AFCAT 1 2012 QUESTION PAPER

INSTRUCTIONS: TIME LIMIT : 2 HOURS

1. Total No. of Questions–100. Each Question is of three marks.
2. One mark will be deducted for every wrong answer.
3. Do not write or mark on the Question Paper.
4. Question Paper to be returned before leaving the Exam Hall.

DIRECTIONS (Qs. 1-5) : *Read the following passage carefully and answer the questions given below:*

Pablo Picasso showed his truly exceptional talent from a very young age. His first word was lapiz (Spanish for pencil) and he learnt to draw before he could talk. He was the only son in the family and very good-looking, so he was thoroughly spoilt. He hated school and often refused to go unless his doting parents allowed him to take one of his father's pet pigeons with him.

　　Apart from pigeons, his great love was art and when in 1891 his father, who was an amateur artist, got a job as a drawing teacher at a college, Pablo went with him to the college. He often watched his father paint and sometimes was allowed to help. One evening his father was painting a picture of their pigeons when he had to leave the room. He returned to find that Pablo had completed the picture, and it was so amazingly beautiful and lifelike that he gave his son his own palette and brushes and never painted again. Pablo was just thirteen.

1.   As a boy Pablo Picasso was
     (a) ordinary looking but talented.
     (b) handsome and talented.
     (c) handsome and studious.
     (d) handsome and hardworking.

2. He was spoilt mostly because he was
     (a) a smart boy.
     (b) loved by one and all.
     (c) the only son in the family.
     (d) always surrounded by notorious boys.

3. Picasso went to school only when
     (a) his friends accompanied him.
     (b) his father went with him.
     (c) he was allowed to paint at school.
     (d) he was allowed to carry a pet with him.

4. When his father painted in the college, Pablo
     (a) occasionally helped him. (b)   rarely helped him.
     (c) always helped him.   (d)   invariably helped him.

5. Pablo's father gave up painting because he
     (a) did not like the job.
     (b) retired from the college.
     (c) was impressed by his son's talent.
     (d) lost interest in painting.

DIRECTIONS (Qs. 6-10) : *In each of the following questions, find out which part has an error.*

6. The boos was irritated (a) / by him neglecting (b) / the duties and (c) / not listening to his advice (d)

7. Each of the three (a) / beggars were (b) / asking for more (c) / food to eat (d)

8. My brother sent (a) / two pairs (b) / of shoe (c) / from America (d).

9. The young boy said (a) / that he (b) / neither liked me (c) / nor my wife (d).

10. He was (a) / congratulated for (b) / his success in (c) / the 100 m race (d)

DIRECTIONS (Qs. 11-15) : *Pick up the most effective word from the given words to fill in the blanks to make the sentence meaningfully complete.*

11. Sanjay was_____ with divine vision to see the great battle.
     (a) demure   (b)   authorized
     (c) endowed   (d)   uttered

12. There was so much_____ material in the essay that it was difficult to get the author's message.
     (a) variegated   (b)   superficial
     (c) extraneous   (d)   exemplary

13. The world is so constructed that if you wish to enjoy its pleasures, you must also_____ its pains.
     (a) deny   (b)   neglect
     (c) ignore   (d)   endure

14. Indian press did not give _____ to the British publicity.
     (a) credence   (b)   scion
     (c) augury   (d)   opportunity

15. Travellers _____their reservations well in advance if they want to travel during the Diwali holidays.
     (a) has better to get   (b)   had better get
     (c) had to get better   (d)   had better got

DIRECTIONS (Qs. 16-18) : *In each of the following choose the word most similar in meaning to the word given in capitals.*

16. EMANCIPATE
     (a) Set free   (b)   Exist
     (c) Correct morally   (d)   Restrain

17. DECEIT
     (a) Simplicity   (b)   Gentility
     (c) Sincerity   (d)   Dishonesty

18. ADMONITION
     (a) Thrash   (b)   Hindrance
     (c) Warning   (d)   Exhort

19. VOCIFEROUS
    (a) Laudable   (b) Quiet
    (c) Dangerous   (d) Powerful
20. IMPLICATE
    (a) Involve   (b) Exonerate
    (c) Corrupt   (d) Accuse

