MCA Entrance Paper – GGSIPU – 2010

MATHEMATICS

1. The volume of the tetrahedron whose vertices are (2,1,1), (1, -1, 2), (0,1,-1) and (1, -2, 1) is
   (a) 1/3 (b) 1
   (c) 5/3 (d) None of these
2. A man observes that at a point due south of a certain tower, its angle of elevation is 60°; he then walks 60 meters due west on a horizontal plane and observes that the angle of elevation is 30°. the height of the tower in meters in nearly
   (a) 36.74 (b) 35.74
   (c) 33.74 (d) 37.74
3. The roots of the equation $4x^2-2\sqrt{5x}+1=0$ are
   (a) $\sin 18^0, \sin 36^0$ (b) $\sin 18^0, \cos 18^0$
   (c) $\sin 18^0, \cos 36^0$ (d) $\cos 18^0, \cos 36^0$
4. The area of the triangle ABC when $a=\sqrt{2}$, $b=\sqrt{3}$ and $c=\sqrt{3}$ is
   (a) $\frac{\sqrt{7}}{2}$ (b) $\frac{\sqrt{6}}{2}$
   (c) $\sqrt{2}$ (d) $\frac{\sqrt{5}}{2}$
5. A village is in the form of the triangle ABC. The point A is a mile due east of the village school, B is a mile north of the school while C can be reached by walking due west for a mile and then turning down a footpath due south for a mile. The school, with reference to ΔABC, is at the
   (a) Incenter (b) Circumcentre
   (c) Centroid (d) None of these
6. $\log_{1/4}\left(\log_2^3 . \log_3^4\right)$ is equal to.....
   (a) 2 (b) -1/2
   (c) 1/2 (d) -2
7. If $|z|=1$ and $Z\neq\pm1$, then all the values of $\frac{Z}{1-Z^2}$ lie on
   (a) A line not passing through the origin
   (b) $|Z|=\sqrt{2}$
   (c) The real axis
   (d) The imaginary axis
8. If $\sin^x\alpha+\cos^x\alpha\geq 1, 0<\alpha<\frac{\pi}{2}$, then
   (a) $x\in(-\infty,2)$ (b) $x\in[2,\infty)$
   (c) $x\in[-1,1)$ (d) None of these
9. If one root of the quadratic equation $ax^2+bx+c=0$ is equal to nth power of the other root then the value of $\left(ac^n\right)^{\frac{1}{n+1}}+\left(a^n c\right)^{\frac{1}{n+1}}$ is equal to
   (a) b (b) $\frac{1}{b^{n+1}}$
   (c) $-\frac{1}{b^{n+1}}$ (d) None of this
10. The complex numbers Z_1, Z_2 and Z_3 satisfying $\left[\frac{Z_1-Z_3}{Z_2-Z_3}\right]=\frac{1-i\sqrt{3}}{2}$ are the vertices of a triangle which is
    (a) Of the area zero
    (b) A right angled triangle
    (c) An equilateral triangle
    (d) An obtuse angled triangle
11. Let $F(\alpha)=\begin{bmatrix}\cos\alpha & -\sin\alpha & 0\\ \sin\alpha & \cos\alpha & 0\\ 0 & 0 & 1\end{bmatrix}$, where α is real, then $\left[F(\alpha)\right]^{-1}$ is equal to
    (a) $F(-\alpha)$ (b) $F(\alpha^{-1})$
    (c) $F(2\alpha)$ (d) None of these
12. A root of the equation $\begin{bmatrix}3-x & -6 & 3\\ -6 & 3-x & 3\\ 3 & 3 & -6-x\end{bmatrix}=0$ is
    (a) 0 (b) 6
    (c) 3 (d) -3
13. The inverse of the function $y=\log_a\left(x+\sqrt{x^2+1}\right), (a>0, a\neq 1)$ is
    (a) $\sin h(ya)$ (b) $\sinh y\ln a$
    (c) $\cos h(ya)$ (d) $\cosh(y\ln a)$
14. $\lim_{n\to\infty}\frac{x^{2n}-1}{x^{2n}+1}$ is equal to
    (a) 1 (b) -1
    (c) 0 (d) None of these
15. The inverse of the function $y=\frac{e^x-e^{-x}}{e^x+e^{-x}}$ is
    (a) $\ln\frac{1+y}{1-y}, |y|<1$ (b) $\frac{1}{2}\ln\frac{1-y}{1+y}, |y|<1$
    (c) $\frac{1}{2}\ln\frac{1+y}{1-y}, |y|<1$ (d) $\ln\frac{1-y}{1+y}, |y|<1$

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16. The values of x satisfying the equality $|(x^2+4x+9)+(2x-3)|=|x^2+4x+9|+|2x-3|$ is
(a) $|x|\le 3/2$ (b) $|x|\ge 3/2$
(c) $x\ge 3/2$ (d) $x\le 3/2$

