on the noun following 'nor'. In this case it is singular, hence the verb should also be singular.

8. b Before a gerund a noun should appear in the possessive form.

9. c The sentence does not need any commas.

10. d The sentence needs no commas.

11. a We should use 'who' for subjects who do the action. In the given sentence 'who' is the subject of the verb 'were'.

12. c The correct usage would be, 'a network to facilitate contacts'.

13. c The correct phrase would be, 'to the perceived problems'.

14. c 'The Indian Government's choice' is a singular noun and should have a singular verb 'stems'.

15. d The correct quantifier to be used here is 'most'.

16. b Here we should use the verb in past participle, i.e. 'you would have' as we are talking about an unreal past condition.

17. c 'Requires' should be replaced with 'assumes'.

18. d The noun 'choice' is singular and should be followed by a singular verb 'invites'.

19. c We already have a subject 'who' for the verb 'decided', so 'he then' is wrongly used here.

20. a 'Of' should be replaced with 'off'.

21. c Here minorities are being treated as a specific group and should therefore be preceded by 'the'.

22. c 'Aspiring' cannot be used as an adjective for students here, as those who are studying management are already students.

23. c D. introduces the 'institutional truth of the financial world', B. elaborates the idea, A continues with B. and C. presents the conclusion.

24. c B. introduces the subject of the passage, C. elaborates on the idea, and use of 'then' in A. shows that it should follow D.

25. b A. introduces the age of pragmatism as the topic of the passage, C. explains what has changed in the new age, B. explains the characteristic of the old world and D. comments on the position today.

26. b D. shows that the passage is about cognitive age, B. explains what it implies, A. talks about a research related to the subject and C. explains the implications of the research.

27. c The sentence C. introduces 'her eyes', and should be the first sentence. A. elaborates on the eyes, so A should follow C. No other option has CA as the mandatory pair. So, answer is (c).

28. a B. shows that the topic is 'intelligence', D. uses 'these' to refer to the different abilities associated with intelligence, as presented in B. A. explains what intelligence actually is and C. talks about the true test of intelligence.

29. d The passage is about difference in pronunciation of words in different situations. A. explains what the difference is. Use of 'further' and 'yet' in D. and B. respectively show the order in which they should occur.

30. d Broad and powerful thinking is needed to solve the problems.

31. d The funds are being 'raised' for the purpose of having money to spend on the search of alternative sources of energy.

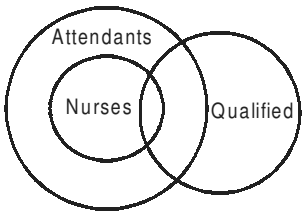
32. a If you look before you leap you will be forewarned and thus can be forearmed.

33. c As the king, the fate of the economy and the subjects would be in the ruler's hands.

34. d We should be prepared to 'break' something to 'reconstruct' it.

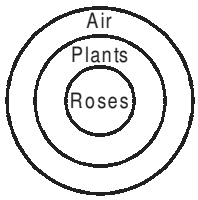
35. b If the future is upon us before we realize it, it will shape us rather than the other way round.

36. c



37. a If Mary and John are wife and husband and the last waltz was danced by husbands and wives, it follows that John danced last with Mary.

38. c



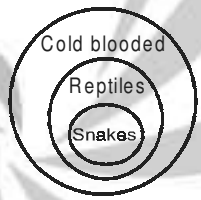
39. c Laxman is a man and no man is an island, so Laxman cannot be an island.

40. a If college students are intelligent and Ram is a college student, it follows that Ram is intelligent.

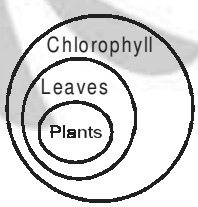
41. b If all cigarettes are hazardous to health and cham-cham is a brand of cigarette, then cham-cham would also be hazardous to health.

42. d If all good bridge players play good chess, then Goran being a good bridge player should also play good chess.

