CAT FULL LENGTH TEST 3

Time:120 minutes

No. of questions:185

**Directions for questions1 to 3: Each of the sentences
below has a bland space indicating that something has been left out. Following each
sentence, four choices are given, numbered 1 to 4. Select the appropriate choice
that makes the sentence most meaningful.**

1. At its next meeting
the committee are expected to consider
about starting
a new project

   ○ 1   ○ 2   ○ 3   ○ 4

 2. As he lay at the death's floor
he hoped that
his friend would
come on time

   ○ 1   ○ 2   ○ 3   ○ 4

3 The misfortune of Mr A is greater
than of Mr B
though he does not
speak much

   ○ 1   ○ 2   ○ 3   ○ 4

**Directions for Qs 4 to 12
Each of the sentences given below has one or more blank spaces in it. Following each
sentence four words/ set of words are given.Choose the word/ set of words that makes the
sentence most meaningful.**

4. Human history is largely a record of faltering _____, of complacent surrender to _____

  ○ effort, circumstance   ○ ego, enemies   ○ steps, self   ○ attempt, Lord

5. His irresponsible and _____ behaviour invited _____ observations on his mental ability

  ○ puerile, positive   ○ favourable, childish   ○ careful, glowing   ○ adult, adulatory

6. The _____ rationale of civilisation is the _____ of fuller, richer and more abundant life

  ○ ultimate, promotion   ○ ultimatum, induction   ○ intimate, conception   ○ superior, injection

7. When somebody talks or acts _____, we say he is mentally _____

  ○ illogically, deranged   ○ logically, upset   ○ consistently, unbalanced   ○ madly, advanced

8. A country, tribe or family ruled by a man or male heirs is called_____

○ patriarchy   ○ matriarchy   ○ monarchy   ○ hierarchy

9. Radar is _____ for 'Radio Detection and Ranging'

○ acronym   ○ synonym   ○ antonym   ○ homonym

10. It was a _____ worth celebrating with a bonfire

○ bonanza   ○ disaster   ○ carnival   ○ affair

11. The _____ of the agreement led to _____ results

○ infraction,   ○ refraction, beneficial ○ extraction,   ○ revolt, violent
detrimental   sentimental

12. She was overcome with a wave of _____ whenever she thought of her childhood in Bihar

○ nostalgia   ○ nausea   ○ frustration   ○ regret

Directions for questions 13 to 15 :- Rearrange the sentences A, B, C, and D to form a logical sequence between sentences 1 and 6.

13. In former days, a teacher was expected to be a man of exceptional knowledge or
wisdom, to whose words men would do well to attend.
A. Socrates was put to death and plato is said to have been thrown into prison, but
such incidents did not interfere with the spread of their doctrines.
B. In antiquity, teachers were not an organised profession and no control was exercised
over what they taught.
C. Any man who has the genuine impulse of the teacher will be more anxious to survive
in his books than in the flesh.
D. It is true that they were often punished afterwards for their subversive doctrines.
6] A feeling of intellectual independence is essential to the proper fulfilment of the
teacher's functions.

○ BADC   ○ ACBD   ○ CDBA   ○ BDAC

14. Indian thinkers have given much attention to the subject of peace.
A. Though the mind is very subtle and it is difficult to discern its contents,its effects
can be seen on the body.
B. Again, it is the mind itself that causes peacelessness.
C. According to our state of mind, we laugh or weep or become peaceful.
D. Peacelessness is a state of mind, but to study it, we need to use the mind itself.
6] Depending upon its purity and calmness, it can organise all the sense impressions on
the one hand and on the other, reflect the ' kingdom of God ' within.

○ DACB   ○ DBAC   ○ CDAB   ○ BACD

15. There is only one way to learn social habits: by living a life in which such
habits automatically develop.
A. In them the egotist is discouraged; the individualist discovers the existence of other
individuals and learns how to fit in with them.
B. Live in a society and in most cases, you will become a social being.
C. Boarding schools, like everything else, have their defects, but they do train people to
be members of a society.
D. That is the secret of the British boarding school, the finest factory of citizenship in

existence.
6] A boy finds himself a member of something greater than himself and learns loyalty and service to it.

⊙ BDCA   ⊙ DCBA   ⊙ BACD   ⊙ CBDA

Directions for questions 16 to 18 : In each of the following questions a phrase is highlighted followed by four different ways of rephrasing the highlighted part. Choose the correct alternative.

16. I have worked hard enough now, its time I **gave way to someone else.**

⊙ call it quits   ⊙ appointed an heir ⊙ stepped down   ⊙ none of these

17. Mr Kaluram was **thinking aloud** on the implications of the mechanism for the future.

⊙ talk in   ⊙ uttering his   ⊙ high   ⊙ thinking carefully and planning
public   thought   thinking

18. A typical intellect tries not to shake the beliefs of the common man **but to lead him through stages to the understanding of the deeper philosophical meaning behind his beliefs.**

⊙ but to leading   ⊙ but to facilitating ⊙ but to lead him   ⊙ but to effect
them through stages. them via stages.   by stages.   them vis-a-vis
                                                                 stages.

Directions for questions 19 to24: Each of the sentences below has a bland space indicating that something has been left out. Following each sentence, four choices are given, numbered 1 to 4. Select the appropriate choice that makes the sentence most meaningful.

19. In most developing contries, research and development efforts are _____by their absence.

⊙ obvious   ⊙ conspicuous   ⊙ clear   ⊙ minimised

20. Being highly _____ to criticism, he has kept his stories unpublished.

⊙ susceptible   ⊙ sensible   ⊙ sensitive   ⊙ vulnerable

21. For taking retirement, he has made _____ his business to his two son

⊙ for   ⊙ over   ⊙ off   ⊙ out

22. He is said to be as poor as _____.

⊙ job   ⊙ a church-mouse   ⊙ croesus   ⊙ a scarecrow

23. This is a group insurance policy, in favour of the workers, _____ accident or injury.

⊙ for   ⊙ on   ⊙ in   ⊙ against

24. You can try to escape from this trap only _____ of death.

- on pain
- in pain
- on pains
- under pains

Directions for questions 25 to 30: For each question below are given four different spellings of a word. Choose the correct spelling and mark the answer at the appropriate space on the answer sheet.

25. gratuitous gratutious gratutous gratuteous

26. ephimeren ephemoren ephemeron ephime

27. mispelt mispelled misspeld misspelt

28. tableau tablue tablaeu tabloeu

29. liquiscent liquescent liquecent liquicent

30. pneumactic neumactic pneumatic pnuematic

Directions for questions 31 to 32: For each question below are given four different spellings of a word. Choose the correct spelling and mark the answer at the appropriate space on the answer sheet.

31. endeovour endeavour endevour endevor

32. rythemic rhythmic rhythemic rythmic

Directions for questions 33 to 38: In each question below, a capitalised word is followed by four words or phrases numbered 1 to 4. Select the word most nearly opposite to that word.

33. YOKEL

 sophisticate farmer simpleton bumpkin

34. NAÏVE

 harmless artful effective fashionable

35. DOVE

 predator miser hawk interventionist

36. FOREBEAR

 resist beneficiary progeny aggrandize

37. ON THE CONTRARY

 clearly exactly furthermore similarly

38. PICAYUNE

 significant expert gentle novice

Directions for questions 39 to 44: Each capitalized word below is followed by four words or

phrases numbered 1 to 4. Choose the word or phrase that has most nearly the same meaning as the capitalized word. Consider all the alternatives carefully before you make the choice.