21. The person who is regarded as the greatest law giver of ancient India is
    (a) Panini   (b) Kautilya
    (c) Manu   (d) Patanjali
22. The immortal fame of Ashoka largely rests upon
    (a) his conversion to Buddhism and its propagation.
    (b) his policy for the welfare of his subjects.
    (c) his work in the sphere of politics and moral teaching.
    (d) his extensive conquests.
23. Gandhiji started Dandi March
    (a) to demonstrate against the British Empire.
    (b) to break the salt law.
    (c) to boycott foreign goods.
    (d) None of the above.
24. The first war of Indian Independence began on 10 May 1857 at
    (a) Meerut   (b) Jhansi
    (c) Barrackpore   (d) Delhi
25. The sun rises in Arunachal Pradesh two hours before it does in Dwaraka in Gujarat. This is because the former is
    (a) higher in elevation than Dwaraka and the earth rotates from West to East.
    (b) situated further North than Dwaraka and the earth rotates from West to East.
    (c) situated further East (about 30° Longitude) than dwaraka and the earth rotates from West to East.
    (d) situated about 30° East of Dwaraka and the earth rotates from West to East.
26. Srinagar is situated on the banks of the river
    (a) Ravi   (b) Sutlej
    (c) Jhelum   (d) Chenab
27. The areas in India that receive approximately an average of more than 200 cms of rainfall annually are
    (a) Meghalaya, Assam, Nagaland, Arunachal Pradesh.
    (b) Odisha, Madhya Pradesh, Gujarat, Maharashtra.
    (c) Meghalaya, Assam, Rajasthan, Jammu & Kashmir.
    (d) Meghalaya, Delhi, Punjab, Rajasthan.
28. Isotherms are imaginary lines drawn on a map which connect places of equal
    (a) Atmospheric pressure   (b) Humidity
    (c) Rainfall   (d) Temperature
29. Jim Corbett National Park is situated in which state?
    (a) Arunachal Pradesh   (b) Himachal Pradesh
    (c) Andhra Pradesh   (d) Uttaranchal
30. Which one of the following statement regarding the sun is correct?
    (a) The sun is composed mainly of hydrogen.
    (b) Its energy is generated by nuclear collision in its interior.
    (c) It is calculated that the sun consumes about a trillion pounds of hydrogen every second.
    (d) All of the above.
31. Supersonic speed is speed greater than the speed of sound (in air at sea level) that is to say around_____ miles/hour.
    (a) 760   (b) 860
    (c) 960   (d) 1060
32. Yoga sutra was written by
    (a) Vatsyayana   (b) Pathanjali
    (c) Bhartrihari   (d) Maharshi Mahesh
33. The National Institute of Oceanography is located at
    (a) Trivandrum   (b) Panaji
    (c) Cochin   (d) Mangalore
34. An aeroplane rises because
    (a) of upward reaction of air.
    (b) the density of air above the plane is less than below it.
    (c) the pressure above its wings is less than the pressure below them.
    (d) its nose points upwards.
35. Rocks formed on the solidification of molten matter are called
    (a) Metamorphic rocks   (b) Sedimentary rocks
    (c) Volcanic rocks   (d) Igneous rocks
36. The pioneer of Atomic energy in India is
    (a) Homi J Bhabha   (b) Vikram Sarabhai
    (c) C.V. Raman   (d) C.K. Naidu
37. Which one of the following statements regarding FIFA World Cup 2010 is not correct?
    (a) South Africa became the first host nation to fail to qualify for the tournament's second round.
    (b) The tournament was the culmination of a qualification process that began in August 2007.
    (c) This is the first time that the tournament was hosted by an African nation.
    (d) Zakumi, the official mascot for the FIFA World Cup, 2010 is an African bush elephant.
38. The first Indian to win the World Amateur Snooker Championship is
    (a) Om Agarwal   (b) Geet Sethi
    (c) Michael Ferreira   (d) Wilson Jones
39. The first person to win the Arjuna award for badminton is
    (a) Pullela Gopichand   (b) Prakash Padukone
    (c) Nandu Natekar   (d) Farook Engineer
40. The sport which requires the largest field is
    (a) Football   (b) Cricket
    (c) Hockey   (d) Polo

41. (a) Advice   (b) Counsel
    (c) Direct   (d) Suggest
42. (a) Tumble   (b) Topple
    (c) Crumble   (d) Sprain
43. (a) Sobriquet   (b) Alias
    (c) Pseudonym   (d) Anonymous
44. (a) Mumbai   (b) Goa
    (c) Visakhapatnam   (d) Thiruvananthapuram
45. (a) Petrol   (b) Acetone
    (c) Mercury   (d) Kerosene