43. d

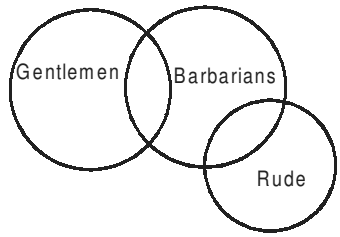


44. a



45. b If bald people are intelligent and Raman is bald, it follows that Raman is intelligent.

46. d



47. d Desks are made of metals. So if an object is a desk it should be made of metal.

48. d Mathew and Paul are siblings and siblings are known to quarrel often. Therefore it follows that Mathew and Paul quarrel often.

49. a Art is a symptom of culture and music is a form of art, therefore music also shows culture.

50. c If primary colours give different hues, and red is a primary colour, it implies that red also gives different hues.

51. c The statement I only gives the comparison of the selling prices. You must realise that this information is not enough to answer the question as the profit also depends on cost. So we also need to analyze the statement II. And since there is no other constraint on production, we can solely compare the profitability of two products on the basis of labour. According to it, if 10 units of labour is available, it can produce 5 units of Q and 2 units of R. So, from 10 units of labour, I can earn (5 x 1) = 5 units of sales revenue from Q and (2 x 4) = 8 units of sales revenue from R. So by taking both statements together we can determine which would be more profitable.

52. b In order to solve the question, we need to know two things : (a) the original speed of the train or the new speed of the train and (b) at what distance from A or after how much time after leaving A the train brokedown. The statement II provides both of these data viz. original speed = 20 kmph and distance from A = 40 kms. and hence only this is required to answer the question.
E.g. If the distance between A & B is considered to be x, then time taken had it not broken down is x/20 hours. The new time taken is [2 + (x – 40)/5] hours and we know that this time would have been 40 min. more than the original time. The equation becomes : x/20 + 40/60 = [2 + (x – 40)/5], which can be easily solved to get value of x.

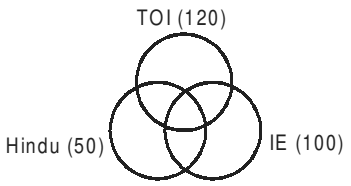
53. a From statement I, $x^2 + x > 50$ and $x^2 + x < 100$

$\Rightarrow x(x+1) > 50$

Only prime number 7 satisfies the above equation.
So the question can be answered from statement I alone.

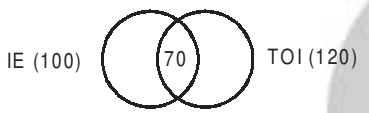
54. a Sum of all the three quotations = 110 × 3 = Rs. 330
From statement I, if the lowest quotation is Rs. 110 then the sum of other two quotations = 330 – 100 = Rs. 230.
Now, minimum value of second quotation = Rs. 101
Therefore, maximum value of third quotation = 230 – 101 = Rs. 229.

55. b From the statement I, we have the following Venn diagram :



Using this we cannot find the answer.

From the statement II however we can find the answer, as we get the following Venn diagram.



56. a Let present age of X and Y be x and y respectively.
We have, $x = 3(y-3)$ ... (i)
From statement I, $x = y + 17$ ... (ii)
From statement II, $x + 9 = 3y$ ... (iii)
From (i) and (ii) x = 37.5 years and y = 12.5 years
But, equations (i) and (iii) are same so we cannot find values of x and y.

57. c Let length of the smaller square be x.
From statement I, Length of ABCDEQ = $10x \geq 60$
$\Rightarrow x \geq 6$
From statement II, Area of rectangle OPQR =
$42x^2 \leq 1512 \Rightarrow x^2 \leq 36$
$\therefore x \leq 6$
By combining results from statement I and II we have, x = 6
Now, area under the line GHI-JKL can be found out using x.

58. d Let the radius of the circle be r.
From statement I, $\frac{\pi r^2}{2\pi r} > 7$
$\Rightarrow r > 14$ ...(i)
From statement II, $2r \leq 32$
$\Rightarrow r \leq 16$ ...(ii)
Combining (i) and (ii), $14 < r \leq 16$
Hence, the value of r is not unique.

59. d **From both statements I and II:**
Arrival time of flight by New York local time will be 2 P.M.
Since we don't know whether the flight landed on same date or other we can not find the answer.

