B

19023 **120 MINUTES**

1. Cumulative frequency curve can be used to determine
   A) median B) deciles C) percentiles D) All the above

2. Let $\bar{x}$ be the arithmetic mean of $x_1, x_2, \ldots x_n$ with frequencies $f_1, f_2, \ldots f_n$. A number c is added to all x_i's, then the arithmetic mean of the resulting frequency distribution is
   A) $\bar{x}$ B) $\bar{x}$ +c C) $\bar{x}$ −c D) $c\bar{x}$

3. For a symmetric or nearly symmetric distribution, which of the following is the relation between mean deviation (MD) and the standard deviation (SD)?
   A) MD=2/3 SD B) SD=2/3 MD
   C) MD=4/5 SD D) SD=4/5 MD

4. The first quartile, the median and the third quartile of a distribution are respectively 58, 63 and 68. Which of the following is true?
   A) the distribution is symmetric
   B) the distribution is positively skewed
   C) the distribution is negatively skewed
   D) none of the above

5. If all the plotted points in a scatter diagram lie on a single line, then the correlation is
   A) perfect and positive B) perfect and negative
   C) neither A nor B D) either A or B

6. Given the following bivariate data:

Variable	X	Y
Mean	80	98
Variance	4	9

   The correlation coefficient between X and Y is 0.6. What is the most likely value of Y when X is 90?

   A) 90 B) 104 C) 107 D) 113.5

7. A sample of 99 distances has a mean of 24 feet and a median of 24.5 feet. Unfortunately, it has been discovered that an observation which was erroneously recorded as "30" actually had a value of "35". If we make this correction to the data, then:
   A) the mean and median remain the same
   B) the mean and median are both increased
   C) the mean remains the same, but the median is increased
   D) the median remains the same, but the mean is increased

8. Which of the following is FALSE?
   A) The numbers 5, 5, 5 have a standard deviation of 0
   B) The numbers 5, 6, 7 have the same standard deviation as 105, 106,107
   C) The numbers 1, 5, 9 have a smaller standard deviation than 1001, 1005, 1009
   D) The standard deviation can only be computed for interval or ratio scaled data

9. A box contains 16 balls, 10 of which are white balls, 4 are red balls and 2 are black balls. Two balls are chosen at random without replacement, then the probability that neither of them are black is
   A) 7/8 B) 5/8 C) 91/120 D) 1/8

10. For two events A and B, P(A) = 1/2, P(B) =1/3 and P(A or B) =2/3, then P(A and B) is
   A) 1/4 B) 1/6 C) 2/5 D) 1/3

11. The study of blood in health and diseases is called
   A) Cardiology B) Cytology
   C) Hematology D) Physiology

12. Te first Nation which granted all women the right to vote:
   A) U K B) U S A C) New Zealand D) France

13. Which of the following is the first fully solar powered airport in the world?
   A) Cochin International Airport
   B) Indira Gandhi International Airport
   C) Mangalore International Airport
   D) Trivandrum International Airport

14. The autobiographical service story *Katha Ithuvare* is the work of
   A) Malayattoor Ramakrishnan B) Adoor Gopalakrishnan
   C) D Babupaul D) I M Vijayan

15. Which of the following is India's national motto?
   A) Tatvamasi B) Satyameva jayate
   C) Aham Brahmasmi D) Vasudhaiva Kudumbakam

16. Which of the following State is the first to achieve 100% online electoral enrolment?
   A) Kerala B) Tamil Nadu C) Karnataka D) Maharashtra

17. To which of the following is the WiMAX related?
   A) Ecology B) Space technology
   C) Missile Technology D) Communication Technology

18. Which of the following chemicals is responsible for depletion of Ozone layer in the atmosphere?
   A) Nitrous Oxide B) Sulphur dioxide
   C) Carbon dioxide D) Chlorofluorocarbon