17. The domain of the function $f(x)=\sin^{-1}\frac{x-3}{2}-\log_{10}(4-x)$ is
(a) $(-\infty,4)$ (b) $[1,4)$
(c) $(-\infty,3)$ (d) None of these

18. If $\sin^{-1}\frac{1}{3}+\sin^{-1}\frac{2}{3}=\sin^{-1}\frac{1}{x}$, the value of x is
(a) $\frac{9}{\sqrt{5}-4\sqrt{2}}$ (b) $\frac{9}{4\sqrt{2}-\sqrt{5}}$
(c) $\frac{9}{\sqrt{5}+4\sqrt{2}}$ (d) None of these

19. The value of $\frac{1}{\sqrt{40}+\sqrt{20}+\sqrt{10}-\sqrt{80}}$ is equal to
(a) $\frac{1}{70}\left(3\sqrt{10}+2\sqrt{5}\right)$ (b) $\frac{3\sqrt{10}+2\sqrt{5}}{50}$
(c) $\frac{3\sqrt{10}-2\sqrt{5}}{70}$ (d) None of these

20. If $\log_{100}|x+y|=\frac{1}{2}$ *and* $\log_{10}y-\log_{10}|x|=\log_{100}4$, then (x,y) is equal to
(a) $\left(\frac{10}{3},\frac{20}{3}\right)or(10,20)$
(b) $\left(-\frac{10}{3},\frac{20}{3}\right)or(10,20)$
(c) $\left(\frac{10}{3},\frac{20}{3}\right)or(-10,20)$
(d) None of these

21. The interior angles of a polygon are in A.P. The Smallest angle is of 120° and the common difference is 5°. The number of sides of the polygon are
(a) 16 (b) 8
(c) 12 (d) 9

22. If for $0<x<\pi/2$,
$\exp\left[\left(\sin^2x+\sin^4x+\sin^6x+...\right)\log_e 2\right]$
satisfies the quadratic equation $x^2-9x+8=0$ then the value of $(\sin x-\cos x)/(\sin x+\cos x)$ is
(a) $2+\sqrt{3}$ (b) $2-\sqrt{3}$
(c) $2+\sqrt{5}$ (d) $\sqrt{5}-2$

23. The value of $(0.16)^{\log_{2.5}\left(\frac{1}{3}+\frac{1}{3^2}+\frac{1}{3^3}+...\infty\right)}$ is
(a) 5 (b) 3
(c) 7 (d) None of these

24. The sum of he series
$\sqrt{3}-1+2\left(2-\sqrt{3}\right)+2\left(3\sqrt{3}-5\right)+....$ is
(a) $\sqrt{3}-1$ (b) $\sqrt{3}+1$
(c) $2-\sqrt{3}$ (d) $2+\sqrt{3}$

25. If a, b, c respectively are the p^{th}, q^{th} and r^{th} terms of an H.P. then $\begin{vmatrix} bc & p & 1 \\ ca & q & 1 \\ ab & r & 1 \end{vmatrix}$ is equal to
(a) $(a+b+c)(p+q+r)$
(b) $(ap+bq+cr)$
(c) $\frac{a}{p}+\frac{b}{q}+\frac{c}{r}$
(d) Zero

26. The condition that the lines
$x\cos\alpha+y\sin\alpha=p$,
$x\cos\beta+y\sin\beta=q$ *and* $y=x\tan\theta$ may be concurrent is
(a) $q\cos(\theta-\beta)=p\cos(\theta-\alpha)$
(b) $q\sin(\theta-\beta)=p\sin(\theta-\alpha)$
(c) $p\cos(\theta-\beta)=q\cos(\theta-\alpha)$
(d) $p\sin(\theta-\beta)=q\sin(\theta-\alpha)$

27. The equation to the straight lines each of which makes an angle α with the line y=x and passes through the origin is
(a) $x^2-xy\sec 2\alpha+y^2=0$
(b) $x^2-2xy\sec 2\alpha+y^2=0$
(c) $x^2+xy\sec 2\alpha+y^2=0$
(d) $x^2+2xy\sec 2\alpha+y^2=0$

28. $\sum_{r=0}^{n}(-1)^r\,{}^nC_r\left(\frac{1}{2^r}+\frac{3^r}{2^{2r}}+\frac{7^r}{2^{3r}}+\frac{15^r}{2^{4r}}+...\infty\right)$ is equal to
(a) $\frac{1}{2^{2n}-1}$ (b) $\frac{1}{2^n-1}$
(c) $\frac{2}{2^{2n}-1}$ (d) $\frac{2}{2^n-1}$