60. c From statement I alone no conclusion can be drawn.
From statement II following sequence of stations is possible

A	C/D	E	C/D	B

But, From 1 Mr. Rahman boards the station at D which is possible at fourth position only because Mr. Thomas and Mr. Rahman have no common station.

61. b For each of the given expressions, you may have to simplify and express x in terms of y and hence verify for which one does the form and structure remain the same. In general, any function of the form
$y = \frac{(ax+b)}{(bx-a)}$ reflects on to itself as we arrange it can be found that $x = \frac{(ay+b)}{(by-a)}$.
Hence, the answer is (b).

62. c For no solution, lines must be parallel and not over lapping.
$\therefore \frac{2}{k} = \frac{-8}{4} \neq \frac{3}{10}$
$\Rightarrow k = -1$.

63. a Three digit number such that 7 follows 5 could be of the form 57_ or _57
Since, the number is an even number
Therefore possible numbers are 570,572,574,576 or 578.
Hence, 5 such numbers are possible.

64. c Let x be the number of tailors initial appointed.
Let n be the number of shirts that had to be stitched by each tailor initially.
Let y be the number of tailors who did not come.
$x \times n = 480$.
$(x - y)(n + 32) = 480$
Only option (c) satisfies the equation.

65. b Let Mushtaq has M cards while Iqbal has I cards with him.
Let number of cards exchanged be x.
Case 1: $I + x = 4(M - x)$ ... (i)
Case 2: $I - x = 3(M + x)$ ... (ii)
From (i) and (ii),
I = 31x.
Only possible value for I could be 31.

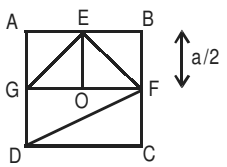
66. c We know that $x + y + z = T$ and $x + 2y + 3z = R_T$, where
x = number of members belonging to exactly 1 set
y = number of members belonging to exactly 2 sets = 9
z = number of members belonging to exactly 3 sets = 1
T = Total number of members
R_T = Repeated total of all the members = (22 + 15 + 14) = 51
$R_T = T + y + 2z$
Thus we have two equations and two unknowns. Solving this we get T = 40.
In other words, the number of teachers owing at least 1 out of the three items = 40. Hence the number of teachers owing none = 50 – 40 = 10.

67. a Let the 3 odd numbers be (x – 2), x and (x + 2). It is given that $3(x - 2) = 3 + 2(x + 2)$
$\Rightarrow x = 13$. Hence, the third integer is (x + 2) = 15.

68. b Total number of ways to reach A to B = 4 × 2 × 2 × 1 = 16.

69. a Let side of square be a.
Area quadrilateral EFDG = Area ΔDGF + Area ΔGEF

$$= \frac{1}{2} \times \frac{a}{2} \times a + \frac{1}{2} \times a \times \frac{a}{2} = \frac{1}{2}a^2$$



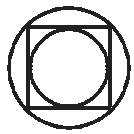
$$\therefore Ar(EFDG) : Ar(S) = \frac{1}{2}$$

70. c $2^{73} - 2^{72} - 2^{71} = 2^{71}(2^2 - 2 - 1) = 2^{71}(4 - 2 - 1) = 2^{71}$.

71. b The two equations can be simplified into $n \leq 2$ and $n \geq 2$. The only value that satisfies both these conditions is n = 2.

72. c Since the sum of reciprocals is $\frac{5}{12}$, the two numbers must have their LCM as 12 and their sum as given will be 10.
Possible numbers are 4 and 6 only.

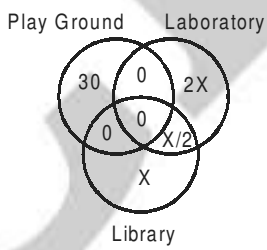
73. d As it is apparent from the following diagram, the diameter of the inscribed circle is equal to the side of the square, while the diameter of the circumscribed square is equal to the diagonal of the square. Since the ratio of any two circles is equal to the ratio of the squares of their diameters, in this case the required ratio is equal to $(side)^2 : (diagonal)^2$.