19. The term 'bout' in sports refers to an organized contest in
   A) Football B) Boxing C) Cricket D) Chess

20. In which year did the Right to Information Act come into force?
A) 2004 B) 2005 C) 2006 D) 2007

21. The Government adopted measures to ------ hundreds of people who became homeless.
A) renovate B) rehabilitate C) revamp D) rejuvenate

22. Ramesh and Satish ---------each other for a very long time.
A) is known B) knew C) know D) have known

23. Which of the following words is wrongly spelt?
A) Algorithm B) Linnux C) Debugger D) Encryption

24. Many of the rare animals in the world are under the threat of --------.
A) extortion B) extradition C) extraction D) extinction

25. Ratish -------- phoning all the time.
A) keeps on B) keeps out C) makes up D) makes out

26. If you ------- for my assistance, I could help you.
A) request B) have requested
C) requested D) had requested

27. Spot the error, if any, in the following sentence:
When the doctor/ reached the house,/ the patient died.
1 2 3
A) 1 B) 2 C) 3 D) No error

28. Peter relies ----- his uncle for financial support.
A) for B) of C) by D) on

29. Which of the following options arranges the following words in a correct sequence?
expect / you/ what/ not/ I/ this/ from/ is
1 2 3 4 5 6 7 8
A) 2, 1, 4, 7, 5, 8, 6, 3 B) 2, 1, 3, 4, 6, 7, 5, 8
C) 6, 8, 4, 3, 5, 1, 7, 2 D) 6, 8, 4, 3, 2, 1, 7, 5

30. You fared well in the examination, -----?
A) didn't you B) did you C) aren't you D) won't you

31. Which was the first antivirus program?
A) Brain B) Reaper C) Archie D) Spyware

32. First Cyber law in India
A) IT Act, 2000 B) Cyber Law 9
C) Computer Misuse Act 1990 D) Cyber Security Law 2003

33. Which is the first software park in Asia?
A) Hytech city, Andhrapradesh
B) Rajiv Gandhi Infotech Park, Maharashtra
C) Technopark, Trivandrum, Kerala
D) Cyber Park, Karnataka

34. Acts of cyber terrorism
A) Section 67 A
B) Section 66 F
C) Section 65
D) Section 67 B

35. The authority which gives order for blocking websites
A) CERT-In
B) National Security Agency
C) Central Intelligence Agency
D) National Cyber Security Division

36. Father of Wikipedia:
A) Ray Tomlinson
B) Tim Berners-Lee
C) Jimmy Wales
D) Vinton Cerf

37. Which of the following is not a mobile operating system?
A) Bada B) ios C) Symbian D) Ubundu

38. Which is the latest version of Android?
A) KitKat B) Oreo C) Pie D) Nougat

39. Which of the following is not an input device?
A) Scanner B) Plotter C) Data Glove D) Light Pen

40. Who is the author of the book "Passages from the Life of a Philosopher"?
A) Alan Turing
B) Charles Babbage
C) Bill Gates
D) N. R. Narayana Murthy

41. The protocol used in Internet
A) W3C B) UDP C) URL D) TCP/IP

42. The software which allows you to surf Internet page:
A) Surfer
B) Browser
C) HTTP
D) None of the above

43. One Kilo Byte is
A) 1000 Byte B) 1012 Byte C) 1024 Byte D) 100 Byte

44. Binary equivalent of decimal number 25 is
A) 11101 B) 11001 C) 10011 D) 11111

45. 2's Complement of 10000_2 is
A) 10000 B) 01111 C) 11000 D) 01000

46. The science and art of transferring messages to make them secure and immune to attacks
A) Cryptography
B) Cryptanalysis
C) Cryptology
D) None of the above

47. ARPANET stands for
A) American Research Project Agency Network
B) Asian Research Project Agency Network
C) Ad-hoc Research Project Agency Network
D) Advanced Research Project Agency Network

48. Program designed to perform specific task is known as
A) System software B) Application software
C) Utility software D) Operating System