46. Hope: Despair
    - (a) Work : Failure
    - (b) Worship : Adore
    - (c) Cow : Milk
    - (d) Encourage : Dishearten
47. Army : Logistics
    - (a) War: Logic
    - (b) Soldiers : Students
    - (c) Business : Strategy
    - (d) Team : Individual
48. Bouquet : Flower
    - (a) Skin : Body
    - (b) Chain : Link
    - (c) Product : Factory
    - (d) Page : Book
49. Revenge: Vendetta
    - (a) Sleep: Dream
    - (b) Sun: Moon
    - (c) Envy : Jealousy
    - (d) Heaven : God
50. Refine : Style
    - (a) Retouch : Photograph
    - (b) Paint : Wall
    - (c) Compose : Song
    - (d) Author : Book
51. Fear : Tremble
    - (a) Hand: Shake
    - (b) Heat : Perspire
    - (c) Distance : Walk
    - (d) Evening : Star
52. Condone: Offence
    - (a) Punish: Criminal
    - (b) Mitigate: Penitence
    - (c) Overlook: Aberration
    - (d) Ignore: Loyalty
53. Plant : Flower
    - (a) Face :Eye
    - (b) Stem : Tree
    - (c) Chair :Sofa
    - (d) Blades :Grass
54. Protoplasm : Cell
    - (a) Fibre : Plastic
    - (b) Coin : Money
    - (c) Chemistry : Elements
    - (d) Chain : Link
55. Nalanda : Takshshila
    - (a) Venus : Mars
    - (b) University : College
    - (c) Office : Department
    - (d) Ship : Cargo
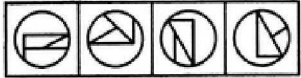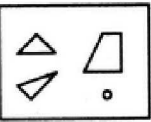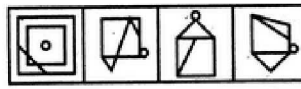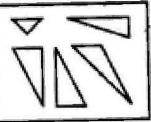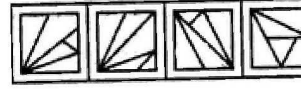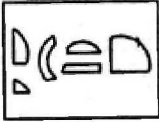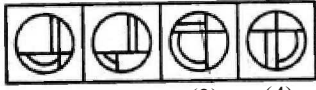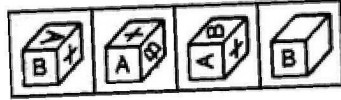
56. Foot is to Man as Hoof is to _____.
    - (a) Dog
    - (b) Cow
    - (c) Cat
    - (d) Rabbit
57. Broad is to Narrow as _____ is to Lane.
    - (a) Footpath
    - (b) Field
    - (c) Pavement
    - (d) Road
58. Back is to Backbone as Belly is to _____.
    - (a) Throat
    - (b) Ribs
    - (c) Heart
    - (d) Navel
59. Ankle is to Knee as Wrist is to _____.
    - (a) Elbow
    - (b) Finger
    - (c) Hand
    - (d) Foot
60. Sting is to Bee as _____ is to Snake.
    - (a) Slithering
    - (b) Rats
    - (c) Poison
    - (d) Fangs
61. Hari's income is 20% more than Madhu's income. Madhu's income is less than Hari's income by
    - (a) 15%
    - (b) 16.66%
    - (c) 20%
    - (d) 22.25%
62. A sum of money lent out at simple interest doubled itself in 20 years. In how many years will it triple itself?
   - (a) 28 yrs
    - (b) 30 yrs
    - (c) 40 yrs
    - (d) 35 yrs
63. Which of the following fractions are in ascending order?
    - (a) 2/3, 3/5,7/9,9/11,8/9
    - (b) 3/5, 2/3, 9/11, 7/9, 8/9
    - (c) 3/5, 2/3, 7/9, 9/11, 8/9
    - (d) 8/9, 9/11, 7/9, 2/3, 3/5
64. $337.62 + 8.591 + 34.4 = ?$
    - (a) 370.611
    - (b) 380.511
    - (c) 380.611
    - (d) 426.97
65. Find the sum of :- 1/9+1/6+1/12+1/72
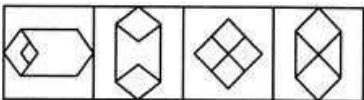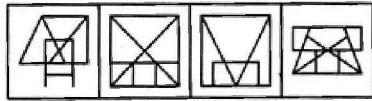   - (a) 3/5
    - (b) 3/2
    - (c) 3/8
    - (d) 4/7
66. Find the average of all the numbers between 6 and 34 which are divisible by 5.
    - (a) 18
    - (b) 20
    - (c) 24
    - (d) 30
67. The average of first 80 natural numbers is
    - (a) 40
    - (b) 41
    - (c) 40.5
    - (d) 142
68. If the sum of a few numbers is 450 and their mean is 50 and if another number 100 is included, the mean would become
    - (a) 55
    - (b) 60
    - (c) 75
    - (d) 150
69. $?\%$ of $932 + 30 = 309.6$
    - (a) 25
    - (b) 30
    - (c) 35
    - (d) 40
70. The difference between a number and its two-fifth is 510. What is 10% of that number?
    - (a) 12.75
    - (b) 85
    - (c) 204
    - (d) None
71. One litre of water is evaporated from 6 litres of a solution containing 5% salt. The percentage of salt in the remaining solution is
    - (a) 16%
    - (b) 5%
    - (c) 4%
    - (d) 6%
72. A shopkeeper professes to sell all things at a discount of 10% but increases the selling price of each article by 20%. His gain on each article is
    - (a) 6%
    - (b) 8%
    - (c) 10%
    - (d) 12%
73. If the selling price of an article is 4/3rd of its cost price, the profit in transaction is
    - (a) 16.75%
    - (b) 20.50%
    - (c) 25.50%
    - (d) 33.33%
74. If selling price is doubled, the profit triples. Find the profit percent.
    - (a) 66.66
    - (b) 100
    - (c) 105.33
    - (d) 120
75. If 4/5th of an estate is worth ₹ 16,800, then the value of 3/7th of the estate is
    - (a) ₹9000
    - (b) ₹21000
    - (c) ₹72000
    - (d) ₹90000
76. If $a/b = 3/4$ and $8a + 5b = 22$, then the value of 'a' is
    - (a) 1
    - (b) 1/2
    - (c) 3/2
    - (d) 3/4
77. If $(a - b)$ is 6 more than $(c + d)$ and $(a + b)$ is 3 less than $(c - d)$, then the value of $(a - c)$ is
    - (a) 0.5
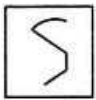   - (b) 1.0
    - (c) 1.5
    - (d) 2.0