Now, the ratio of the side to the diagonal of a square $= 1 : \sqrt{2}$, the ratio of their squares will be 1 : 2.

74. d $y = f(x) = \frac{1-x}{1+x}$
$\Rightarrow y(1 + x) = 1 - x$
$\Rightarrow y + xy = 1 - x$
$\Rightarrow x + xy = 1 - y$
$\Rightarrow x(1 + y) = 1 - y$
$\Rightarrow x = \frac{1-y}{1+y} = f(y)$

For questions 75 and 76:



It is given that $x + 2x + x/2 = 35$.
Hence x =10.

75. d Total number of schools that had at least one of the three = 30 + 10 + 20 + 5 = 65. Hence the number of schools having none of them = 100 – 65 = 35.

76. b Number of schools having library = 15. And number of schools having laboratory = 25.
Hence the ratio = 25 : 15 = 5 : 3.

77. a Since in the long run the probability of each number appearing is the same, we can say in 'n' throws one can get 1, 2, 3, 4, 5 and 6, $\frac{n}{6}$ times each. Hence he would earn $\frac{(1+2+3+4+5+6)n}{6} = Rs.\frac{7n}{2}$.
In order to make a profit of 1 Re. per throw he has to totally earn a profit of Rs.n. Hence his cost for the n throws should be $\frac{7n}{2} - n$. So his cost per throw should be $\left(\frac{7}{2} - 1\right) = \frac{5}{2} = Rs.2.50$.

78. b B being twice as fast as A, will take half of time of A to produce a million units i.e. = 30 hrs.
Since Machine C takes the same amount of time as A & B running together,

$$\therefore \frac{1}{C} = \frac{1}{A} + \frac{1}{B} \text{ or } \frac{1}{A} + \frac{1}{B} + \frac{1}{C} = \frac{2}{A} + \frac{2}{B}.$$

$$\Rightarrow \frac{2}{60} + \frac{2}{30} = \frac{1}{10}.$$

Hence, it will take 10 hours.

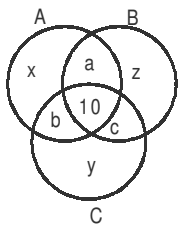
79. d Since x + 2 and 3 – x are increasing and decreasing functions respectively, for Y to be maximum,

$x + 2 = 3 - x$

$\Rightarrow x = 0.5$

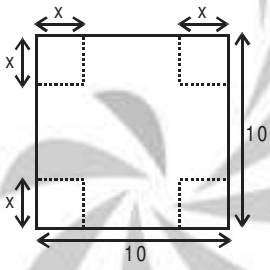
$Y_{max} = \min(2 + 0.5, 3 - 0.5) = 2.5.$

80. b



$x + a + b = 40 - 10 = 30$ ... (i)
$y + b + c = 50 - 10 = 40$ ... (ii)
$z + a + c = 60 - 10 = 50$ ... (iii)
From (i), (ii) and (iii)
$a + b + c = 25$.

81. a Let the side of the squares removed be x inches.



$\therefore$ The volume = $(10 - 2x) \times (10 - 2x) \times x = (10 - 2x)^2 \times x$

Now, $1 \le x < 5$. (since volume cannot be negative or 0)
The volume realises its maximum value at x = 2 and its value will be $(10 - 2 \times 2)^2 \times 2 = 72$ sq.inch.

82. a Going by the options:

(a) $(x - 1)yz = xyz - yz$

(b) $x(y - 1)z = xyz - xz$

(c) $xy(z - 1) = xyz - xy$

(d) $x(y + 1)z = xyz + xz$

Here, yz will be minimum out of yz, xz, xy, xz as x > y > z
Hence, the correct answer is option (a).

83. c Number of powers of 5 in 80!

$$= \left(\frac{80}{5} = 16\right) + \left(\frac{80}{5^2} \Rightarrow 3\right) = 19.$$

84. b The last digits obtained by multiplying the units place digits should be the same as that obtained by multiplying the tens place digits.
Hence, option (b) is the correct answer.