39. IMPETRATE

  ○ curse   ○ entreat   ○ jeopardize   ○ confine closely

40. LIMPID

  ○ clear and graceful   ○ flexible   ○ crippled   ○ clinging

41. NONAGE

  ○ stage of immaturity   ○ ninety years   ○ particular occasion   ○ group of nine musicians

42. PECULATE

  ○ guess   ○ embezzle   ○ sinful   ○ comblike

43. REPRISAL

  ○ retritution   ○ retort   ○ representation   ○ protest

44. HALE

  ○ greeting   ○ wholeness   ○ compulsion   ○ strong and well

Directions for questions 45 to 49: each of the sentences below has two bland spaces which are meant to be filled in with one of the four choices numbered 1 to 4. Select the appropriate choice that makes the sentence most meaningful, and mark your answer at the right place.

45. In spite of his arrogant blunders, his grip over his party never_____ since his claim was that there was no _____ his leadership.

  ○ wavered;sophistication in   ○ improved;repetition of   ○ slackeded;alternative to   ○ flourished;substitute for

46. The Chairman had to quickly refute the allegation that his country was trying to _____ the starving people of Zambia with weapons of war _____ their crying need for food and medicine.

  ○ alienate;due to meet   ○ emancipate;for to meet   ○ enervate;in an attempt to meet   ○ appease;rather than meet

47. '_____' means only a '_____shade of distinction.'

  ○ paradox;fine   ○ vindication, forceful   ○ nuance,subtle   ○ prevarication,clever

48. The feeling of being uncared for and _____ are the greatest _____

  ○ unwanted;poverty   ○ unused;blessing   ○ uneasy;curse   ○ uncaring;bane

49. The two Ministers were _____ criticised because neither spoke _____ against the government's wishy-washy attitude to racial discrimination.

| ○ both,genuinely | ○ brutally,anything | ○ fairly,falsely | ○ severely,firmly |

Directions for questions 50 to 52:In each question below are given four words, each designated by a number 1,2,3 or 4. One of the four words is spelt incorrectly. Choose that word.

50. combinatorial camelier calvary comatose

51. chary loath infamy turpid

52. hubris sauves demure weird

Directions for questions 53 to 55 : In each of the following sentences, four words or phrases are underlined. You should choose the one word or phrase which would be not appropriate in standard written English.Mark (5) if you think that the sentence has no error.

53. After she had <u>laid</u> <u>down</u> for <u>a while</u>, he <u>felt</u> better.

| ○ 1 | ○ 2 | ○ 3 | ○ 4 |

54. <u>She was</u> <u>puzzled</u> and <u>concerned</u> <u>about</u> her behaviour

| ○ 1 | ○ 2 | ○ 3 | ○ 4 |

55. The <u>troupe</u> <u>nearly</u> entertained us <u>for</u> <u>four hours</u>.

| ○ 1 | ○ 2 | ○ 3 | ○ 4 |

Directions for questions to 56 to 60: Each sentence is broken into four parts 1,2,3,4.Mark the part which has an error. Ignore errors of punctuation.

56. Every man, woman and child in the house on fire have been saved.

| ○ Every man, woman | ○ and child | ○ in the house on fire | ○ have been saved. |

57. One of the best lawyers in town have been hired.

| ○ One of the | ○ best lawyers in town | ○ have been | ○ hired. |

58. I request you kindly to come to me immediately.

| ○ I request you | ○ kindly to | ○ come to me | ○ immediately. |

59. My friend's mother is the principal of a girl's college.

| ○ My friend's mother | ○ is the principal | ○ of a | ○ girl's college. |

60. To succeed in these tests it is absolutely necessary for us to aim for speed and accuracy.

| ○ To succeed in these test | ○ it is absolutely necessary | ○ for us | ○ to aim for speed and accuracy. |

Directions for question 61 to 110. Choose the correct alternative.

61. "A game of 50" means a game in which the player scoring 50 points first is the winner. In a game

of 50, A can give B 10 points. This means that when A scores 50, B scores 40 points. In a game of 50, A can give B 10 points, but B can give C 20 points. With the same efficiency how many points can A give C?

◯ 30   ◯ 25   ◯ 40   ◯ 50

62. 2 pipes X and Y fill a tub in 10 min and 15 min resp. Both are opened and at the end of 5 minutes X is turned off. How much time will the tub take to fill?

◯ 3/2 min   ◯ 1/2 min   ◯ 4/3 min   ◯ 5/2 min

63. Walking at 2/3 of his usual speed a man is 2 hrs.late. Find his actual travel time

◯ 8 hrs   ◯ 4hrs   ◯ 3hrs   ◯ none of these

64. A train after travelling 30 km from X meets with an accident and proceeds at 3/4 of the former speed and reaches by 45 min. late. Had the accident happened 10 kms further one, it would have arrived 15 min sooner. Find the original speed and distance.

◯ 60km   ◯ 30 km   ◯ 50 km   ◯ 20 km

65. A cat sees a rat 50 metres away from her and moves in the opposite direction at a speed of 12 km/hr. A minute later the rat sees her and gives chase at a speed of 15 km/hr. How soon will the rat overtake her?

◯ 5 min   ◯ 6 min   ◯ 2 min   ◯ 12 min

66. 3 pipes can fill a reservoirin 10,15 and 20 hrs. resp. The first was opened at 5 a.m. , the second at 6 a.m., third at 7 a.m. When will the reservoir the filled?

◯ 5:20a.m.   ◯ 6:30 a.m.   ◯ 10:20 a.m.   ◯ 4 p.m.

67. Rowing at a steady rate, a man travels downstream for an hour and covers 5 km. If he takes 1hr.20min. For the return journey. Find the speed of the current?

◯ 0.625 km/hr   ◯ 0.325 km/hr   ◯ 0.75 km/hr   ◯ none of these

68. If 15 men and 10 boys can do in 1 day as much work as 12 men and 20 boys. How much should a man be paid a day if a boy is to get Rs.10 a day?

◯ Rs.30   ◯ Rs.33.33   ◯ Rs.40   ◯ Rs.45

69. A cop after a robber who has 100m start. The cop runs 2 km in 8mins. And the thief 2 km in 12 mins. How far the thief has gone before he overtaken?

◯ 200   ◯ 210   ◯ 250   ◯ 300

70. 1The sides of a triangle are 5:6:7 and its area is 800 sqft. Find its sides?

◯ Sqrt[800/sqrt(225)]   ◯ sqrt[800/sqrt(216)]   ◯ sqrt[800/sqrt(210)]   ◯ sqrt[760/sqrt(220)]

71. Find the area of the cyclic quadrilateral whose sides are 15,12,10 and 13 cms.

◯ 30*sqrt(26)   ◯ 30*sqrt(20)   ◯ 10*sqrt(6)   ◯ 10*sqrt(2)

72. Cost of painting the 4 walls of a room 40ft.*15ft. At Rs.5 per square feet is Rs.7500. Find the height of the room?

- ○ 14 ft.
- ○ 13.63 ft.
- ○ 15.72 ft.
- ○ 21.2 ft.