78. Two numbers are in the ratio 7 : 8. If 3 is added to each of them their ratio becomes 8:9. The numbers are
(a) 14, 16   (b) 24, 27
(c) 21, 24   (d) 16, 18

79. The sum of three numbers is 98. If the ratio of the first to the second is 2 : 3 and that of the second to the third is 5 : 8, then the second number is
(a) 20   (b) 30
(c) 48   (d) 58

80. A certain amount was divided between Sita and Gita in the ratio 9 : 8. If Sita's share was ₹ 4500 then the amount is
(a) ₹ 9000   (b) ₹ 8500
(c) ₹ 6750   (d) ₹ 9025

DIRECTIONS (Qs 81-85) : *Find out which of the figures (1), (2), (3) and (4) can be formed from the pieces given in figure (X).*
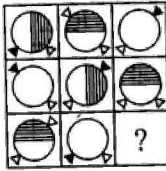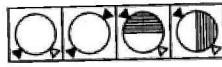
81.
(X)   (1) (2) (3) (4)
(a) 1   (b) 2
(c) 3   (d) 4

82.
(X)   (1) (2) (3) (4)
(a) 1   (b) 2
(c) 3   (d) 4

83.
(X)   (1) (2) (3) (4)
(a) 1   (b) 2
(c) 3   (d) 4

84.
(X)   (1) (2) (3) (4)
(a) 1   (b) 2
(c) 3   (d) 4

85. Find out how the key figure (X) will look like after rotation.
(X)   (1) (2) (3) (4)
(a) 1   (b) 2
(c) 3   (d) 4

DIRECTIONS (Qs. 86 to 90) : *In each of the following questions (Q.86-90) select a figure from amongst the four alternatives, which when placed in the blank space of figure (X) would complete the pattern.*