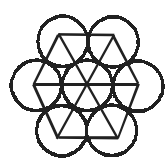
85. a As 55 does not have factor common with 124, for 55n to be exactly divisible by 124, n should be a multiple of 124. Hence, the minimum value that n can have is 124 itself.

86. a a = k + 4 is divisible by 7
b = k + 2n is divisible by 7
$\Rightarrow$ b – a = 2n – 4 is divisible by 7
$\Rightarrow$ 2n – 4 = 0 or 7 or 14 ...
For minimum integral value of n,
2n – 4 = 14
$\Rightarrow$ n = 9.

87. c

	A	B	Step I (B + 1)	Step II (A x B)	Step III A	Step III B
Beginning	1	1				
1st Time	1	1	B =2	(1 × 2) = 2	2	2
2nd Time	2	2	B = 3	(2 × 3) = 6	6	3
3rd Time	6	3	B = 4	(6 × 4) = 24	24	4
4th Time	24	4	B = 5	(24 × 5) = 120	120	5
5th Time	120	5	B = 6	(120 × 6) = 720	**720**	6

88. b It can be seen that if we place 3 coins touching each other, their centers form an equilateral triangle. Hence, the angle made by the centers of the coins around the central coin is 60°. Since the total angle to be covered is 360°, there has to be 6 coins surrounding the central coin.



89. b Let the amount with Gopal be Rs. 400. Therefore, price of an orange is then Rs. 8 and that of a mango is Rs.10. If he keeps 10% of the money for taxi fare, he is left with Rs.360. Now if he buys 20 mangoes, then he spends on mangoes Rs. 200. Now he is left with Rs.160, in which he can buy 20 oranges.

90. d Since her husband meets her mid way, the total time saved by him can be equally divided into time saved while going to station and that saved while returning home. In other words, he saved 5 min. while going and 5 min. while coming. So instead of usual time of 6.00 pm he must have met her at 5.55 pm. So she must have walked for 55 min.

91. b Let x be the total number of sticks assigned to each boy and y be the number of boxes in which he has to fill them. If he reduces number of sticks per box by 25, he would fill $\left(\frac{x}{y} - 25\right)$ in each box and hence he would now fill (y + 3) boxes.

$\therefore x = \left(\frac{x}{y} - 25\right)(y+3) = x + \frac{3x}{y} - 25y - 75.$

$\Rightarrow 3x = (25y + 75)y$

$\Rightarrow x = \frac{(25y^2 + 75y)}{3} = \frac{25y(y+3)}{3}$

For x to have an integer value, y(y + 3) has to be a multiple of 3. This is possible only when y is a multiple of 3. Subsequently, (y + 3) will be a multiple of 3. Therefore, $\frac{25y(y+3)}{3} = x$ will be a multiple of 3. Hence, the correct choice is (b).

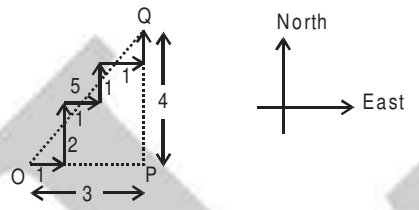
92. b For a difference of 1 year, CI can be computed as SI. Hence, from the 2nd year to the 3rd year interest earned = (675 – 650) = Rs.50 on Rs.625.

Hence, the Rate of interest $= \frac{50}{625} \times 100 = 8\%$ p.a.

93. a You find that the total number of links in the network is 13. (Note : In the diagram given below, the top two nodes are connected to all the other nodes, while the remaining four are connected to only four other nodes).

94. c If (2x + 12) is perfectly divisible by x, then (2x + 12)/x has to be an integer as x is an integer. Now if we divide, the expression simplifies to (2 + 12/x). The only way in which this expression would be an integer is when 12/x is an integer or if 12 is perfectly divisible by x. This is possible if x takes either of these values : 1, 2, 3, 4, 6, 12. Hence, the answer is 6 values.

95. d Following diagram shows the movement of the man.



$\therefore OQ = \sqrt{3^2 + 4^2} = 5$ km.

96. c The ratios of the share of students, teachers and benefactor is 1 : 1.5 : 4.5. So, the proportion of teachers share is $\frac{1.5}{7}$. So teachers would donate:

$\frac{(1.5 \times 4200)}{7} = $ Rs.900.