73. The areas of a trapezium of height 20 cm. Is 800 cm^2. One parallel side is 10 cm. Longer than the other. Find the parallel side?

- ○ 35,45
- ○ 30,40
- ○ 45,35
- ○ 60,70

74. Volume of a right circular cylinder is 450 cm^{3}and its curved surfaces area is 200 cm^2. Find its radius?

- ○ 2.5 cm
- ○ 1.5 cm
- ○ 5cm
- ○ 4.5 cm

75. Iron weighs 8 times the weight of steel . Find the diameter of an iron ball whose weight is equal to that of a ball of steel 16 inches diameter?

- ○ 6
- ○ 7.5
- ○ 9
- ○ 8

76. A rectangle 5cm*3cm is rotated about its smaller edge as axis. Find the curved surface area and volume of solid generated?

- ○ 85,60
- ○ 35,40
- ○ 75,30
- ○ 30,75

77. A well 20m in diameter is dug 15m deep and earth is spread all around a width of 5m to form an embankment. Find the height of the embankment.

- ○ 69
- ○ 82
- ○ 80
- ○ 75

78. The radius of a circular cylinder is increased 40%. Find the % increase in volume?

- ○ 95
- ○ 96
- ○ 72
- ○ 48

79. A river 10m deep 200m wide flows at the rate of 6km/hr. Find the metric tones of water running into the sea per minute?

- ○ 30000
- ○ 10000
- ○ 2*10^5
- ○ 2*10^4

80. If the diameter of a cylinder is 14cm. And height is 10cm, then total surface area (in cm^2) is:

- ○ 748
- ○ 896
- ○ 558
- ○ 468

81. The radius of a cylinder is 2m. And its length is 20m. The area of an iron sheet constructed from the cylinder is:

- ○ 88*22/7
- ○ 80*22/7
- ○ 36*22/7
- ○ 54*22/7

82. The sum of the radius of the base and height of a solid cylinder is 40m. If the total surface area of the cylinder is 1760 m^2 its volume is:

- ○ 5700^3
- ○ 5420m^3
- ○ 5082^3
- ○ 5600^3

83. the radii of 2 cylinders are in the ratio 3:4. Their heights are in the ration 2:3. The ratio of their

volumes is

○ 1:2   ○ 2:1   ○ 3:4   ○ 2:3

84. Two cylinders of equal volume have their heights in the ratio 2:3. Ratio of their radii is

○ 1:4   ○ 1:sqrt(2)   ○ sqrt(2):1   ○ 2:1

85. If a train runs at 20 km/hr, it reaches its destination late by 10 min. But if it runs at 30 km/hr, it is late by 2 min. only. The correct time for the train to complete its journey is:

○ 12 min   ○ 8 min   ○ 14 min   ○ 15 min

86. Two busess travel to a place 20 kmph and 40 kmhr. If the second bus takes 6 hrs. less than the fixed for the journey the length of the journey is:

○ 262 km   ○ 240km   ○ 200km   ○ 271.5km

87. A car travels a distance of 360km at a uniform speed. If speed of the car is 20km/hr more then time is 3 hrs. less.The original speed of car was:

○ 40   ○ 45   ○ 32   ○ 37

88. A man covers 30km partly at 4km/hr and 6km/hr. If he covers former distance 6km/hr and later at 4 km/hr,he could cover 2km more in the some time. Time taken to cover the whole distance in the original time is:

○ 3.75   ○ 6.2   ○ 5.5   ○ 4.7

89. A theif steals a car at 1p.m. and drives it at 20km/hr. The theft is discovered at 2p.m. The owners sets of another car at 30 km/hr, he will overtake the thief at:

○ 3:06p.m   ○ 2:52p.m.   ○ 4:00p.m.   ○ 2:20p.m.

90. 1The ratio between the rate of walking of x and y is 2:3. If the time taken by B to cover a certain distance is 24min, to cover the same distance A will take:

○ 32   ○ 48   ○ 16   ○ 36

91. 125, 106, 89, 76, 65, _____

○ 56   ○ 53   ○ 58   ○ 59

92. 5, 6, 3, 4, 1, _____

○ 2   ○ 4   ○ -2   ○ 6

93. 12, 30, 105, 473, 2599, _____

○ 15913   ○ 16892   ○ 3654   ○ 3564

94. 13,20,140,147,1029, _____

○ 1056   ○ 7203   ○ 1033   ○ 1036

95. The area of a triangle with base 36 cms is equal to the area of a circle of radius 21 cms. Determine the approximate height of the triangle.

- 77cm
- 75cm
- 52 cm
- 46 cm

96. Pens at 20 Rs each and books at 40 Rs each were purchased. In all these were 6, at a total cost of Rs.180. If the number of Pens and books were interchanged, how much less would have been spent ?

- 0
- same amount
- Rs.2.50
- Rs.6

97. 123, 211,299,156,244,_____

- 325
- 250
- 332
- none of these

98. 855,7695,69255,623295,_____

- 5629653
- 5609655
- 6609655
- 1608652

99. An empty jar weighs w_1 gm. The jar half filled with a liquid weights w_2 gm. Find the weight of the jar. Completely filled with the same liquid.

- $2(w_2-w_1)$
- $2w+w_1$
- $2w_2-w_1$
- $2(w_2+w_1)$

100. A person travels the first 1/3 of distance to be covered at a speed of x km/hr, the 2nd 1/3rd at 2x km/hr and the final 1/3rd at 3x km/hr. What is the average speed for the entire journey?

- x km/hr
- 1/2*x km/hr
- 2/3*x km/hr
- 18/11*x km/hr

101. Triangle PQR is an isosceles triangle in which the sides in which the sides xy and xz are 15 each and the base yz is 18. ABCD is a squar, the side AB being on yz and cd in xz and xy resp. Find the area of ABCD?

- 53
- 52.65
- 51.84
- 60.09

102. Mohan deposits Rs.150 on the first of every month starting from 1st Jan1985, in the recurring deposit scheme of a bank which allows simple interest @ 6% p.a.on the sum standing to his credit at the end of each month. What is the amount, Mohan is entitled to on 31st Dec, 1985

- Rs.1818
- Rs.1800
- Rs.1450
- Rs.1400.80

103. A strip of paper 100m long, 4cm wide and 0.1mm thick is wound round a cylindrical Core of diameter 10 cm and height 4cm. What is the diameter of the cylinder now?
- $41.2cm^2$
- $40cm^3$
- 43.5cm
- 63cm

104. A rhombus has sides 10cm each and the circle that is inscribed in it has radius 1.5cm. What is the area of the rhombus in cm^2

- $30cm^2$
- $15cm^2$
- $4cm^2$
- $10cm^2$

105. To comfortably sit in a room, every girl must be allowed a floor space of 2 sq.m. and air space of 5.5 cubic metres. Fifty girls are to be seated comfortably in a room 10m. long. What should be its height?