29. The number of integral solution to the system of equations $x_1+x_2+x_3+x_4+x_5=20$ and

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$x_1 + x_2 + x_3 = 5$ when $x_k \le 0$ is

(a) 216 (b) 376
(c) 336 (d) 256

30. The odds that a research monograph will be accepted by three independent referees are 3 to 2, 4 to 3 and 2 to 3 respectively. the probability that at least one of the report will be favorable is

(a) $\frac{153}{175}$ (b) $\frac{152}{175}$
(c) $\frac{159}{175}$ (d) $\frac{157}{155}$

31. If the volume V of a fluid flowing through a small pipe in a unit of time at a fixed pressure is proportional to the fourth power of the pipe's radius r, then a 10% increase in r will result in increase in V which is

(a) 20% (b) 30%
(c) 40% (d) None of these

32. The LPP Max $z = 3x + 9y$, subject to $x + 3y \le 60,\ x + y \ge 10,\ x \le y,\ x, y \ge 0$ has

(a) An infinite number of solution
(b) A unique finite solution
(c) No solution
(d) An unbounded solution

33. The derivative of the function $f(x) = |\ln x|$ at the point x = 1 is

(a) 1 (b) -1
(c) 0 (d) Does not exist

34. The area between the curve $y^2(2a - x) = x^3$ and its asymptote is

(a) $2\pi a^2$ (b) $3\pi a^2$
(c) $5\pi a^2$ (d) None of these

35. The integral $\int \frac{\cos 4x - 1}{\cot x - \tan x} dx$ is equal to

(a) $\frac{1}{2}|\cos 2x| - \frac{1}{4}\cos^2 2x + c$

(b) $-\frac{1}{2}\cos 4x + c$

(c) $\frac{1}{2}\log|\cos 2x| - \frac{1}{4}\cos^2 2x + c$

(d) None of these

36. The rate of decay of radium varies as its amount present at that time. Assuming the 'half-life' of the radium to be 1600 years, the fraction of the amount of radium disintegrated in 200 years will be

(a) $1 - e^{-\frac{1}{6}\ln 2}$ (b) $1 - e^{-\frac{1}{8}\ln 2}$
(c) $1 - e^{-\frac{1}{4}\ln 2}$ (d) None of these

37. The distance from the point $A(1,1,5)$ to the line $\frac{x-1}{1} = \frac{-y+1}{1} = \frac{z}{2}$ is

(a) $5/\sqrt{2}$ (b) $5/\sqrt{3}$
(c) $5/2$ (d) $\sqrt{5}$

ENGLISH

Directions for Question number 38 to 47:
Study the passage given below to answer the questions that follows.

Although he was born in a little village near the coast and had one to school in the nearest seaside town, Mr. Smith was not a lover of the sea; even when walking along the sands, he was always afraid of being cut off by the tide. He was not a very good swimmer, so perhaps this accounted for it.

After working for some years in London, he was transferred to a coastal resort, and of course, the family outings were often made to the beach. One day, his children pleaded to go out into the bay in a boat. The sun shone brightly, there was little wind and the water was calm. So Mr. smith hired a boat and with his two children rowed out into the bay. Of course, they were tempted to go further than they had intended, past the protecting cliffs and out to the open sea. At first all went well, but when they started to turn back they encountered difficulties. A strong breeze had sprung up and the currents here were rather treacherous.

Mr. Smith rowed hard, but it seems they were making little progress. The children were waving to attract the attention of the people on the beach. Just then, a motorboat appeared from the direction of the bay. Their had been noticed and the boat had come to their rescue.

A line was soon attached and they were towed back past the cliffs to the shore. Mr. Smith's dislike of the sea was not diminished by this experience.

38. Mr. Smith was nervous of walking along the sands because
(a) He had no love for the sea
(b) The sea was infested with deadly monsters.
(c) He feared that the tide may cut him off the land.
(d) The sea was too deep even near the coast.

39. What accounted for his dislike of the sea?
(a) He was not a good swimmer, he feared that he might get drowned in the sea.

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(b) The protruding cliffs made navigation dangerous
(c) He was accustomed to the comfortable city life.
(d) Many a tragedy had occurred in the past near the sea coast.

40. What did the children plead for?
(a) Climb the cliff to have a better view of the bay.
(b) Go to a coastal resort
(c) Taken for a picnic on the beach.
(d) Go out into the bay in a boat.

41. Mr. smith was tempted to go farther away from land than he had intended because
(a) He enjoyed rowing in the bright sunshine.
(b) The sea was calm, there being little wind.
(c) His children wanted to go far out in the sea.
(d) He encountered no danger while rowing the boat.

42. What difficulties did they encounter when returning to the shore?
(a) The boat they were rowing in suddenly developed a leak.
(b) Sea monsters surrounded the boat.
(c) Treacherous currents developed as a result of strong winds.
(d) The engine of the boat stopped functioning.