97. d As each prime number greater than or equal to 3 is of the form $6k \pm 1$, where k is a natural number, $p = 6k \pm 1$.

$p^2 - 1 = (6k \pm 1)^2 - 1 = 12k(3k \pm 1)$

Above number is always divisible by 24 irrespective of value of k.

98. a $203 = 2.3^2 + 0.3^1 + 3.3^0 = 18 + 0 + 1 = 21$
$21 = 2.3^1 + 1.3^0 = 6 + 1 = 7.$
Therefore, we can reduce 203 to 7 in 2 steps.

99. a Here logic is:
A + B = (A + B) – 18
Hence, 10 + 18 = {(10 + 18) – 18} = 10.

100. c The distance between two points (x_1, y_1) and (x_2, y_2) is given as $\sqrt{(x_2 - x_1)^2 + (y_2 - y_1)^2}$

Hence, required distance = $\sqrt{(-2-3)^2 + (-7-8)^2}$

$= 5\sqrt{10}$.

101. d A traditional kinship group provides security, identity as well as an entire scheme of things.

102. d Both the examples have been cited in the passage to show the extent of disintegration of kinship.

103. a The passage states that farming led to kinship becoming more important.

104. d The rise in individual self consciousness has led to the loss of sanity, supportiveness as well as warmth.

105. c The passage deals with the changes in kinship patterns over time and their effect on the individuals.

106. c The author says that serial monogamy is a series of marriages and divorces.

107. a According to the passage, smaller families are less influential.

108. a 'Genealogy refers to family history.

109. d The most distressing trend is the decline in the ability to form long term intimate bonding.

110. c The passage states that the political and economic benefits of the rise of the individuals have been positive.

111. c 'The marauder within' refers to the criminal class.

112. b The intellectual patrons of Australia in its first colonial years were Hobbes and Sade.

113. d The English did not regard Australia as a new frontier. It was settled to defend the English property from the criminal class.

114. b The late 18th century abounded in schemes of social goodness.

115. d 'Sanguine' means confident or hopeful.

116. d The passage primarily deals with the settlement of Australia as a penal colony to defend the English property from the criminal class.

117. d The existence of the criminal class was one of the prime sociological beliefs of late Georgian and early Victorian England.

118. b "Penology' is the study of punishment in relation to crime.

119. a For seventeen years no observation was made on the island.

120. a Sydney Harbor is the new name for Port Jackson.

121. c The author says that man's emotions are the product of his rational faculty; his emotions cannot be understood without reference to the conceptual power of his consciousness.

122. b The biological basis of choosing efficacy has been said to be the relationship of efficacy to survival.

123. b Nature has left man free in choosing values.

124. a The passage clearly states that man chooses his own values, irrespective of their actual effect on his life.

125. c The passage states that man first acquires preferences through pleasure and pain as well as through efficacy and inefficacy.

126. d Reason serves the dual function of cognition as well as of evaluation.

127. a As a child a human being experiences issues relating to values through physical sensations of pleasure and pain.

128. b Since man must act to live, he is actually forced to select values.

129. d The passage clearly states that man experiences efficacy as well as pleasure as primary, hence the question is not debatable.

130. c As a being of volitional consciousness, man is not biologically programmed to make right value choices automatically.

131. a A heightened roller coaster effect, and not an opportunity for a roller coaster ride, is a characteristic of the stage of small victories.

132. c Entering a new culture involves an appreciative process, to help members of different cultures value the differences.

133. b Opening a bank account is an example of a small victory as it is preceded by anxiety and information collection.

134. b Entering a new culture is a learning process that results in valuing and affirming the best in a culture, while at the same time seeing it as a whole.

135. d The passage states that appreciative inquiry must precede cultural changes in an organization.

136. c The passage emphasizes that affirmation of a new culture involves viewing the whole, including the points that are less desirable.

137. b The author does not approve of legal limits on interest charged on money lent to people. The last paragraph shows his support for the free market operations.