49. Light weight process is called
A) Thread B) Process
C) Fork D) Micro process

50. NTFS stands for
A) New Type File System
B) Novel Technology File System
C) New Technology File System
D) New Technology File Service

51. If the sum of four numbers in an arithmetic sequence is 34 and the third number is 10, then which of the following is the last number?
A) 11 B) 12 C) 13 D) 14

52. If the sum of n terms of an arithmetic sequence is $n^2 + 2n$, then the n^{th} term of the sequence is:
A) n B) $2n$ C) $2n - 1$ D) $2n + 1$

53. How many arrangements of the letters of the word BALLOON taken all at a time are possible?
A) 5040 B) 2520 C) 1260 D) 720

54. The expansion of $(1 + x)^{-1}$ as an infinite series is valid for
A) $|x| < 1$ B) $|x| > 1$ C) $-1 \leq x \leq 1$ D) $0 < |x| < 1$

55. The curves $y = e^x$ and $y = e^{-x}$
A) do not intersect B) intersect at (0, 1)
C) intersect at (1, 0) D) intersect at (0, 0)

56. If $f: R \to R$ defined by $f(x) = 3x - 4$ is invertible, then
A) $f^{-1}(x) = \frac{x+4}{3}$ B) $f^{-1}(x) = \frac{x+3}{4}$
C) $f^{-1}(x) = \frac{x-4}{3}$ D) $f^{-1}(x) = \frac{x-3}{4}$

57. The locus represented by $|z - 2| + |z + 2| = 3$ in the Argand plane is
A) the right bisector of the segment joining (-2, 0) and (2, 0)
B) the circle $x^2 + y^2 + 4x + 4y = 9$
C) an ellipse with foci at $(-2, 0)$ and (2, 0)
D) a hyperbola with foci at $(-2, 0)$ and (2, 0)

58. What is the area of the triangle in the complex plane with vertices at z, iz and $z + iz$?

A) $|z|$ B) $|z|^2$ C) $(\frac{1}{2})|z|$ D) $(\frac{1}{2})|z|^2$

59. The value of $\sin^{-1}\left(sin\frac{3\pi}{5}\right)$ is

A) 0 B) $\frac{\pi}{5}$ C) $\frac{2\pi}{5}$ D) $\frac{3\pi}{5}$

60. A card is drawn from a well-shuffled pack of cards. What is the probability that it is a black jack or a red king?

A) $\frac{1}{13}$ B) $\frac{2}{13}$ C) $\frac{1}{26}$ D) $\frac{1}{52}$

61. Two fair dice are thrown together. What is the probability that the sum of the outcomes is a multiple of 6?

A) $\frac{1}{36}$ B) $\frac{1}{18}$ C) $\frac{1}{12}$ D) $\frac{1}{6}$

62. If $(x\ y)\begin{pmatrix}2 & 3\\ 0 & 1\end{pmatrix} = (6\ 10)$, then

A) $x = 1, y = 3$ B) $x = 3, y = 1$
C) $x = 3, y = 2$ D) $x = 2, y = 3$

63. What is the solution of the inequality $\frac{3x-4}{2} \geq \frac{x+1}{4} - 1$?

A) $x \leq 1$ B) $x \geq 1$ C) $x > 1$ D) $x < 1$

64. The expression $\frac{\cos 7x + \cos 5x}{\sin 7x - \sin 5x}$ simplifies to

A) $\cot 7x$ B) $\cot 5x$ C) $\cot x$ D) tan x

65. The equation $\cos x = \frac{1}{2}$ has solution

A) $x = n\pi \pm \frac{\pi}{6}, n \in Z$ B) $x = n\pi \pm \frac{\pi}{3}, n \in Z$

C) $x = 2n\pi \pm \frac{\pi}{6}, n \in Z$ D) $x = 2n\pi \pm \frac{\pi}{3}, n \in Z$