43. Why did the children wave?
(a) They were bidding good bye to the people on the shore.
(b) To attract the attention of the people on the bank to their plight.
(c) They had a joyous ride in the boat.
(d) Their boat was sinking.

44. Why did the motorboat appear?
(a) It was on patrol duty
(b) It happened to be out fishing in the sea.
(c) It came out of the bay to join its mother ship anchored in the deep sea.
(d) The crew of the boat having noticed the plight of the Smiths, came to rescue them.

45. How did Mr. Smith and the children get back to the shore?
(a) The crew of the motorboat helped them to mend the leak in their boat.
(b) With the help of a line they were transferred to the motorboat.
(c) By attaching a line to their boat, the motorboat towed them back to the shore.
(d) A few men from the motorboat joined the Smiths in their boat which they quickly rowed to the shore.

46. How many children were there with Mr. Smith?
(a) One (b) Two
(c) Three (d) Four

47. A suitable title for the above passage is
(a) The smith's Family.
(b) Mr. Smith and the Sea
(c) An Enjoyable Trip to the Sea
(d) Dangers of the Sea

Directions for Question 48 to 57:
Study the passage given below to answer the questions that follows.

Rajesh Kumar, a factory superintendent of the Asia Company, takes trips through the factory at different hours and on different days. He likes to talk with the operative employees and ask them questions about their work, their families, the material they are using and their machine being operated. He believes that such conversation makes for a better morale and also lets him know what is taking place in the factory.

Every Monday morning, at the production meeting, he brings up some aspects of information picked up from the previous week's factory visits and asks for an explanation of it. Usually, his production management personnel answer him, but Kumar continues asking about other bits of information he received until his associates are unable to answer or inform him that he has incorrect information. Rajesh, however, insists that the operative employees are telling him the truth an sometimes he points out that the same information is given to him by different employees in different departments. Some of his associates have suggested that they accompany Kumar during his factory tours, but he will have no part of this, stating that more than one management member is with him, he claims the friendly, sincere atmosphere he has achieved with many of the workers in the factory is a definite advantage and helps communication, and he does not want to jeopardize it in any way.

Kumar is not entirely satisfied with his productions control manager, Anil Sinha, who just does not seem to comprehend what he is told. Kumar admits the manufacturing work is getting quite complicated, but it irks him when Sinha just stands there and replies 'yes' , 'yes' 'yes'. Kumar has noticed that Sinha says he understands a request or a suggestion or a change given to him, but then proceeds to go about his work as if nothing had been said to him.

48. The focus of this passage is on
(a) Factory management
(b) Production control
(c) Communicating and management
(d) Efficient supervision

49. Rajesh Kumar's factory visits are intended to
(a) Create goodwill for the company
(b) Boost the worker's morale.

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(c) Know the whole truth about the way things are going on
(d) Identify the personal problems of the operative staff.

50. The production meeting of the company took place
(a) Every month (b) Every week
(c) Every alternate day (d) Every day
51. The information received by Rajesh Kumar during his visit is
(a) Incorrect (b) Biased
(c) Exaggerated (d) Reliable
52. According to Mr. Kumar, the information is given to him by
(a) One individual worker
(b) More than one worker in one department
(c) More than one worker in more than one department
(d) The owner of the company
53. Who suggested that his associates accompany him during his factory tour?
(a) Owner of the company
(b) Mr. Sinha
(c) His associates themselves
(d) Media persons
54. As a superintendent, what did Mr. Kumar do during the tours of the factory?
(a) Listen to grievances of the associates
(b) Reprimand the inefficient worker.
(c) Suspend the inefficient worker.
(d) Counsel and boost the morale of the workers.
55. What can be said of the workers during the visit of Mr. Kumar? They
(a) Kept quiet
(b) Explained their tardiness
(c) Acted disinterested
(d) Threatened by going to the union
56. Rajesh Kumar does not want to visit the factory along with his associates because
(a) It will expose his weaknesses as a superintendent
(b) It will create an atmosphere of confrontation among officers and subordinates
(c) The officers accompanying him will feel embarrassed
(d) The atmosphere will not be conductive to his real purpose
57. Rajesh Kumar is not fully satisfied with Anil Sinha because of his
(a) Poor understanding
(b) Obstinacy
(c) Hypocrisy
(d) Flattering words

Directions for Question numbers 58 to 62: Study the passage given below to answer the questions that follows.