○ 5.5m   ○ 6.6m   ○ 6.5m   ○ 5m

106. Simplify sqrt$(64+64x^2)$ = sqrt$(25+25x^2)$

○ 3sqrt$(1+x^2)$ ○ sqrt$(1+x^2)$ ○ sqrt$(1-x^2)$ ○ 4sqrt(x^2)

107. O is the centre of a circle. XP is a tangent at X.Angel YXP = 50°. Find the measure of the arc XYZ

○ 100° ○ 50° ○ 180° ○ 90°

108. Two positive numbers are such that the ratio of the square of the first to the cube of the second is to the ratio of the cube of the first to the square of the second as 1/20. Find the ratio of the 2 numbers.

○ 3:4   ○ 2:1   ○ 1:2   ○ cannot be determind.

109. Company A pays 5.5% on shares of Rs.100, and another pays at the rate of 3.5%
On shares of Rs.10 each. If the price of the former be Rs.150.00 and of the later Rs.15.00, compare the rates of interest which the shares return to a purchaser.

○ 36.67% and 86.37%   ○ 37.66% and 86.66%
○ 67.36% and 87.36%   ○ None of these.

110. Factorise$(x-y)^3+(y-z)^3-(x-z)^3$

○ 3(x-y)(y-z)(x-z)   ○ 3(xyz)
○ 3x-3y-3z   ○ cannot be found.

Direction for questions 111 to 120: Study the table carefully and answer the questions that follow.

Type of companyà	No. of shares in mgt.	Limited cosultation on non critical issues	Full consultation in critical issues	Joint decision making	Full employee control
Profits					
10-50	30	10	3	20	2
50-100	20	5	17	10	1
100-150	15	7	21	40	1
150-200	4	8	20	40	2
>=200	5	10	7	30	0

*Consultation means just taking employee opinion it is not involving employees in decission making.

111. The company making the most profits were the ones

○ who involved employees in decission making.
○ Consulted the employees.
○ Did not listen to employees.
○ Gave full control to employees.

112. The least number of companies showing profit in all the profit categories were

○ not managed well.
○ Did not consult others.
○ Under full employee control.
○ Were under management control.

113. If the total amount of profit generated by all the companies in the 10 – 50 lacs category is 13.00 crores then the average profit is

○ 20 lacs.
○ 21 lacs.
○ 18 lacs.
○ 22 lacs.

114. If company with joint decission making style in the 50-100 lacs profit category made an average profit of 80 lacs and company of limited consultation made average profit by all companies in joint decission making is in comparison,

○ less by Rs 350 lakhs.
○ Greater by Rs 3.5 crores.
○ Greater by Rs. 3.5 lakhs.
○ Greater by Rs. 350 crores.

115. The average profit required to be made by companies with full consultation in the 7200 lacs segment 50 that their total profit equals that made by companies of no share in mgmt type with average profit of 280 lacs is

○ 1400 lacs.
○ 280 lacs.
○ 220 lacs.
○ 200 lacs.

116. If you are appointed as a consultant and are to advice the atrategy for employee Relations based on the above data you would , advice

○ full employee control.
○ Joint decision making.
○ No share in management.
○ Limited consultation.

117. In the range of profits from Rs 10 – 150 lacs, across categories
I No share in mgmt and full employee control show a similar trend.
II Consultation in critical issues shows an increasing trend.
III Joint decision making shows an increasing trend.

○ I and II only.
○ II and III only.
○ I and III only.
○ I II and III.

118. The maximum jump in the number of companies from one category to the next occurs in case of which style.

◎ Full employee control.
◎ Limited consultation.
◎ Full consultation style.
◎ Joint decision making.

119. The ratio of the number of companies in one style of employee relation is exactly twice of another style in the same category. The unique thing is that this occurs thrice in mat category. This category is

◎ 10 – 50 lacs.
◎ 50 – 100 lacs.
◎ 150 – 200 lacs.
◎ >- 200 lacs.

120. In case of the ratio mentioned in question (9) above which of the style occurs twice, once as a numerator and once as a denominator.

◎ Full consultation.
◎ No share in management.
◎ Joint decision making.
◎ Full employee control.

Directions for questions 121 to 150

Each question is followed by 2 statements
Mark (1) if statement I alone is suficient but statement II alone is not sufficient
Mark (2) if statement II alone is sufficient but statement I alone is not sufficient
Mark (3) if both statements I & II together are sufficient but neither statements alone is sufficient
Mark (4) if each statement alone is sufficient
Mark (5) if statement I &II together are not sufficient.

121. What is the present age of Shyamu?

    a. His birthday was on 29th Feb
    b. His age 5 years ago was a 2 digit odd no. the sum of the digits being an even prime number.

    ◎ 1   ◎ 2   ◎ 3   ◎ 4   ◎ 5

122. What is the average speed of Kishan

    a. He walks at 20 miles hour from place P to another place Q and returns at 15 miles per hour.
    b. Distance from P to Q is 50 miles.

    ◎ 1   ◎ 2   ◎ 3   ◎ 4   ◎ 5

123. Find R in the trapezium PQRS.

    a. P = 60 ^{0}
    b. Q =30 ^{0}

    ◎ 1   ◎ 2   ◎ 3   ◎ 4   ◎ 5

124. A 2 digit no. is divisible by 5. What is the

a. the unit digit is 1 /2 the number ten's digit
b. sum of the digits is 10

   ◯ 1   ◯ 2   ◯ 3   ◯ 4   ◯ 5

125. What is the S.P of a radio?

a. Profit on S.P is 5%
b. Profit on S.P is 1/4 profit on C.P

   ◯ 1   ◯ 2   ◯ 3   ◯ 4   ◯ 5

126. What is the value of P m triangle PQR

a. R = 2 Q
b. PQ = 5, QR = 6

   ◯ 1   ◯ 2   ◯ 3   ◯ 4   ◯ 5

127. Was a "black Mercedes" here yesterday ?

a. All the cars that were here yesterday were black
b. Some mercedes were black.

   ◯ 1   ◯ 2   ◯ 3   ◯ 4   ◯ 5

128. Is A to the northwest of B

a. C is to the South east of A
b. C is to the northwest of B

   ◯ 1   ◯ 2   ◯ 3   ◯ 4   ◯ 5

129. Is X the right person to be chosen

a. Nobody who cannot face this challenge is the right person to be chosen
b. X cannot face this challenge.

   ◯ 1   ◯ 2   ◯ 3   ◯ 4   ◯ 5

130. In the rectangle PQRS what is the length ?

a. Area of rectangle is 50 sq. units.
b.. PR = 25 units.

   ◯ 1   ◯ 2   ◯ 3   ◯ 4   ◯ 5

131. Is point A in the first Quadrant

a. A lies within the circle with centre at origin and radious 4
b. A lies on the straight line $3x + 4y = 6$

   ◯ 1   ◯ 2   ◯ 3   ◯ 4   ◯ 5

132. Is line PQ tangent to the circle within center R

a. One of the radii of the circle is perpendicular to PQ
b. Q is a point in the circumference, and RQ is perpendicular to PQ

    ⊙ 1   ⊙ 2   ⊙ 3   ⊙ 4   ⊙ 5

133. What is the value of a

a. $(a^2)^2 = a^4$
b.$(a^3)^2 = (2^2)^3$

    ⊙ 1   ⊙ 2   ⊙ 3   ⊙ 4   ⊙ 5

134. What is the average salary of x , y, z

a. x y draw equal salaries z's salary is half of x y
b. z's salary is Rs. 200 less than y

    ⊙ 1   ⊙ 2   ⊙ 3   ⊙ 4   ⊙ 5

135. Is Satish older than Ganesh

a. Kartik is 5 years younger than Satish and 2 years younger than Dinesh
b. the average of Satish's age in years and Ganesh's age in years is 15.