66. The equation of the circle with centre at $(-2, -2)$ and touching both the axes is given by

A) $x^2 + y^2 + 4x + 4y + 4 = 0$
B) $x^2 + y^2 - 4x - y - 4 = 0$
C) $x^2 + y^2 - 4x - 4y + 4 = 0$
D) $x^2 + y^2 + 4x + 4y - 4 = 0$

67. The circumcentre of the triangle with vertices at $(0, 0), (3, 0)$ and $(0, 4)$ is at

A) $(0, 0)$ B) $(3, 0)$ C) $\left(2, \frac{3}{2}\right)$ D) $\left(\frac{3}{2}, 2\right)$

68. The point at which the tangent to the curve $y = \sqrt{x^2 - 4}$ is parallel to the chord joining the points $(2,\ 0)$ and $(4,\ 2\sqrt{3})$ is

A) $(\sqrt{2},\ \sqrt{6})$ B) $(\sqrt{6},\ \sqrt{2})$ C) $(\sqrt{2},\ \sqrt{3})$ D) $(\sqrt{3},\ \sqrt{2})$

69. $\int e^x \left(\frac{1}{x} - \frac{1}{x^2}\right) dx$ equals

A) $\frac{e^x}{x} + C$ B) $\frac{e^x}{x^2} + C$

C) $e^x \left(\frac{1}{x} - \frac{1}{x^2}\right) + C$ D) $e^x \log x + C$

70. The lines $\frac{x-1}{3} = \frac{y-1}{-1} = \frac{z+1}{0}$ and $\frac{x-4}{2} = \frac{y+0}{0} = \frac{z+1}{3}$

A) intersect B) do not intersect
C) intersect at (1, 1, -1) D) intersect at (4, 0, 4)

71. The equation of the ellipse with foci at $(\pm 3, 0)$ and vertices at $(\pm 5, 0)$ is

A) $\frac{x^2}{25} + \frac{y^2}{9} = 1$ B) $\frac{x^2}{9} + \frac{y^2}{25} = 1$ C) $\frac{x^2}{25} + \frac{y^2}{16} = 1$ D) $\frac{x^2}{16} + \frac{y^2}{25} = 1$

72. The order and degree of the differential equation $\left\{1 + \left(\frac{dy}{dx}\right)^2\right\}^{\frac{3}{2}} = \frac{d^2y}{dx^2}$ are given by

A) order : 2 and degree : 3 B) order : 3 and degree : 2
C) order : 2 and degree : 2 D) order : 1 and degree : 1

73. The value of λ for which the vectors $3\vec{\imath} + 2\vec{\jmath} + 9\vec{k}$ and $\vec{\imath} + \lambda\vec{\jmath} + 3\vec{k}$ are mutually perpendicular is

A) 12 B) -12 C) 15 D) -15

74. The vectors $2\vec{\imath} - \vec{\jmath} + \vec{k}$, $\vec{\imath} - 3\vec{\jmath} - 5\vec{k}$ and $3\vec{\imath} - 4\vec{\jmath} - 4\vec{k}$ form the sides of

A) an isosceles triangle B) a right triangle
C) an equilateral triangle D) an isosceles right triangle

75. The minimum value of the function $f(x) = \tan x + \cot x$ in the interval $(0, \frac{\pi}{2})$ is

A) 0 B) $\frac{1}{2}$ C) 1 D) 2

76. The volume of the parallel piped with conterminal edges $\vec{a} = 11\vec{\imath}$, $\vec{b} = 2\vec{\jmath}$, $\vec{c} = 13\vec{k}$ is