86.
(X)   (1) (2) (3) (4)
(a) 1   (b) 2
(c) 3   (d) 4

87.
(X)   (1) (2) (3) (4)
(a) 1   (b) 2
(c) 3   (d) 4

88.
(X)   (1) (2) (3) (4)
(a) 1   (b) 2
(c) 3   (d) 4

89.
(X)   (1) (2) (3) (4)
(a) 1   (b) 2
(c) 3   (d) 4

90.
(X)   (1) (2) (3) (4)
(a) 1   (b) 2
(c) 3   (d) 4

DIRECTIONS (Qs. 91-95) : *In each of the following questions (Q91-95) you are given a figure (X) followed by four alternative figures (1), (2), (3) and (4) such that figure (X) is embedded in one of them. Trace out the alternative figure which contains fig. (X) as its part.*

91.
(X)   (1) (2) (3) (4)
(a) 1   (b) 2
(c) 3   (d) 4

92.
(X)   (1) (2) (3) (4)
(a) 1   (b) 2
(c) 3   (d) 4

93.
(X)   (1) (2) (3) (4)
(a) 1   (b) 2
(c) 3   (d) 4

94.

(X)   (1)   (2)   (3)   (4)

(a) 1   (b) 2   (c) 3   (d) 4
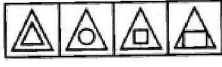
95.

(X)   (1)   (2)   (3)   (4)

(a) 1   (b) 2   (c) 3   (d) 4
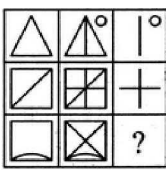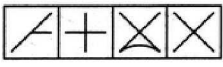
DIRECTIONS (Qs. 96 to 100) : *In each of the following questions (Q96-100) find out which of the answer figures (1), (2), (3) and (4) completes the figure matrix*

96.

(1) (2) (3) (4)

(a) 1   (b) 2   (c) 3   (d) 4

97.

(1) (2) (3) (4)

(a) 1   (b) 2   (c) 3   (d) 4

98.

(1) (2) (3) (4)

(a) 1   (b) 2   (c) 3   (d) 4

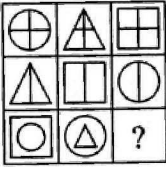99.
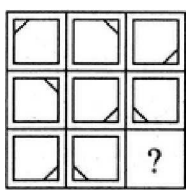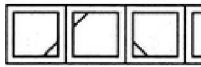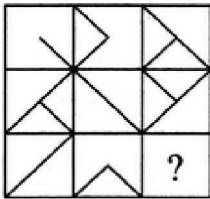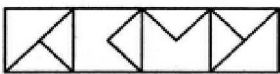
(1) (2) (3) (4)

(a) 1   (b) 2   (c) 3   (d) 4

100.

(1) (2) (3) (4)

(a) 1   (b) 2   (c) 3   (d) 4

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ANSWER KEY									
1. (b)	2. (c)	3. (d)	4. (a)	5. (c)	6. (b)	7. (c)	8. (c)	9. (c)	10.(b)
11.(c)	12.(c)	13.(d)	14.(a)	15.(b)	16.(a)	17.(d)	18.(c)	19.(c)	20.(a)
21.(c)	22.(a)	23.(b)	24.(a)	25.(c)	26.(c)	27.(a)	28.(d)	29.(d)	30.(d)
31.(a)	32.(b)	33.(b)	34.(c)	35.(d)	36.(a)	37.(d)	38.(d)	39.(c)	40.(d)
41.(c)	42.(d)	43.(a)	44.(d)	45.(c)	46.(d)	47.(c)	48.(b)	49.(c)	50.(a)
51.(b)	52.(c)	53.(a)	54.(b)	55.(a)	56.(b)	57.(d)	58.(b)	59.(a)	60.(d)
61.(b)	62.(c)	63.(c)	64.(c)	65.(c)	66.(b)	67.(c)	68.(a)	69.(b)	70.(b)
71.(d)	72.(b)	73.(d)	74.(b)	75.(a)	76.(c)	77.(c)	78.(c)	79.(b)	80.(b)
81.(c)	82.(c)	83.(c)	84.(a)	85.(c)	86.(d)	87.(c)	88.(b)	89.(c)	90.(c)
91.(a)	92.(b)	93.(d)	94.(b)	95.(b)	96.(d)	97.(d)	98.(d)	99.(d)	100.(b)