    ⊙ 1   ⊙ 2   ⊙ 3   ⊙ 4   ⊙ 5

136. What is the area of a square PQRS

a. The Perimeter of the square is 30.
b. The length of the diagonal is 4 sqrt. 3

    ⊙ 1   ⊙ 2   ⊙ 3   ⊙ 4   ⊙ 5

137. Is the radious of circle with centre A a whole number

a. The circumference of the circle is 10 (22 /7)
b. The ratio of the circumference of the circle to the area of the circle is 1/ 3

    ⊙ 1   ⊙ 2   ⊙ 3   ⊙ 4   ⊙ 5

138.Are the integers a ,b, c ,d , e which have been written in the ascending order consecutive?

a. C is the average of the five integer
b. C = b + 3

    ⊙ 1   ⊙ 2   ⊙ 3   ⊙ 4   ⊙ 5

139. What is the area of the triangle PQR

a. P , Q , R are the midpoints of the triangle ABC.
b. Triangle ABC is an equilateral triangle of side 20 cm

    ⊙ 1   ⊙ 2   ⊙ 3   ⊙ 4   ⊙ 5

140.How many stones are there totally with x y

a. If x gives 5 stones to y they will have an equal number
b. If y had 10 stones less he will have half the number as with x

○ 1   ○ 2   ○ 3   ○ 4   ○ 5

141. What is the value of y ; x ,y , z are real numbers

a. x ,y , z are such that Y^2 = xz
b. x = z and both are positive

○ 1   ○ 2   ○ 3   ○ 4   ○ 5

142. A tank contains 15 litres of water if an inlet A and an outlet B are opened at the same time the tank is completely filled in 5 hour. How many litres does the tank hold

a. pipe A alone takes 2 hours to fill the tank
b. If the tank is completely filled then pipe B alone takes 3 hours to empty it.

○ 1   ○ 2   ○ 3   ○ 4   ○ 5

143. What is the ratio of the rates of interest for the two schemes

a. Rs. 6000 invested in the first scheme amounts to Rs. 12000 in 4 years
b. Rs. 8000 invested in the second scheme amounts to Rs. 16000 in one year.

○ 1   ○ 2   ○ 3   ○ 4   ○ 5

144. What is the speed of A

a.. A takes 15 seconds to run up on escalator 135 m long
b. A takes 20 seconds to run down the escalator

○ 1   ○ 2   ○ 3   ○ 4   ○ 5

145. What is the total surface area of a cylinder

a. The lase area is 60.
b. The volume is 360

○ 1   ○ 2   ○ 3   ○ 4   ○ 5

146. At what time would the Rajdhani Express reach Mumbai

a. It left Delhi at 11 a.m. runs at an average speed of 30 km / hour
b. Geetanjali Express which left Mumbai at 12 p.m runs at the same speed towards Delhi crossed it at 1 :30 p.m. on the same day.

○ 1   ○ 2   ○ 3   ○ 4   ○ 5

147. What is the total cost of tiles needed for a room 12 ft by 10 ft

a. The tiles are 4 inches square each
b. Tiles cost Rs. 15 sq.feet

○ 1   ○ 2   ○ 3   ○ 4   ○ 5

148. What is the rate of S.I.

  a. The principal doubles itself in 5 years
  b. The principal is Rs. 1580.

     ○ 1   ○ 2   ○ 3   ○ 4   ○ 5

149. What is the profit when 2 varieties of coffee at Rs. 5/ kg and Rs. 10/ kg are mixed and sold for Rs. 8/ kg.

  a. The total quantity sold was 10 kgs
  b. The total cost of the mixture was Rs. 70.

     ○ 1   ○ 2   ○ 3   ○ 4   ○ 5

150. In a 50 m race B takes half a minute more than A to complete the race. How much can A give B in a boom race.

  a.. A runs 50 m in 5 minutes.
  b. A is faster than B.

     ○ 1   ○ 2   ○ 3   ○ 4   ○ 5

Directions for questions 151 to 160 : Read carefully the passages given below and answer the questions that follow.

Passage 1

How strange time is and how queer we are! Time has really changed and   it has changed us too. It walked one step forward, unveiled its grace, alarmed us and hen elated us.
Yesterday we complained about time and trembled at its terrors. But today we have learned to love it and revere it, for now we understand its intents, its natural disposition, its secrets and its mysteries.
Yesterday we were a toy in the hands of Destiny. But today Destiny has awakened from her intoxication to play and laugh and walk with us. We do not follow her but she follows us.

Questions:

151. The author is talking about

  ○ Time and how it has changed
  ○ Our queerness
  ○ Our fright
  ○ None of the above.

152. The author tries to say that along with time

   ○ We have become more frightened
   ○ We have changed too
   ○ We also walk with it
   ○ None of the above

153. When the author says that "……. Destiny follows us", he means

   ○ Destiny can take walks

○ Destiny can play like us
○ Destiny can sleep and awake like us
○ We have conquered destiny

154. The author throughout the passage sounds

○ sad
○ pessimistic
○ angry
○ optimistic

155. The passage has probably been written by a

○ Novelist
○ Philosopher or a poet
○ Botanist
○ Historian

Passage 2

As comprehensive socialism has diminished an opposing doctrine has emerged. This is privatisation. As a broad rule, privatisation ranks with socialism in irrelevance. There is a large area of economic activity in which the market is and should be unchallenged. Equally there is a large range of activities that increases with increasing economic activity where the services and functions of the state are either necessary or superior. Privatisation is not any better as a controlling guide to public action than is socialism. In both the cases the primary service of the doctrine is in providing escape from thought. In a good society there is in these matters one dominant rule: Decisions must be made on the social and economic merits of the case. This is not the age of doctrine. This is the age of practical judgement.
Questions:
156. The author is

○ anti- socialism
○ anti-privatisation
○ calls for a balance between both
○ None of the above

157. The following statement is false

○ Socialism has disappeared
○ Privatization cant be used in all areas
○ Privatisation and socialism are opposing doctrines
○ All of the above

158. The piece was written in the

○ 1960s
○ 1970s
○ 1990s
○ 1950s

159. In a good society, decisions are made based on

○ ad-hoc
○ on cash flows
○ on economic and social merits of cases
○ on economic value

160. In this passage the central idea is of the

○ Theory of ideologies
○ forms of governments
○ Relevance of socialism even today
○ Economic activities

**Study the statements and the two conclusions and state if:(A) Only conclusion I follows
(B) Only conclusion II follows
(C) Both conclusions I and II follow
(D)Neither I or II follow**

161. Statements: Due to contamination of water a large number of people were admitted to the hospital. The symptoms denoted Malaria.
Conclusion:
(I) Contamination of water may lead to Malaria
(II)Malaria is a disease 3
○ A   ○ B   ○ C   ○ D

162. Statements: To own a personal imported motor bike one requires an import license
Conclusions:
(I) Motor bikes are manufactured in India
(II) They can be imported easily 4
○ A   ○ B   ○ C   ○ D