138. c The author states that though the law precludes the man from borrowing, upon terms, which it deems too disadvantageous, it does not preclude him from selling, upon any terms, howsoever disadvantageous.

139. b The author states that he knows of no economist of any standing who has favoured a legal limit on the rate of interest on borrowed money.

140. a 'Usury' is defined as charging rates on money that are in excess of the legal limits.

141. c Bentham was primarily concerned with loans to individuals or business enterprises.

142. c The author laments that 'it is an oppression for a man to claim his money, but not to keep it from him.' Thus he implies that a man becomes an oppressor only because the borrower does not return the money.

143. c The passage states that no man of sound mind and with his eyes open should be hindered from obtaining money.

144. d The author emphasizes the importance of free market operations throughout the passage, and draws attention to the validity of the "mischief of the anti-usurious laws." He also condemns politicians and so (d) is the most fitting description for the author.

145. c The author states that the working class that may be the lender for the first time in history, will be the hardest hit by the legal regulations.

146. c The bickering illustrated that Eagle constituted a collective effort, and now they were having a hard time deciding on the contribution of each individual.

147. d The author seems to suggest that with the launch of the machine everything that preceded it becomes past. Even the team started losing its glue and instead bickering started.

148. d The word 'after birth' was used for 'the team that was losing its glue', that is the Eclipse Group.

149. b During the conversation West said that none of it had come out the way he had expected and that he was glad it was all over.

150. b The telegram was described as a 'classy gesture' by all.

151. b One of the 'Microkids' exclaimed that he had a 'great talk with West', showing that it as an honour for him.

152. b The machine had crashed during the programme but no one except the company engineers noticed and the problem was fast corrected. The event was written up at length in both the Wall Street Journal and the New York Times, the next day.

153. d Some of the engineers seemed to the author to be out of place, being untutored in that sort of a performance.

154. b It refers to the fact that in front of the Press even those who had not been around when Eagle was conceived were described as having had the responsibility for it.

155. c The author states that ego and money motivates people and clearly the machine no longer belonged to the makers.

156. b Per Capita Income = $\frac{\text{(National Income)}}{\text{(Population)}}$

Year	Per Capita Income	increase over previous year
1984-85	3097.62	-
1985-86	3482.32	384.70
1986-87	3786.44	304.12
1987-88	4202.98	416.54
1988-89	4856.73	653.75
1989-90	5319.01	462.28

As it can be clearly seen, the increase is lowest for the year 1986 – 87 = Rs. 304 .12

157. d By referring to the above table,
Per Capita Income is highest for the year 1989 – 90 $\approx$ 5319.

158. d

Year	Population (in crore)	%increase over the previous year	Per Capita Income	% increase over the previous year	Difference in %
1984-85	74	-	3097.63	-	-
1985-86	75	1.35%	3482.32	12.43%	11.08
1986-87	77	2.66%	3786.44	8.73%	6.07
1987-88	78.5	1.94%	4202.98	11.01%	9.07
1988-89	80	1.91%	4856.73	15.56%	13.65
1989-90	81.5	1.87%	5319.01	9.51%	7.64

Hence it is highest for the year 1988-89 viz.13.65

159. a From the table given for Q158, it is apparent that the rate of increase of population is lowest for the year 1985-86 viz.1.35%.

160. a Among the years given in the answer choices, the increase in per capita income compared to previous year is highest for the year 1985 - 86.

161. c Let us assume that Ghosh Babu had deposited Rs.100 initially.

Year	Opening Balance	Interest Earned	Withdrawn by Ghosh Babu	Closing Balance
1986	100	10	10 + 20 = 30	80
1987	80	8	8 + 40 = 48	40
1988	40	4	4 + 20 = 24	20
1989	20	2	22	0

Hence, had he deposited Rs.100 initially, he should have withdrawn Rs.22 at the end to close the account. Since he withdrew Rs.11000, at the end, he should have initially deposited Rs.50000.

162. d He withdrew the smallest amount after the 4th year.

163. a He collected the maximum interest after the 1st year.

164. b Ghosh Babu withdrew the maximum amount after the 2nd year.