When my wife, son and I were travelling in a rented car through Pairs on our way to a cousin's home in the northern suburbs, I became thoroughly confused by the maze of circular and one-way streets. Finally we spotted a policeman and pulled up to ask directions. We were surprised when he removed his tall helmet, opened the back door and slide in beside our son. "it will be much easier to show you", he explained

Off we went through a series of left and right turns, traffic lights and even a short jaunt up a one-way lane the wrong way. Twenty minutes later we arrived at a main intersection. " Now you will be all right", announced our guide. "Just turn here, stay on the road for eight or nine kilometers, and you are there". With that he opened the door, got out replaced his helmet and strode briskly off.

58. The 'tone; of narration in the passage is
(a) Sombre (b) Ironic
(c) Comic (d) Satirical
59. The author was confused by...
(a) A network of circular roads
(b) Wrong direction by traffic cops
(c) Confusing road signals
(d) Road map that he had with him
60. The word 'suburbs' means
(a) A remote village
(b) The city center
(c) Residential area outside a town
(d) An industrial town
61. The expression 'our guide' in the passage means
(a) Policeman (b) Cousin
(c) Passer-by (d) Professional guide
62. The response of the policeman can be said to be
(a) Rude (b) Greedy
(c) Imposing (d) Helpful

Directions for Question numbers. 63 to 65:
In each of the following questions, one or more of the sentence is/are incorrect. Identify the incorrect sentence(s).

63. 1. A changing perception as to India has also helped
2. India is no longer a backward, third word country
3. Helping boost the image are favourable opinions of leading international financial institutions.
4. India will be the third biggest economy by 2050, just behind China and the US in that order.

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(a) 1 and 4 (b) Only 1
(c) Only 2 (d) No error

64. 1. I remember seeing a full pages advertisement with a bright background colour.
2. The only other item on the page was a very small line of type in a lighter shade of the same colour.
3. Since I can Still recall the ad, it must made an impression.
4. Using colour to impact your design works best when it involves, the unexpected or extreme.
(a) Only 3 (b) Only 2
(c) Only 4 (d) No error

65. 1. In the long history of the world, only a few generations have been granted the role of defending freedom in its hour of maximum danger.
2. I do not believe that any of us would exchange places with any other people or any other generation.
3. The energy, the faith the devotion which we bring to this endeavor will light our country and all who serve it.
4. The glow from that fire can truly light the world.
(a) Only 2 (b) Only 1
(c) Only 3 (d) No error

Directions for Question numbers 66 to 70: Study the passage given below to answer the questions that follows.

Dilip Kumar's train was late and it reached Mumbai a little after midnight. It was his first visit to the city and he did not know where to go. He thought he would go to a choultry where he would not have to pay rent, but he did not know how to find one at that hour. He asked a porter to get him a cheap room. The porter asked him for fifty rupees to take him to one. But Dilip Kumar waved him away and walked out of the station. He wandered through the streets and asked a number of people, but could not find a room cheap enough for him.

He sat down on a park bench to think of what he should do next. He was very tired and fell asleep on the bench. He woke up the next morning stiff in every limb, but smiled when he realized that it was the cheapest night's loading that he had ever had.

66. Dilip Kumar could not get any accommodation for the nights as....
(a) All the hotels in the city were closed.
(b) All the hotels rooms were booked
(c) The hotels were too expensive for him to afford.
(d) He wanted to spend the night in the open.

67. In the situation, the word 'choultry' should mean
(a) An expensive hotel
(b) A highway hotel
(c) A roadside eatery
(d) A free resting place

68. The porter refused to help Dilip Kumar because
(a) He was rude to the porter
(b) He had no previous acquaintance with the porter
(c) He spoke a language which the porter could not understand
(d) He refused to pay the porter any tip.

69. The night in the open
(a) Refreshed Dilip Kumar
(b) Gave him aches all over his body
(c) Made his limbs stronger
(d) Did not affect him all.

70. From the situation, Dilip Kumar emerges as
(a) A thrifty person
(b) An extravagant person
(c) An adventurous person
(d) A fun loving person

Directions for Question numbers. 71 to 75: Choose the correct options that fill the blanks in each sentence.

71. In the absence of native predators to stop the spread of their population, the imported goats .... To such an inordinate degree that they over-grazed the countryside and ....the native vegetation.
(a) Suffered, abandoned
(b) Propagated, cultivated
(c) Thrived, threatened
(d) Dwindled, eliminated

72. Carried away by the ....effects of the experimental medication, the patient.... His desire to continue as a subject for as long as he could.
(a) Noxious, Proclaimed
(b) Supplementary, announced
(c) Frantic, repeated
(d) Salutary, reiterated

73. Just as a highway automobile accident leaves lasting marks of spilled coolant,..... and oil, the smashing together of gigantic land masses release and redirects fluids that flow, heat....and deposit, leaving an enduring record of their presence.
(a) Fuel, evaporate (b) Petrol, disappear
(c) Paint, mark (d) Anti-freeze, drip

