

AFCAT 2 2014 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. 1-6) : *Select the most appropriate word from the options against each number.*

Science has made an _1_ contribution to the relief of human suffering and humanity _2_ a deep _3_ of gratitude to scientists whose _4_ and sacrifices have led to many _5_ discoveries and inventions which have done so much to _6_ human pain and misery.

1. (a) excessive (b) enormous
(c) intensive (d) active
2. (a) feels (b) offers
(c) owes (d) acknowledges
3. (a) amount (b) fund
(c) loan (d) debt
4. (a) labours (b) discoveries
(c) achievements (d) successes
5. (a) strange (b) useful
(c) advantageous (d) profitable
6. (a) decrease (b) disappears
(c) alleviate (d) belittle

DIRECTIONS (Qs. 7-9) : *Read the following passage carefully and answer the questions given below it.*

Language is often used for one of the following three purposes, namely, to inform, to convince and to persuade. The first requiring talent of telling what we know, is a matter of little difficulty. The second demands reasoning. The third, besides reasoning, demands all the aid that we can obtain from the use of figures of speech or figures of rhetoric, which means the power of persuasion.

7. Rhetoric is the
(a) art of reasoning
(b) use of figure of speech
(c) power of persuasion
(d) means of communicating information
8. The art of persuasion requires the use of
(a) information and talent feels
(b) reasoning and information
(c) figure of speech
(d) reasoning and figure of speech
9. The above passage is
(a) informative (b) persuasive
(c) convincing (d) rhetorical

DIRECTIONS (Qs. 10-13) : *Choose the word which is nearest in meaning to the given word.*

10. 'LIBERALISE'
(a) Resist (b) Change
(c) Function (d) Malfunction
11. 'PRAGMATIC'
(a) Theoretical (b) Suitable
(c) Realistic (d) Productive
12. 'PRISTINE'
(a) Fresh (b) Old
(c) Preserve (d) Dirty
13. 'INTREPID'
(a) Middle (b) Tolerant
(c) Rude (d) Fearless

DIRECTIONS (Qs. 14-17) : *Choose the word which is nearly opposite in meaning to the given word.*

14. 'ANGELICAL'
(a) Magnanimous (b) Benlvolent
(c) Diabolical (d) Critical
15. 'HAUGHTINESS'
(a) Affability (b) Unskilled
(c) Adduce (d) Abject
16. 'Bellow'
(a) Tout (b) Whisper
(c) Stupour (d) Down
17. 'INEQUITY'
(a) Law (b) Illegal
(c) Slander (d) Libel

DIRECTIONS (Qs. 18-21) : *Choose the word that best defines the given phrase.*

18. Tickled pink
(a) Greatly pleased (b) Coloured
(c) Deeply upset (d) Embarrassed
19. Split one's side
(a) Intense pain (b) To laugh a lot
(c) To be hurt (d) None of the above
20. Building castles in the air
(a) Making impossible plans
(b) Making tall promises
(c) Building skyscrapers
(d) Structures without strong foundation

21. At the drop of a hat
 (a) Willingly and softly
 (b) Willingly and immediately
 (c) Willingly and silently
 (d) Slowly and silently

DIRECTIONS (Qs. 22-25) : Choose the correctly spelt word.

22. (a) Parentheses (b) Parenthesis
 (c) Parentesis (d) Parenthes
 23. (a) Verstile (b) Versatile
 (c) Versetile (d) Versatele
 24. (a) Hemorrhage (b) Hemorrhage
 (c) Haemorrhage (d) Hemorrhage
 25. (a) Vetnerinarian (b) Veterinarian
 (c) Vetrinarian (d) Veterinarian

DIRECTIONS (Qs. 26-29) : Which word or words explains the meaning of the following idioms :

26. Airy- Fairy
 (a) Most important (b) Nervous
 (c) Not practical (d) Confident
 27. Be given the axe
 (a) To move fast (b) Carpenter
 (c) Woodcutter (d) To lose job
 28. To go like a bomb
 (a) Loud explosion (b) To move fast
 (c) Terrorism (d) Not practical
 29. Bolt from the blue
 (a) Unexpected (b) Lighting
 (c) Nervous (d) Sudden