163. Statements: The average number of students in cities is 40 per teacher, whereas in the villages it is 50. The combined average is 45.
Conclusions:
(I) The student-teacher ratio in the cities is not satisfactory
(II) Student-teacher ratio in cities is higher than that in the villages
○ A   ○ B   ○ C   ○ D

**Study the statements and the two inferences that follow and state if:
(A) Only inference I follows
(B) Only inference II follows
(C) Both inferences I and II follow
(D)Neither I or II follow**

164. Statements: All monkeys are donkeys. Some monkeys are rabbits
(I) Some rabbits are donkeys
(II) Some donkeys are rabbits
○ A   ○ B   ○ C   ○ D

165. Statements: No petal is a plant. No plant is a thorn
(I) No thorn is a petal
(II) No Petal is thorn
○ A   ○ B   ○ C   ○ D

166. No bird is an animal. All birds are insects

(I)No insect is animal
(II)No animal is insect
○ A   ○ B   ○ C   ○ D

167. All expectations are liars. All fears are dupes. So
(I)All expectations are fears
(II)All liars are dupes
○ A   ○ B   ○ C   ○ D

168. Every ink is blue. Flowers are blue. So
(I)Flower is ink
(II)Ink is flower 1
○ A   ○ B   ○ C   ○ D

169. No cat is rat. No rat is dog. So
(I)No cat is dog
(II)No dog is cat 4
○ A   ○ B   ○ C   ○ D

170. All slaves are masters. All masters are harsh
(I)All slaves are harsh
(II)All harsh are slaves
○ A   ○ B   ○ C   ○ D

Directions for questions 171 to175
Each question below is followed by four arguments. Classify them into strong and weak arguments.
Strong arguments must be both important and directly related to the question.
Weak arguments may not be directly related or may be of minor importance

171.Movies should not be censored.
I No: Movies can contain obscenity and violence
II Yes: Censorship boards are overworked anyway.
III Yes: Censorship implies that a few people know what is good for the rest.
IV Yes. Movies are facing competition from television.

○ All strong   ○ Only II weak   ○ II and IV weak   ○ All are weak

172. Honesty is the best policy
I Yes: To be honest pays in the long run
II No: Honesty is often taken advantage of
III No: Honesty is rarely appreciated
IV Yes: An honest person has a clear conscience, and is a happier person

○ I strong   ○ All are strong   ○ II is strong   ○ III is strong

173. The dowry system has to be legalized
I Yes: All the dowry payers will be happy
II No: Legislation will encourage the practice
III Yes: Legalization will help institute checks and controls
IV No : A shameful practice is best conducted secretly

○ II and III strong   ○ All are weak   ○ IV is weak   ○ II is weak

174. Money is the root of all evil

I Yes : Money can drive men to murder and robbery
II No : Money is mechanical
III No : Only trees have roots
IV Money signifies greed, which is the root of all evil

○ II strong   ○ All are weak   ○ All are strong   ○ I and IV are strong

175. One day you have to quit working. Invest wisely today, and you won't stop spending
I Yes : A wise investment today can give one an assured future income
II No : It is not necessary that an investment today, however wise, can guarantee
'continued spending' in the future
III Yes : Someday or the other, everybody stops working
IV No : Investment is not an area that everybody is comfortable with.

○ I and II are strong   ○ I II and III are strong   ○ All are strong   ○ All are weak

Directions for questions 176 to 180
**Classify the statements as Fact(F), Inference(I), or Judgement(J), based on the
definitions given below**
FACT: Something that can be seen or heard, and is capable of being verified.
INFERENCE: The statement that is drawn or concluded from a fact
JUDGEMENT: Is an opinion, and implies approval or disapproval

176. a] This is a red book
b] All red books are unlucky
c] Red books are more attractive than blue ones

○ FFF   ○ IJJ   ○ JFJ   ○ FJJ

177. a] The goat is sitting on the grass
b] The grass is green
c] Plastic is not a bio-degradable substance

○ JJJ   ○ FFF   ○ FIJ   ○ FFJ

178. a] It is unimaginable
b] God is great
c] Politics is the last refuge of the criminal

○ FFF   ○ JIJ   ○ JFF   ○ JJJ

179. a] Catches win matches
b] Its just not cricket
c] Spectators find one-day matches more interesting than test matches

○ FFJ   ○ JIJ   ○ IJI   ○ IIJ

180. a] She was writing, seated on a table
b] I love his mild nature
c] The secretary gave a friendly smile

○ JJJ   ○ FJJ   ○ FII   ○ FFI

Directions for questions 181 to 185
**An argument is a statement meant to convince another person about your point of
view**

An assertion is a point of view
A counter-argument contains logic opposing the assertion
Based on the above definitions, classify each of the given set of statements into
I Assertion   II Supporting reason
III Counter argument   IV Irrelevant argument

181. a] They sold 850 chairs thereby getting a net profit of Rs 100,000
b] The IT department did the right thing when it acquired undervalued property nearly
10 years ago
c] In the last 2 auctions, the department failed to sell any of the 53 chairs on view
d] Even in an advertising blitz in the Gulf did not generate much revenue

  ◯ IV,IV,III,III   ◯ I, II,III,III   ◯ II, I, III, III   ◯ I, II, II, II

182. a] It is difficult to be happy
b] The symptoms of happiness are a source of happiness
c] Happiness comes from a lack of want
d] Unhappiness creates a lack of want

  ◯ I, II, II, II   ◯ IV, I, II, II   ◯ I, II, I, II   ◯ I, II, IV, IV

183. a] A cheat
b] A liar
c] He is a twisted man
d] A friend to be relied on

  ◯ II, II, I, III   ◯ IV, IV, II, III   ◯ II, III, I, IV   ◯ I, I, II, II

184. a] The difference between good and evil is a fine dividing line
b] For example, is abortion right or wrong
c] Nature has not devised simplicity
d] Even a small leaf is of infinite complexity

Explanatory answers to Paper-3

1. [2]   2. [1]   3. [2]   4. [1]   5. [1]   6. [1]   7. [1]   8. [1]   9. [1]   10. [1]

11. [1]   12. [1]   13. [4]   14. [2]   15. [1]   16. [2]   17. [2]   18. [3]   19. [2]   20. [3]

21. [2]   22. [2]   23. [4]   24. [1]   25. [1]   26. [3]   27. [4]   28. [1]   29. [2]   30. [3]

31. [2]   32. [2]   33. [1]   34. [2]   35. [3]   36. [3]   37. [2]   38. [1]   39. [2]   40. [1]

41. [1]   42. [2]   43. [2]   44. [4]   45. [3]   46. [4]   47. [3]   48. [1]   49. [4]   50. [2]

51. [4]   52. [2]   53. [5]   54.[2]   55. [2]   56. [4]   57. [3]   58. [2]   59. [4]   60. [4]

61. A = 50pts., B = 40pts.
B = 50pts., C = 30pts.
l.c.m. of 50 and 40 is 200
If B gets 200, A gets 250, C gets 150pts.
If A gets 50, C gets 50*150/250 = 30pts.
Hence[1]