74. The young boy's .....attempts to explain to his girlfriend why he had failed to show up for their movie date did little to ease her ....feelings
(a) Veracious vacuous
(b) Impassioned, disconsolate

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(c) Unbelievable, gluttonous
(d) Chronic, vicarious

75. A few decades ago,.....about gender roles made it somewhat for a woman to study veterinary science, but today, female veterinarians are quite
(a) Preconceptions, prevalent
(b) Diatribes, affluent
(c) Mindsets, poor
(d) Lectures, negligent

COMPUTER AWARENESS

76. A collection of eight bits is called
(a) Byte (b) Word
(c) Record (d) File
77. Where does a computer add and compare?
(a) Hard disk (b) Floppy disk
(c) CPU chip (d) Memory chip
78. Computer cannot do anything without a
(a) Chip (b) Memory
(c) Output device (d) Program
79. Group of instructions that directs a computer is called
(a) Storage (b) Memory
(c) Logic (d) Program
80. A computer program consists of
(a) System flowchart
(b) Program flowchart
(c) Algorithms written in computer's language
(d) Discrete logic steps
81. The ascending order of a data hierarchy is
(a) Bit-byte-field-record-file-database
(b) Bit-bytes-record-field-file database
(c) Bytes-bit-field-record-file-database
(d) Bytes-bit-record-field-file-database
82. Who is called the 'grandfather' of the computer?
(a) Blaise Pascal (b) Charles babbage
(c) Joseph Jacquard (d) Dr. Herman Hollerith
83. Where was the India's first computer installed and when?
(a) Institute of Social Science, Agra, 1955
(b) Indian Institute of Statistics, Delhi, 1957
(c) Indian Statistical Institute, Calcutta, 1955
(d) Indian institute of Science, Bangalore 1971
84. An error in a computer program is called a
(a) Chip (b) Bug
(c) Bit (d) Byte
85. A floppy disk contains
(a) Circular tracks only (b) Sectors only
(c) Both A and B (d) None of these
86. Which American computer company is called Big blue?
(a) Microsoft Corporation
(b) Compaq corporation
(c) IBM
(d) Tandy Svenson
87. The first IBM PC did not have any
(a) Disk drive (b) RAM
(c) ROM (d) PORT
88. Today's computer, giant IBM was earlier known by a different name which was changed in 1924. What was that name?
(a) Tabulator Machine Co.
(b) Computer Tabulating Recording Co.
(c) The Tabulator Ltd.
(d) International Computer Ltd.
89. If a computer is on but not respond to a system reset, what is it said to be?
(a) Dead (b) Off
(c) Hung (d) Insensitive
90. What is the term which represents the use of links between information of all sorts, whether text, graphics, video or audio based?
(a) Hypertext (b) Hypermedia
(c) HyperCard (d) WildCard
91. A term associated with the comparison of processing speeds of different computer systems is
(a) EFTS (b) MPG
(c) MIPS (d) CPS
92. Programs which protect a disk from catching an infection are called
(a) Virus (b) Vaccines
(c) Antidotes (d) All of these
93. CAD stands for
(a) Computer Aided Design
(b) Computer Algorithm for Design
(c) Computer Application in Design
(d) None of these
94. A step-by-step procedure used to solve a problem is called
(a) Operating system (b) Algorithm
(c) Application program (d) None of these
95. The language that the computer can understand and execute is called
(a) Machine language
(b) Assembly language
(c) High level language
(d) System program
96. Where are silicon chips manufactured in India?
(a) Chandigarh (b) Punjab
(c) U.P. (d) Tamil Nadu
97. Human beings are referred to as Homo Sapiens. Which device is called Silicon Sapiens?
(a) Monitor (b) Hardware
(c) Robot (d) Computer
98. What is meant by computer Literacy?
(a) Knowing what a computer can and cannot do
(b) Ability to write computer programs
(c) Knowing the computer related vocabulary

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(d) Ability to assemble computers