A) 284 cubic units B) 285 cubic units
C) 286 cubic units D) 287 cubic units

77. For $\vec{F}(x,y,z) = x^2\vec{i} - 2\vec{j} + yzk$, what are the values of div$\vec{F}$ and curl$\vec{F}$?

A) $\text{div}\,\vec{F} = 2x + y;\ curl\vec{F} = z\vec{i}$

B) $\text{div}\,\vec{F} = 0;\ curl\vec{F} = 0$

C) $\text{div}\,\vec{F} = 0;\ curl\vec{F} = z\vec{i}$

D) $\text{div}\,\vec{F} = 2x + y;\ curl\vec{F} = 0$

78. $\int_c 2xydx + (x^2 + y^2)dy$ evaluated along the circular arc C given by $x = \cos t,\ y = \sin t,\ 0 \le t \le \frac{\pi}{2}$, has value

A) $\frac{1}{2}$ B) $-\frac{1}{2}$ C) $\frac{1}{3}$ D) $-\frac{1}{3}$

79. If $A = \begin{pmatrix} 2 & 3 \\ 1 & 0 \end{pmatrix} = P + Q$ where P is symmetric and Q is skew symmetric, then P is

A) $\begin{pmatrix} 2 & 2 \\ 2 & 0 \end{pmatrix}$ B) $\begin{pmatrix} 2 & 0 \\ 0 & 2 \end{pmatrix}$ C) $\begin{pmatrix} 3 & 0 \\ 0 & 3 \end{pmatrix}$ D) $\begin{pmatrix} 0 & 2 \\ 2 & 0 \end{pmatrix}$

80. The matrix $A = \begin{pmatrix} 3 & 1 & 2 & 0 \\ 1 & 0 & -1 & 0 \\ 2 & 1 & 3 & 0 \end{pmatrix}$ has rank

A) 1 B) 2 C) 3 D) 4

81. How many solutions does the following system of equations possess?

$$\begin{aligned} x + y + z &= 6 \\ 2x + y + 2z &= 10 \\ x + y + 3z &= 12 \end{aligned}$$

A) no solution B) a unique solution

C) infinitely many solutions D) cannot be ascertained

82. If α, β and γ are the roots of the equation $x^3 + px + q = 0$, then $\begin{vmatrix} \alpha & \beta & \gamma \\ \beta & \gamma & \alpha \\ \gamma & \alpha & \beta \end{vmatrix}$ equals

A) p^3 B) $p^3 - 3q$ C) $-p^3$ D) 0

83. If A is a square matrix such that $3A^3 + 2A^2 + 5A + I = 0$, then A^{-1} equals

A) $3A^2 - 2A - 5I$ B) $3A^2 + 2A - 5I$

C) $-3A^2 - 2A - 5I$ D) $3A^2 + 2A + 5I$

84. $\lim_{x \to \frac{\pi}{2}} \frac{1 - \sin x}{\cos^2 x}$ equals

A) 0 B) $\frac{1}{2}$ C) $-\frac{1}{2}$ D) 1

85. For what values of x is the function $f: R \to R$ defines by $f(x) = [x]$, where $[x]$ denotes the greatest integer less than or equal to x continuous?

A) all integral values of x B) all non-integral values of x

C) all rational values of x D) $x = 0$ only

86. If $u = x^2 \sin\left(\frac{y}{x}\right)$, then $\frac{\partial^2 u}{\partial x \partial y}$ equals

A) $\frac{y}{x}\sin\left(\frac{y}{x}\right) + cos\left(\frac{y}{x}\right)$ B) $\sin\left(\frac{y}{x}\right) + \frac{y}{x}\cos\left(\frac{y}{x}\right)$

C) $\frac{y}{x}\sin\left(\frac{y}{x}\right) - cos\left(\frac{y}{x}\right)$ D) $\frac{y}{x}\sin\left(\frac{y}{x}\right) + \frac{y}{x}cos\left(\frac{y}{x}\right)$

87. Let $s_A = 15t^2 + 10t + 20$ and $s_B = 5t^2 + 40t$, $t > 0$ be the position functions of two cars A and B moving along parallel straight lanes of a highway. At what instant of time do they have the same velocity?