62. Work done by x and y in 5 min = 5(10+15/150) = 5/6
Remaining work = 1/6

for doing 1/15 work, q takes 1 min.
for doing 1/6 work,?
1/6*1*15 = 5/2 min
Hence [4]

63. Let time be t and speed be s.
Distance travelled = st = 2/3 s*(t+2)
t = 2/3 (t+2)
t = 4hrs.
Hence [2]

64. Let the speed be x.
When speed becomes 3/4th of the usual time, time becomes 4/3 i.e. 1/3rd more of the usual time.
1/3rd of usual time = 45min.
1/3rd of usual time taken to travel by = 45-15
1/3rd of usual time taken to travel AB = 10kms = 15min.
Usual time taken to travel 10km = 45 min
usual speed = 10*60/45 = 40/3 km/hr
Usual time taken to travel Ay = 45*3 =135 min = 2 hrs.15min.
Distance = 40/3*135/60 = 90/3 = 30 km
Total distance = 30+30 = 60km
Hence[1]

65. 12km/hr = 12*100/60 = 200metres/min
Distance of the cat from the rat = 50+200 = 250metres
Since both are moving in same direction, the rat gains 15-12 = 3km/hr i.e. 50 metres/min
Time required to overtake = 250/50 = 5 min
Hence [1]

66. Let time be t hrs after 5a.m.
6.5t-5 = 30
6.5t = 35
t = 5 1/3 hrs.
The resoirvoir will fill at 5a.m.+5 hrs20min = 10.20a.m.
Hence[3]

67. speed down the river = 5km/hr
speed up the river = 5/(1 1/3) = 3.75 km/hr
speed of the current = 1/2(5-3.75) = 0.625 km/hr
Hence[1]

68. 15m + 10b = 12m+20b
3m = 10b
money earned by 10 boys = Rs.100
Rs.100 = money earned by 3 men.
1 man should be paid 100/3 = Rs.33.33
Hence[2]

69.The cop gains 1/8-1/12 = 1/24 km/min = 41 2/3 m/min
To gain 100m, time, 100/(41 2/3) = 2.4 min
The thief has gone ahead by 2.4*1/12*1000 = 200m
Hence [1]

70. If the sides are 5x, 6x and 7x
s = 18x/2 = 9x
Area = sqrt[s(s-a)(s-b)(s-c)] = 800

= sqrt[9x(9x-5x)(9x-6x)(9x-7x)] = 800
x = sqrt[800/sqrt(216)]
Hence [2]

71. s = a+b+c+d/2 = 50/2 = 25
Area of the quadrilateral = sqrt(10*13*15*12) = 30*sqrt(26)cm^2
Hence [1]

72. Area of 4 walls = perimeter*height
= 2(40+15)*h
= 110*h
Area = 7500/5 = 1500
1500 = 110h
h = 13.63
Hence[2]

73. Area = 1/2(sum of parallel sides * height)
= 1/2 * sum of sides *20
800 = 10*sum of parallel sides
80 = sum of parallel sides
x + (x+10) = 80
x = 35
other side = 45
Hence[1]

74. 450/200
200r = 900
r = 4.5 cm
Hence[4]

75 . density of steel is 1 i.e. iron is 8
weight of iron ball = weight of steel
volume of iron *8 = volume of steel *1
r^3*8 = 512
r^3= 512/8 = 64
r = 4
diameter = 8
Hence[4]

76. sc = 2*22/7*r*h = 2*22/7*5*3 = 30*22/7 cm^2
volume = 22/7*r*r*h = 75*22/7 cm^2
Hence [4]

77. New volume/old volume = (22/7*49*r*r*h)/(22/7*r*r*25*h) = 49/25
If old is 25, new is 49, then increase is 24
increase% = 24/25*100 = 96%
Hence[2]

78. Length of water column = 6000/60
volume of water = 100*10*200 = 2*10^{5}m^3
weight of water = 2*10^5*1000kgs
= 2*10^5 tons
Hence[3]

79. Length of water column = 6000/60 = 100m/min

volume of water = 100*10*200 = 2*10 ^{5}m^3
Weight of water = 2*10^5*1000kgs
= 2*10^5 tons
Hence[3]

80. Total surface area of a cylinder = 2*22/7*r*h+2*22/7*r*r
= 2*22/7*7*10+2*22/7*7*7
= 440+308
= 748
Hence[1]

81. 2*22/7*r*h
= 2*22/7*2*20
= 80*22/7
Hence[2]

82. r+h = 40
2*22/7*r*r+2*22/7*r*h = 2*22/7*r(r+h)
2*22/7*r(r+h) = 1760
r = 7
h = 33
volume = 22/7*r*r*h = 22/7*7*7*33 = 5082 m^3
Hence[3]

83. Let 3r,4r be the radii
Let 2h, 3h be the height.
Ratio of volumes = 1/2
Hence [1]

84. Let heights = h,2h
Let radii be r and R
22/7*r*r*h = 2*22/7*R*R*h
r*r = 2(R*R)
r/R = sqrt(2)/1
Hence[3]

85. Let correct time be x.
distance travelled in (x+10) min. at 20km/hr
Distance travelled in (x+2) at 30km/hr
(x+10)*20/60 = (x+2))*30/60
x = 14 min.
Hence [3]

86. x/20-x/40 = 6
2x-x/40 = 6x = 240km
Hence[2]

87. Let speed be x.
360/x - 360/(x+20) = 3
360(x+20)-360x = 3x(x+20)
(x+60)(x-40)
x = 40
Hence [1]

88. Suppose the first distance is covered in x hours and 2nd distance in y hours.
4x+6y = 30

6x+4y = 32
Solving equations,
x = 3.6 hrs.,y = 2.6 hrs.
Total time = 6.2 hrs.
Hence[2]

89. Distance covered by thief in 1hr. is 20km.
Now 10 km will be compensated in 1 hr.,
20 km will be compensated in 2 hrs.
So, he overtakes the thief at 4p.m.
Hence[3]

90. 1/2:1/3 = 3:2
If y takes 2 min., x takes 3 mins.
If y takes 24 min, x takes 24*3/2 = 36 min.
Hence[4]

91. -19,-17, -13,-11,-7

92. +1,-3

93. *2.5, *3.5, *4.5, *5.5, *6.5

94. +7,*7

95. Area of circle = 22/7*r*r = 22/7*21*21 = 1386
Area of triangle = 1/2 b*h

96. Pens   Books
    20   40
          30
     10   10
If the number of Pens and books are interchanged the same amount will be spent since the ratio of pens to books is 1:1 the . Hence[2]

97.+88, -143

98. 7695/855=9, 69255/7695=9, ...5609655/623295=9

99. Weight of jar = w_1g
Weight of liquid = w_2-w
Weight of liquid(half filled with liquid) = w_2-w_1
Weight of liquid filled = $2(w_2-w_1)$
Weight of jar + weight of liquid = $w_1+2(w_2-w_1)$
= $2w_2-w_1$
Hence [3]

100. In finding average speed, we use Harmonic mean.
H.M.= 1/{1/3[1/x+1/2x+1/3x]}= 18x/11 km/hr.
Hence[4]

101. Draw XE to YZ
By pythagoras theorem,
$(XE)^2= (XY)^2-(YE)^2= (15)^2-(9)^2 =144$
Let AB = CD = x.
AD/XE = AY/EY

x = 71/5
x^2 = 51.84
Hence [3]