99. What is a header in a document?
   (a) Text at the bottom of every page
   (b) Numbers which appear on every page
   (c) Text which appears at the top of every page
   (d) None of these
100. What does a document contain?
   (a) Data about a set of similar things
   (b) Mainly text
   (c) A set of different graphics
   (d) None of these
101. Which of the functions is not valid for performing addition?
   (a) =SUM (A3:C3)
   (b) =A3Sum:B3SUM:C3SUM
   (c) =A3+B3 +C3
   (d) None of these
102. Which of not a valid cell address?
   (a) ADF213 (b) ZA1
   (c) AO (d) None of these
103. If you do not pick up your e-mail for a week,
   (a) It will be deleted
   (b) It will be waiting for you to-collect it
   (c) A letter will be sent to you in the post
   (d) None of these
104. What does HTML stand for?
   (a) Hyper-Textual Mark-up Lingo
   (b) Hyperlink Text Marking Language
   (c) HyperText Mrak-up Language
   (d) None of these
105. Which functional component of a computer is responsible for the computing?
   (a) Input (b) Output
   (c) CPU (d) Memory
106. What is a cookie?
   (a) Cooking software
   (b) Web site
   (c) Internet information file
   (d) Hacker file
107. What is degauss?
   (a) Attachement for CPU
   (b) Creating magnetic media
   (c) Erasing magnetic media
   (d) Medical software
108. A computer virus cannot be contracted by
   (a) Floppy diskette (b) E-mail
   (c) Scanner (d) Internet downloads
109. A CPU Stands for what?
   (a) Central Power Unit
   (b) Certified Public Unit
   (c) Central Processing Unit
   (d) Certified Power Unit
110. A cathode ray tube is found in what?
   (a) CPU (b) Printer
   (c) Monitor (d) Scanner
111. What does the term IRQ stand for?
   (a) Input Request Que
   (b) Interrupt Request Que
   (c) Both of these
   (d) None of these
112. The Intel Pentium bug/flaw was an issue with the
   (a) Cache (b) FPU
   (c) Socket (d) There was no bug/flaw
113. What does the term MIME stand for?
   (a) Mail Internet Mail Exchange
   (b) Mail interleave method exchange
   (c) Multipurpose internet mail extensions
   (d) Multipurpose interleave mail exchange

ANALYTICAL AND LOGICAL REASONING

Directions for Question Numbers 114 to 123: These questions consists of a question and two statements numbered I and II given below it. You have to decide whether the data provided in the statements are sufficient to answer the questions. Read both the statements and give your answer as follows:
   (a) If the data in statement I alone is sufficient to answer the question.
   (b) If the data in statement II alone is sufficient to answer the question.
   (c) If the data in statement I and II together are necessary to answer the question.
   (d) If the data in statement I and II together are not sufficient to answer the question

114. How is D related to A?
   I. B is the brother of A.
   II. B is D's son
115. By how much is Vipin heavier than Hem?
   I. Vipin's weight is 65 kg.
   II. Naresh is 10kg heavier than Hem.
116. In which year was Himanshu born?
   I. Himanshu's mother was 34 years old in 1989
   II. Himanshu was born three years after his mother's marriage.
117. What is the height of Ashok?
   I. Nisheeth is 5'-8" tall and is 3" taller than Ashok.
   II. Kapil's is 4" taller tha Ashok.
118. The set S of numbers has the following properties:
   1. If X is in S, then 1/X is in S
   2. If both X and Y are in S, then so is X+Y .
   Is 3 in S?
   I. 1/3 is in S
   II. 1 is in S
119. Is x = y?
   I. $(x+y)\left(\frac{1}{x}+\frac{1}{y}\right)=4$

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II. $(x-50)^2=(y-50)^2$

120. What is the absolute difference between the two numbers?
I. 60% of the bigger number is equal to the small numbers.
II. Half of the bigger number is 5 less than the smaller number.

121. Which newspaper has the maximum circulation is Delhi?
I. 2 Lacs copies of newspaper X are sold in Delhi while the circulation of newspaper Y is estimated at 3 Lacs.
II. The circulation of newspaper Y is 55 percent of the total circulation of newspapers in Delhi.

122. What is the profit percentage earned by the shopkeeper on selling the article in his shop?
I. Labelled price of the article sold is 110% of the cost price.
II. Cost price of the article is Rs. 1,200

123. How many hours a day must 4 pumps work to empty a conical tank in 1 day?
I. 3 pumps working 8 hours a day can empty another tank in 2 days.
II. The other tank has twice the floor area arid 1.5 times the depth of the original tank.

Directions for Question Numbers 124 to 128: Answer the following questions.

124. A and B enter into a partnership with Rs. 50,000 and Rs. 60,000 respectively. C joins them after X months contributing Rs. 70,000 and B leaves X months before the end of the year. If they share the profits in the ratio of 20:18:21, then the value of X is
(a) 3 (b) 9
(c) 6 (d) 8

125. What should be subtracted from 15, 28, 20 and 38 so that the remaining numbers may be proportional?
(a) 4 (b) 2
(c) 6 (d) None of these

126. Two pipes would fill a cistern in 24 and 32 minutes respectively. Both the pipes are kept open. When should the first pipe be closed so that the cistern may be just filled in 16 minutes?
(a) After 10 minutes (b) After 12 minutes
(c) After 14 minutes (d) None of these

127. A trader has 50 kgs of rice, a part of which he sells at 10% profit and the rest at 5% loss. He gains 7% on the whole. How much was sold at 10% gain and how much at 5% loss?
(a) 45,5 (b) 30, 20
(c) 35, 15 (d) 40, 10