A) $t = 6$ B) $t = 5$ C) $t = 4$ D) $t = 3$

88. The length of the subtangent to the ellipse $x = a\cos t, y = b\sin t$ at $t = \frac{\pi}{4}$ is

A) a B) b C) $\sqrt{2}\,a$ D) $\frac{a}{\sqrt{2}}$

89. What is the value of $\int e^x \tan(e^x)\,dx$

A) $\sec e^x + C$ B) $\log(sin\, e^x) + C$

C) $\log(sec\, e^x) + C$ D) $\sec^2 e^x + C$

90. The area enclosed by the parabola $y^x = 4x$, its latus rectum and the x-axis is

A) $\frac{4}{3}$ square units B) $\frac{3}{4}$ square units

C) $\frac{\sqrt{3}}{4}$ square units D) $\frac{2}{\sqrt{3}}$ square units

91. The value of $\int_{-2}^{2} |1 - x|\,dx$ is

A) 0 B) 3 C) 4 D) 5

92. On changing the order of integration, the double integral

$\int_0^4 \int_{\sqrt{x}}^4 \cos y^3\,dydx$ becomes

A) $\int_0^4 \int_{\sqrt{y}}^4 \cos y^3\,dxdy$ B) $\int_0^4 \int_0^y \cos y^3\,dxdy$

C) $\int_0^4 \int_0^{y^2} \cos y^3\,dxdy$ D) $\int_0^4 \int_0^{\sqrt{y}} \cos y^3\,dxdy$

93. The equations of the tangents to the ellipse $x^2 + 2y^2 = 2$ from the point $(-1, 1)$ are

A) $x = 1, y = 1$ B) $y = 1, y = 2x + 3$

C) $x = 1, y = 2x + 3$ D) $y = -1, y = 2x + 3$

94. If the tangents at $(at_1^2, 2at_1)$ and $(at_2^2, 2at_2)$ on the parabola $y^2 = 4ax$ intersect at right angles, then

A) $t_1 + t_2 = 0$ B) $t_1 t_2 = 0$ C) $t_1 t_2 = 1$ D) $t_1 t_2 = -1$

95. The equation of the sphere passing through the points $(0,0,0), (a,0,0), (0,b,0)$ and $(0,0,c)$ is given by

A) $x^2 + y^2 + z^2 + ax + by + cz = 0$
B) $x^2 + y^2 + z^2 - ax - by - cz = 0$
C) $x^2 + y^2 + z^2 + 2ax + 2by + 2cz = 0$
D) $x^2 + y^2 + z^2 - 2ax - 2by - 2cz = 0$

96. The equation of the plane through the point $(1,2,2)$ and perpendicular to the planes $2x - y + z + 3 = 0$ and $x - 2y + 5z + 3 = 0$ is

A) $x + 3y + z - 9 = 0$ B) $3x + y + z - 9 = 0$
C) $x + y + 3z - 9 = 0$ D) $x + y + z - 9 = 0$

97. The integrating factor of the differential equation $(x + y)\frac{dy}{dx} = 1$ is given by

A) e^{-x} B) e^{-y} C) $\frac{1}{x}$ D) $\frac{1}{y}$

98. What is the solution of the differential equation $(e^x + 1)y\,dy = (y + 1)e^x dx$?

A) $(1 + y)(1 + e^x) = Ce^y$ B) $(1 + x)(1 + e^x) = Ce^y$

C) $(1 + x)e^x = Ce^y$ D) $(1 + y)e^x = Ce^y$

99. If six boys and six girls are seated in a row at random what is the probability that the boys and girls sit alternately?

A) $\frac{1}{231}$ B) $\frac{2}{231}$ C) $\frac{1}{462}$ D) $\frac{5}{462}$

100. There are four letters and four addressed envelopes. The letters are placed in the envelopes at random. What is the probability that not all letters go to the correct envelopes?