102. Total money deposited = Rs.12*150 = Rs.1800
Interest on Rs.150 for 12 months = 150*12/12*6*1/100 = 9
Interest on Rs.150 for 11 months = 150*11/12*6*1/100 = 33/4
Interest on Rs.150 for 1 month = 150*1/12*6*1/100 = 3/4
Total interest = 9/1+33/4+3/4 = Rs.18
Total amount due = 1800+18 = Rs.1818
Hence [3]

103. Volume of core = 22/7*10/4*10/4*4cm^3
Volume of core with paper = 22/7*d/4*d/4*4cm^3
Volume of paper alone = 22/7[d^2/16-10^2/16]*4cm^2
= 22/7*[d^2-100/4]cm^3
Also, volume of paper = 22/7*100*100*4*0.1/10cm^3
= 100*22/7*400*0.1/10cm^3
= 400cm^3
400*22/7 = 22/7(d^2-100)/4
d^2 = sqrt(1700) = 41.2(approx)
Hence[1]

104. Total are = 4 area(triangleOAB)
= 4*1/2*10*1.5 = 30cm^2
Hence[1]

105. floor space required = 100m^2
Air space required = 100*5.5m^3 = 550m^3
Height = 550/100 = 5.5m
Hence[1]

106. 64+64x^2 = 64(1+x^2)
25+25x^2 = 25(1+x^2)
sqrt(64+64x^2)-sqrt(25+25x^2) = 8sqrt(1+x^2)-5sqrt(1+x^2)
= 3sqrt(1.x^2)
Hence [1]

107. Measure of arc XYZ = XOY
= 2(XDY)
=2(XYP)
=2*50° = 100°
Hence [1]

108. Let the two no.s be x and y.
(x^2/y^3)/(x^3/y^2) = 1/20
x^2/y^3*y^2/x^3 = 1/20
1/xy = 1/20
We cannot find x:y
Hence[4]

109. 1st investment = An investment of Rs.150 fetches a dividend of Rs.5.50
Rate = 5.50/150*100 = 36.67%(approx)

2nd investment = An investment of Rs.15 fetches a dividend of Rs.0.35
Rate = 0.35/15*100 = 86.37%(approx)
Hence[1]

110. If a+b+c = 0, then $a^3+b^3+c^3$ = 3abc
Putting x-y = a,y-z = b, x-z = c
Then a+b+c = 0
The factors are 3(x-y)(y-z)(x-z)
Hence[1]

111. A.

112. C.

113. A. No of companies across different types of employee relations in 10 – 50 lacs category is 65
Total profits generated by then is 13.00
Average profit = 13.0 / 65 * 10^7
= 130 / 65 * 10^6 = 20 lacs.

114. b. Avg profit of JDM com = 80 lacs
no. of cos = 10
Therefore Total profit = 800 lacs
Avg profit of Limited cons. Type firms = 90 lacs
No. of cos = 5
Total profit = 450 lacs
Therefore JDM cos are > by 800 – 450 = 350 lacs = 3.5 crores.

115.d. Avg profit of no share in mgmt types = 280 lacs
total profits = 280 * 5 = 1400 lacs.
Total no of cos in full consultations types = 7
Therefore Avg profit to be made = 1400 / 7 = 200 lacs.
(note it is a >- greater than or equal to sign for cust category or profits.)

116. b. The most number of companies are under this type of employee relations.

117.a.

118.d. In case of joint decision making from 50 – 100 lacs (10 cos) to 100 – 150 lacs (40 cos).

119. c. Joint decision making / Full consultation = 40 / 20 = Limited consultation / No share in mgmt
= 8 / 4.
= No share in mgmt / full employee control = 4/2 = 2.

120. b. As seen above No share mgmt occurs in numerator in one case and in denominator in another.

121. Statement (2) alone is sufficient because 5 years ago his age should have been 11.
(1 +1 = 2). **Hence[2]**

122. From statement I
Average speed = 2 uv /u + v
= 2 * 20 * 15 / 20 + 15
Hence[1]

123. From statement (2) we get R. **Hence[2]**

124. Both the statements are not sufficient.**Hence[5]**

125. Since p q both are less than 1. **Hence[1]**

126. Both the statements do not give S.P.**Hence[5]**

127. R = 180 - 100 = 80 ^{0}
Q = 40^0
Hence[1]

128. Both are insufficient. **Hence[5]**

129. From both the statement, we arrive at-- A is to the North West of B.**Hence[3]**

130. Both are required.**Hence[3]**

131. Both the statements together give point P in the first or the second Quadrant.**Hence[5]**

132. Statement 2 alone is sufficient as the tangent PQ is perpendicular to QR.**Hence[2]**

133. From statement 1 --> (a)^4 = a ^{4}
From statement 2--> a ^{6} = 2^6a = 6
Hence[2]

134. From statement 1 2
z = 1 /2 y
200 = 1 /2 y
y = 400
x = y = 400
Hence[3]

135. From statement 1-- Satish is older than Ganesh
From statement 2 -- no conclusion can be drawn
Hence[1]

136. From statement 1 -- area = 30
Therefore each side = 30 / 4
From statement 2 -- length of diagonal is given. Both the statements by
themselves satisfy the conditions. **Hence[4]**

137. From statement 1 -- 2 (22 /7)r = 10 (22 / 7)r = 5
2(22 / 7)r : (22 / 7) r^2
1:4
Hence[4]

138. We can derive the answer by combining both the statements.**Hence[3]**

139. From statement 1 -- we get the triangle PQR
From statement 2 -- we go the length
Hence[3]

140. From both the statements a simultaneous equation can be formed.**Hence[3]**

141. From statement 1-- y ^{2} = xz
y= sqrt xz
From statement 2 -- y =sqrt x^2

y= x
but we cannot determine the value.
Hence[5]

142. From statement 1 -- we do not have the rate at which it emplies.
From statement 2-- we do not have the rate at which it fills.
Hence[3]

143. Since we do not know whether interest is simple or compound, we cannot calculate the ratio.**Hence[5]**

144. From statement 1 2 we get the speed of A.**Hence[3]**

145. Total surface area of a cylinder = 2 (22 /7) rh + 2 (22 /7)r 2
From both the statements we get the values of r h.
Hence[3]

146. From statement I we do not know the distance
From statement II speed of both the trains is equal. Hence Rajdhani will take 1 1/2 hours.
Statement 2 alone is sufficient.
Hence[2]

147. From statement II we get the cost. Hence II is sufficient.**Hence[2]**

148. Statement II alone does not give the principal. Hence combining both statement we get the rate of S.I. **Hence[3]**

149. From statement I we get the quantity not the cost. Hence both the statements are required.**Hence[3]**

150. From statement I we can find the time required by A B. **Hence[1]**

Passage- 1

151. a
152. b
153. d
154. d
155. b

Passage- 2

156. c
157. a
158. c
159. c
160. c

161[3] 162[4] 163[4] 164[3] 165[4] 166[4] 167[4] 168[1] 169[4] 170[1]

171[3] 172[2] 173[1] 174[4] 175[1] 176[4] 177[2] 178[4] 179[3] 180[2]

181[3] 182[2] 183[1] 184[1] 185[4]