1. (b) As a boy Pablo Picasso was handsome and talented.
2. (c) Picasso was spoilt mostly because he was the only son in the family.
3. (d) Picasso went to school only when he was allowed to carry a pet with him.
4. (a) When his father painted in the college, Pablo occasionally helped him.
5. (c) Pablo's father gave up painting because he was impressed by his son's talent.
6. (b) The correct sentence should be the boss was irritated with him for neglecting the duties and not listening to his advice.
7. (c) The correct sentence should be 'each of the three beggars was asking for more food to eat, each is often followed by a prepositional phrase ending in a plural word (Each of the cars), thus confusing the verb choice. Each is always singular and requires a singular verb. Each of the students is responsible for doing his or her work in the library.
8. (c) The correct sentence is 'My brother sent two pairs of shoes from America'.
9. (c) The correct sentence should be 'The young boy said that he liked neither me nor my wife.
10. (b) The preposition for should be replaced with on. Hence, the correct sentence should be he was congratulated on his success in the 100 m race.
11. (c) The correct option is endowed which means provided or supplied or equipped with (especially as by inheritance or nature).
12. (c) Extraneous means not pertinent to the matter under consideration.
13. (d) Endure means put up with something or somebody unpleasant.
14. (a) Credence means the mental attitude that something is believable and should be accepted as true.
15. (b) The correct filler is 'had better get'. Hence, the correct sentence should be the travellers had better get their reservations well in advance if they want to travel during the Diwali holidays.
16. (a) Emancipate means free from slavery or servitude; hence, set free is the correct option.
17. (d) The quality of being fraudulent.
18. (c) admonition means cautionary advice about something imminent (especially imminent danger or other unpleasantness).
19. (c) Vociferous may well be replaced with dangerous.
20. (a) Implicate means involve.
22. (a) Ashoka converted gradually to Buddhism beginning about 263 BCE at the latest. He was later dedicated to the propagation of Buddhism across Asia, and established monuments marking several significant sites in the life of Gautama Buddha.
23. (b) The Salt March, also mainly known as the Salt Satyagraha, began with the Dandi March on 12 March 1930. It was a direct action campaign of tax resistance and nonviolent protest against the British salt monopoly in colonial India, and triggered the wider Civil Disobedience Movement.

24. (a) The Indian Rebellion of 1857 began as a mutiny of sepoys of the East India Company's army on 10 May 1857, in the cantonment of the town of Meerut, Utar Pradesh.
25. (c) Situated further East (about 30o Longitude) than Dwaraka and the earth rotates from West to East.
26. (c) Jhelum. Srinagar is the summer capital of the Indian State of Jammu and Kashmir. It is situated in the Kashmir Valley and lies on the banks of the Jhelum River, a tributary of the Indus. The city is famous for its gardens, lakes and houseboats. It is also known for traditional Kashmiri handicrafts and dry fruits.
27. (a) Meghalaya, Assam, Nagaland, Arunachal Pradesh. Mawsynram, the wettest place on earth (annual rainfall of 1,141 cm approx), is a small village in Meghalaya's Khasi Hills near Shillong. Cherrapunji, now the second wettest place on earth, is located 10 km from Mawsynram and has the distinction of having just one season the year round - monsoon. It receives about 1,087 cm of rain annually.
28. (d) Isotherm, line drawn on a map or chart joining points with the same temperature.
29. (d) Jim Corbett National Park is the oldest national park in India and was established in 1936 as Hailey National Park to protect the endangered Bengal tiger. It is located in Nainital district of Uttarakhand(Earlier Uttaranchal) and was named after Jim Corbett who played a key role in its establishment. The park was the first to come under the Project Tiger initiative.
31. (a) Supersonic speed speed is approximately 343.2 m/s, 1,125 ft/s, 768 mph, 667 knots, or 1,235 km/h.
32. (b) Yoga sutra was written by Pathanjali.
33. (b) The National Institute of Oceanography (NIO) is one of 37 constituent laboratories of the CSIR - Council of Scientific and Industrial Research, an autonomous research organization in India. The institute has its headquarters in the coastal state of Goa i.e. Panaji, and regional centres in Kochi, Mumbai and Vizag.
35. (d) Igneous rock is formed through the cooling and solidification of magma or lava.
36. (a) Homi J. Bhabha was the eminent scientist who played a key role in the development of the Indian atomic energy program. He is also considered as the father of India's nuclear program. He also established the Atomic Energy Commission of India in 1948.
37. (d) The official mascot for the 2010 World Cup was Zakumi, an anthropomorphised African leopard with green hair, presented on 22 September 2008.
38. (d) "Wilson Jones" was the first to win the world amateur billiards title. He won this title in 1958, he won it in Sydney, Australia. He was awarded the Arjuna Award in 1962, the Padma Shri Award in 1965, and the Dronacharya Award in 1996.
39. (c) The first successful Badminton players to win the award was N.M. Natekar who won it in 1961 and Ms. Meena Shah followed him to win it in the very next year in 1962.