A) $\frac{1}{24}$ B) $\frac{5}{24}$ C) $\frac{13}{24}$ D) $\frac{23}{24}$

101. The least common multiple of two numbers is 104 and highest common factor of them is 26. If the difference between the numbers is 78, what is the sum of the numbers?

A) 130 B) 98 C) 128 D) 120

102. The ratio of two numbers is 3:2 and the sum of their squares is 117. The difference of numbers is:

A) 3 B) 4 C) 5 D) 6

103. A and B started a business with a total investment of ₹15000. They got a profit of ₹ 2000 at the end of the year. The profit share of A was ₹ 1400. What did A invest?

A) ₹12000 B) ₹10500 C) ₹9500 D) ₹8000

104. A man spends 30% of his salary on house rent, 30% of the rest for children's education and 24% of the total salary for other household expenditure. After his expenditure, he saves ₹ 2500. What is his salary?
A) ₹10000 B) ₹11500 C) ₹15000 D) ₹16500

105. One year ago, the ratio of ages of A and B was 2: 3. After five years from now, this ratio will become 4: 5. How old is A now?
A) 6 years B) 7 years C) 10 years D) 12 years

106. A person sold an item for ₹ 144 and he got a percentage of profit equal to the price he bought it. For what price did he buy the item?
A) ₹ 64 B) ₹ 72 C) ₹ 80 D) ₹ 96

107. An amount invested at compound interest doubles in 3 years. In how many years will it become four times the invested amount?
A) 5 years B) 6 years C) 9 years D) 12 years

108. Persons A and B can do a piece of work in 6 days and B alone can do the work in 15 days. In how many days A alone can complete the work?
A) 6 days B) 7.5 days C) 9 days D) 10 days

109. A man goes to his office from his house at a speed of 33 km/hr and returns at a speed of 22 km/hr. If he takes 5 hours in going and coming, what is the distance between his house and office?
A) 33 km B) 44 km C) 55 km D) 66 km

110. A train of 165 meters of length travels at a speed of 60 km/hr. In what time will it pass a man who is walking in the opposite direction at a speed of 6 km/hr?
A) 6 seconds B) $7\frac{1}{3}$ seconds C) 9 seconds D) 11 seconds

111. The number given in the bracket has a relation with numbers outside the bracket. What is the missing number?
38 (1924) 96
72 (3617) 68
50 (?) 56
A) 1500 B) 2514 C) 4916 D) 1516

112. A cuboid has six sides of different colours. The red side is opposite to black. The blue side is adjacent to white. The brown side is adjacent to blue. The red side is face down. Which one of the following would be opposite to brown?
A) White B) Blue C) Red D) Black

113. Which number comes next in the series 16, 42, 81, 133, 198, -----
A) 236 B) 248 C) 260 D) 276

114. If today is Monday, after 343 days, it will be
A) Monday B) Tuesday C) Wednesday D) Thursday

115. A person facing north-west. He turns 90° in the clockwise direction, then 180° in the anticlockwise direction and then another 90° in the same direction. Which direction is he facing now?

A) South east B) South west C) East D) South

116. In a class of 90, where girls are twice that of boys, Satheesh is ranked fourteenth from the top. If there are 10 girls ahead of Satheesh, how many boys are after him in rank?

A) 23 B) 26 C) 25 D) 22

117. At 3.40, the hour hand and the minute hand of a clock form an angle of

A) 110° B) 120° C) 130° D) 140°

118. Find the next in the series: WXCD, UVEF, STGH, QRIJ, ------

A) AYBZ B) JIRQ C) LRMS D) OPKL

119. A motor boat can go 360 km upstream in 6 hours while it can go downstream the same distance in 5 hours. What will be the speed of the boat in still water?

A) 60 km/hr B) 66 km/hr C) 68 km/hr D) 72 km/hr

120. In the following two pairs of words one word is missing. Find the word from the choices by identifying the relationship from the other pair.

Seed : Plant
Inference : ?

A) Premise B) Slander C) Conclusion D) Reaction