165. a As seen from the above table, the total interest collected by Ghosh Babu is Rs.24 on Rs.100. Hence on Rs.50000, it would be Rs.12000.

For questions 166 to 170:

The values of the graph can be tabulated as given below:

	A	% Change	B	% Change	C	% Change	D	% Change
Jan	100	–	70	–	60	–	40	–
Feb	95	–5%	72	2.85%	55	-8.33%	50	25%
Mar	115	21%	74	2.77%	60	9.09%	50	–
Apr	105	–8.7%	76	2.70%	69	15%	41	–18%
May	100	–4.7%	78	2.63%	60	–13%	44	7.31%
Jun	110	10%	80	2.56%	55	–8.33%	45	2.27%

166. d As it is seen the highest % increase is for D in Feb. viz.25%.

167. a The greatest absolute change in the market value for any share recorded is 20 i.e. for share "A" for month of March = 115 – 95 = 20.

168. a The greatest percentage change in any share was recorded for share D for the month of February viz. 25%.

169. d

	C	D	Total Earning	A	Gain/ Loss
Jan	60	40	100	100	–
Feb	55	50	105	95	+10
Mar	60	50	110	115	–5
Apr	69	41	110	105	+5
May	60	44	104	100	+4
Jun	55	45	100	110	–10

Hence, the maximum loss due to share value changes is 10 for the month of Jun. Hence the answer is (d).

170. b Again referring to the above table it can be seen that the individual's highest gain is Rs.10.

For questions 171 to 175:

Let the number of defective tests be 'x'

Cost to Prakash if he does not use any test = 50x

Cost to Prakash if he uses test 1

$$= 2 \times 1000 + \frac{4x}{5} \times 25 + \frac{x}{5} \times 50 = 2000 + 30x$$

Cost to Prakash if he uses test 2 = 3000 + 25x

Prakash should not test when

$50x \leq 2000 + 30x$

$20x \leq 2000$

$x \leq 100$

Prakash should use test 1 when

$50x > 3000 + 25x \geq 2000 + 30x$

$3000 + 25x \geq 2000 + 30x$

$5x \leq 1000$

$x \leq 200$

For $x \geq 200$ he can use test 2.

171. a Below 100, no test would be cheaper.

172. d If there are 120 widgets, he should go for test I as it is cheaper.

173. c It is clear from the table that if the number of defectives is between 200 & 400, he should go for Test II as it is cheaper.

174. a In case of 160 defectives he should use test I as it is cheaper.

175. a If there are 200 defective widgets in the lot, Prakash may use either Test I or Test II as the cost of both the Tests is same = Rs.8000.

For questions 176 to 180:

Students please note that the values on the Y-axis are not given. For the sake of convenience let us assume that one step on y-axis is 'x' and starting value be k.

Years	Food production	Fertilizer production
83	6.5 + k	2.5x + k
84	5 + k	3.5x + k
85	5 + k	3.5x + k
86	6.5 + k	2x + k
87	6.5 + k	2x + k
88	5 + k	3.5x + k
89	5 + k	x +
90	7x + k	x + k
91	7x + k	x+ k

176. d If you see, for each year from 1984 to 1988 sum of food and fertilizers = 8.5x + 2k
Hence, it is constant for 5 years.

177. d Fertilizers production in 1988 = 3.5x + k
Food production in 1988 = 5x + k
As per the given information
8.5x + 2 k = 170
Value of x and k cannot be determined.

178. b The graph of food production shows an alternate increase and decrease in every 1 to 2 years. Hence looking at the trend of the graph in 1990 and 1991, it can be expected that the graph will go down in 1992.

179. d It is clear that the graph for fertilizer production remains constant for two consecutive years. But it breaks this trend in 1989 as it has a value lower than its value in 1988.

180. d If the fertilizer production in 1989 had been the same as that in 1988, its value for 1989 would have been 3.5x + k.
Hence total fertilizer production according to our values would have been (2.5x + k + 3.5x + k + 3.5x + k + 2x + k + 2x + k + 3.5x + k + 3.5x + k + x + k + x + k) = 22.5x + 9k. As per the given information 22.5x + k = 490
Value of x and k cannot be determined.