40. (d) The playing field is 300 yards (274 metres) long by 160 yards (146 metres) wide, the approximate area of nine American football fields. The playing field is carefully maintained with closely mowed turf providing a safe, fast playing surface. Goals are posts which are set eight yards apart, centred at each end of the field.

41. (c) Direct is different from the other three words. Direct means 'to give a formal order or command.'

42. (d) **Sprain** means 'to injure a joint in the body, especially a wrist or an ankle by suddenly twisting it so that there is pain and usually swelling.'
    Crumble means to break into very small pieces, 'to begin to fail or lose strength', "to come slowly to an end.'
    Topple means 'to move from side to side and fail, 'to cause somebody to lose their position of power and authority.
    Trimble means 'to make fall,' to move or rush in the specified direction.

43. (a) **Anonymous** means : with a name that is not known or not made public; written or given by somebody whose name is not known or revealed; having no outsanding or unusual features; not particularly noticeable.
    Alias and pseudonym refer to a name by which a person is called at other times or in other places.
    Sobriquet refers to other name of a place.

44. (d) Except Thiruvananthapuram, all others are ports.

45. (c) Except Mercury all others are organic compounds. Mercury is a metal.

46. (d) Hope is Antonym of Despair. Similarly, Encourage is Antonym of Dishearten.

47. (c) The second is necessary for the first to be successful.

48. (b) The second is the unit of the first.

49. (c) Revenge and Vendetta are synonymous. Similarly. Envy and Jealousy are synonymous.

50. (a) Style can be refined to make it more beautiful and attractive. Similarly, photograph is made beautiful by retouching it.

51. (b) **Tremble** means 'to shake from fear, cold, weakness', Perspire means 'to give out sweat through the skin'.

52. (c) **Condone** means 'to accept wrong behaviour or to treat it as if it were not serious', 'to ignore something'. The first is the act of neglecting the second.

53. (a) The second is a part of the first.

54. (b) The first is a vital part of the second.

55. (a) Nalanda ad Taxila are ancient seats of learning. Similarly, Venus and Mars are planets.

56. (b) Foot is the lower part of human's leg. Similarly, hoof is the lower part of cow's leg.

57. (d) Broad refers to spacious thing. Similarly, road is wider than lane.

58. (b) Back of a human being rests on backbone. Similarly, belly rests on ribs.

59. (a) Ankle is analogous to wrist (hand) knee is analogous to elbow.

60. (d) The first is used by the second to bite.

61. (b) If Hari's income is 20% more than Madhu, then Madhu's income is less than Hari by
$$= \left(\frac{20}{20+100} \times 10 \right) \% = 16.66\%$$

62. (c) Let P = x, S. I = x
$$\text{Rate} = \frac{SI \times 100}{P \times T} = \frac{x \times 100}{x \times 20} = 5\%$$
Now, P = x, S.I = $2x$, Rate = 5%
$$\text{Time} = \frac{SI \times 100}{P \times R} = \frac{2x \times 100}{x \times 5} = 40 \text{ yrs}$$

63. (c) $\frac{2}{3} = 0.67$

$\frac{3}{5} = 0.6$

$\frac{7}{9} = 0.7$

$\frac{9}{11} = 0.81$

$\frac{8}{9} = 0.88$

Correct ascending order
$$= \frac{3}{5} < \frac{2}{3} < \frac{7}{9} < \frac{9}{11} < \frac{8}{9}$$

64. (c) $337.62 + 8.591 + 34.4 = 380.611$

65. (c) $\frac{1}{9} + \frac{1}{6} + \frac{1}{12} + \frac{1}{72}$

$\Rightarrow \frac{8+12+6+1}{72}$

$\Rightarrow \frac{27}{72} = \frac{3}{8}$

66. (b) Numbers are 10, 15, 20, 25 and 30.