128. To win an election, a candidate needs $3/4^{th}$ of the cast votes. If, after $2/3^{rd}$ votes have been counted, a candidate has $5/6^{th}$ of what he needs, then what part of the remaining ratio does he still need?
(a) $1/8^{th}$ (b) $1/10^{th}$
(c) $1/4^{th}$ (d) $3/8^{th}$

Directions for Question Numbers 129 to 133: Answer the questions based on the information given below:
Six swimmers A, B, C, D, E, F complete in race.
The outcome is as follows:
(1) B does not win.
(2) Only two swimmers separate E and D.
(3) A is behind D and E
(4) B is ahead of E, with one swimmer intervening.
(5) F is a head of D

129. Who stood fifth in the race?
(a) A (b) E
(c) D (d) B

130. How many swimmers separate A and F?
(a) 4 (b) 3
(c) 2 (d) Data insufficient

131. The swimmer between C and E is...
(a) A (b) B
(c) F (d) None of these

132. Who wins the race?
(a) D (b) B
(c) F (d) C

133. If, in the end of the race., swimmer D is disqualified by the 'Judges, then swimmer B finishes in which place?
(a) 1 (b) 2
(c) 3 (d) 4

Directions for Question Numbers 134 to 138: Answer the questions based on the information given below: there are six steps that lead from the first to the second floor.
(1) No two people can be on the same step.
(2) Mr. A is two steps below Mr. C
(3) Mr. B is a step next to Mr. D.
(4) Only one step is vacant (No one standing on that step).
(5) Denote the first step-by step 1 and second step-by step 2 etc.

134. If Mr. A is on the first step, which of the following is true?
(a) Mr. B is on the second step
(b) Mr. C is on the fourth step
(c) A person Mr. E, could be on the third step
(d) Mr. D is on a higher step than Mr. C

135. If Mr. E was on the third step and Mr. B was on a higher step than Mr. E, which step must be vacant?

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(a) Step 1 (b) Step 2
(c) Step 4 (d) Step 5

136. If Mr. B was on step 1, which step could A be on?
(a) 2 and 3 only (b) 3 and 5 only
(c) 3 and 4 only (d) 4 and 5 only

137. If there were two steps between the step that A was standing and the step that B was standing on, and A was on a higher step than D, a must be on step?
(a) 2 (b) 3
(c) 4 (d) 5

138. Which of the following is false?
(i) B and D can be both on odd numbered steps in one configuration.
(ii) In a particular configuration A and C must either both an odd numbered steps or both an even-numbered steps.
(iii) A person E can be on a step next to the vacant step.
(a) (i) only (b) (ii) only
(c) (iii) only (d) Both (i) and (iii)

Directions for Question numbers 139 and 140: Answer the questions based on the information given below:
In a group of 5 persons A, B, C, D, E; the following statements holds:
(i) A and C are intelligent in English and Reasoning.
(ii) B and C are intelligent in English and General Awareness.
(iii) E and D are intelligent in Arithmetic and Interview.
(iv) E is intelligent in Interview Reasoning and Arithmetic.
(v) B and D are intelligent in Arithmetic and General Awareness.

139. Who is intelligent in English, Arithmetic and General Awareness?
(a) A (b) B
(c) C (d) D

140. Who is intelligent in English and Reasoning but not in General Awareness?
(a) A (b) B
(c) C (d) D

Directions for Question Numbers 141 to 145: Choose the right answer on the basis of the information given below:
Six books A, B, C, D, E, F are placed side by side. C, B and E have blue covers and other books have red covers. Only D and F are new books and the rest are old. A, C and D are law reports, others are medical reports.

141. Which of the following books is the new law report with a red cover?
(a) A (b) B
(c) C (d) D

142. Which two books are old medical reports with blue covers?
(a) B and E (b) B and F
(c) B and C (d) E and F

143. Which red cover medical report is a new book?
(a) B (b) D
(c) F (d) E

144. Which of the following is an old volume of a medical report?
(a) C (b) D
(c) E (d) F

145. Which one is the old blue covered law book?
(a) A (b) B
(c) C (d) D

Direction for Question (146 to 150): Complete the Series

146. AGMS ciou,
(a) BHNT bhnt (b) BHNT djpv
(c) ABCD ascd (d) bhnt DJPV

147. 48, 24, 72, 36, 108,
(a) 115 (b) 110
(c) 121 (d) 54

148. K – 11, M – 13, P – 16, T – 20 ,
(a) V-22 (b) U-21
(c) Y-25 (d) W-25

149.

B	G	N
D	J	R
G	N	?

(a) U (b) V
(c) X (d) W

150.

3J	27D	9E
7I	21K	3M
4D	?	7J

(a) 11E (b) 28G
(c) 351 (d) 48F

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ANSWER KEY

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

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