Required average $= \frac{10+15+20+25+30}{5}$
$$= \frac{100}{5} = 20$$

67. (c) Average $= \frac{(n)(n+1)}{(2) \times n}$
Where 'n' be the natural number

Therefore, average $= \frac{80 \times (80+1)}{2 \times 80}$
$$= \frac{81}{2} = 40.5$$

68. (a) $50 = \frac{\text{Sum of all numbers}}{\text{number of observations}}$

$50 = \frac{450}{\text{Number of observations}}$

Number of observations $= \frac{450}{50} = 9$

New mean $= \frac{450+100}{10} = \frac{550}{10} = 55$

$?\%$ of $932 = 309.6 - 32$

$\dfrac{?}{100} \times 932 = 279.6$

$? = 30.$

70. (b) Let the number $= x$
According to question

$x - \dfrac{2}{5}x = 510$

$\dfrac{3x}{5} = 510$

$x = \dfrac{510 \times 5}{3}$

$x = 850$

10% of $x = \dfrac{10}{100} \times 850 = 85$

71. (d) Amount of salt in the solution $= 5\%$ of $6\,l = 0.3\,l$

Percentage of salt in the remaining solution $= \dfrac{0.3}{5} \times 100$

$= 6\%$

72. (b) Let C. P. $= ₹\,100$
Then M.P. $= ₹\,120$

$\therefore$ S.P. $= \dfrac{90}{100} \times 120 = 108$

$\therefore$ Gain $\% = 8\%$

73. (d) Let C. P. $= ₹\,x$, then S.P. $= ₹\,\dfrac{4x}{3}$

Gain $= ₹\left(\dfrac{4x}{3} - x\right) = ₹\,\dfrac{x}{3}$

$\therefore$ Gain $\%\left(\dfrac{x}{3} \times \dfrac{1}{x} \times 100\right) = 33.33\%$

74. (b) Let C.P. $= ₹\,x$, S.P. $= ₹\,y$
Profit $= y - x$
According to question
Profit $=$ S.P. $-$ C.P.
$3(y - x) = 2y - x$
$3y - 3x = 2y - x$
$\Rightarrow \quad y = 2x$
Profit $= 2x - x = x$

Profit $\% = \left(\dfrac{x}{x} \times 100\right)\% = 100\%$

75. (a) Let estate cost is $₹\,x$

$\dfrac{4}{5} \times x = 16800$

$x = 21000$

Value of $\dfrac{3}{7} \times 21000 = ₹\,9000$

76. (c) $\dfrac{a}{b} = \dfrac{3}{4} \Rightarrow b = \dfrac{4}{3}a$

$8a + 5b = 22$

$8a + 5 \times \dfrac{4}{3}a = 22$

$\dfrac{24a + 20a = 66}{3}$

$44a = 66$

$a = \dfrac{66}{44} = \dfrac{3}{2}$

77. (c) $a - b = (c + d) + 6$ ...(1)
$a + b = c - d - 3$ ...(2)
Adding eq. (1) and (2)
$2a = 2c + 3$
$2a - 2c = 3$

$a - c = \dfrac{3}{2} = 1.5$

78. (c) Let the numbers are $7x$ and $8x$

$\dfrac{7x + 3}{8x + 3} = \dfrac{8}{9}$

$63x + 27 = 64x + 24$
$x = 3$
Numbers are 21 and 24

79. (b) Let the numbers are a, b and c
$a : b = 2 : 3$
$b : c = 5 : 8$
$a : b : c$
$2 : 3$
$5 : 8$
$10 : 15 : 24$
$10x + 15x + 24x = 98$
$49x = 98$
$x = 2$
Second number $= 15 \times 2 = 30$

80. (b) Sita's share $= \dfrac{9}{17} \times$ Amount

$\therefore$ Amount $= \dfrac{17 \times 4500}{9} = ₹\,8500$

81. (c) All of the components of figure (X) are present in the figure (c)
82. (c) All of the components of figure (X) are present in the figure (c)
83. (c) All of the components of figure (X) are present in the figure (c)
84. (a) All of the components of figure (X) are present in the figure (a)
85. (c) When the key figure (X) will be rotated it will look like figure (c). The three faces are in the following manner in clock wise direction.

$A \to B \to X$

96. (d) In each row, the first unit is deleted in the third unit.
97. (d) Answer figure (d) will complete the matrix.
98. (d) Answer figure (d) will complete matrix.
99. (d) Answer figure (d) will complete matrix.
100. (b) Answer figure (b) will complete matrix.