DIRECTIONS (Qs. 30-65) : Choose the most appropriate answer:

30. Which of the following rulers had the title 'Kaviraja'
 (a) Kumaragupta (b) Chandragupta
 (c) Skandagupta (d) Samudragupta
 31. The Viceroy who divided Bengal by following the divide and rule policy was:-
 (a) Lord Curzon (b) Lord Ripon
 (c) Lord Lytton (d) Lord Mayo
 32. The right to vote in the national elections in India is based on the principle of
 (a) Restricted franchise
 (b) Hereditary privileges
 (c) Property qualifications
 (d) Universal adult suffrage
 33. Algae often float on surface of water during day but sink during night due to :
 (a) evolution and trapping of oxygen bubbles during the day in their photosynthesis process
 (b) Becoming light as they consume most of their food in the night
 (c) warming action of sun during the day
 (d) Release of absorbed air by warming of water
 34. Who is the author of 'Train to Pakistan':-
 (a) Arun Shourie (b) J.N. Dixit
 (c) Khushwant Singh (d) Ismat Chughtai
 35. On which river is Berlin city situated ?
 (a) Potomac (b) Irrawaddy
 (c) Rhine (d) Spree

36. The commonwealth Games Relay Baton has traditionally contained ?
 (a) sand from the last host city
 (b) a message from the Head of the Commonwealth
 (c) The commonwealth Games Motto
 (d) sand from each competing nation
 37. Who was the first woman to climb Mount Everest ?
 (a) Junko Tabei (b) Tenzing Norgay
 (c) Aarti Pradhan (d) Bachendri Pal
 38. Who founded the Asiatic Society of Bengal in Kolkata?
 (a) Warren Hastings (b) John Shore
 (c) Sir William Jones (d) Lord Cornwallis
 39. When is the World Poetry Day recognized by the UNESCO observed ?
 (a) 02 February (b) 30 December
 (c) 21 March (d) 14 February
 40. In which respect have the Centre-State relations been specifically termed as municipal relations ?
 (a) Centre's control of the State in the legislative sphere
 (b) Centre's control of the State in Financial matter
 (c) Centre's control of the State in the administrative sector
 (d) Centre's control of the State in the planning process
 41. The youngest mountain range in the world is:-
 (a) Himalayas (b) Alps
 (c) Andes (d) Rockies
 42. Who was the first Commander in chief of Indian Air Force in Independent India ?
 (a) Gen KM Kariyappa
 (b) Field Marshal Sam Manekshaw
 (c) Major Stringer Lawrence
 (d) Thomas Walker Elmhirst
 43. What is the splash and burn agriculture in Indonesia called as ?
 (a) Jhoom cultivation (b) Roke cultivation
 (c) Milpa cultivation (d) Ladang cultivation
 44. Which theory gave birth to the French Revolution and the Revolution in America ?
 (a) Legal theory of rights
 (b) Theory of natural rights
 (c) Social welfare theory
 (d) Historical theory of rights
 45. 38th parallel is a boundary line between _____
 (a) United States and Canada
 (b) Pakistan and India
 (c) Turkey and Cyprus (d) South and North Korea
 46. 'Satyameva Jayate' is borrowed from which of the following ?
 (a) Mundaka Upanishad (b) Mahabharat
 (c) Ramayana (d) Arthshashtra
 47. Two-third of a consignment was sold at a profit of 5% and the remainder at a loss of 2% if the total profit was ₹400, what was the value of the consignment ?
 (a) ₹13,000/- (b) ₹17,000/-
 (c) ₹15,000/- (d) ₹40,000/-

48. 7 is added to a certain number, the sum is multiplied by 5; the product is divided by 9 and 3 is subtracted from the quotient. The remainder left is 12. What is the number ?
 (a) 20 (b) 30
 (c) 40 (d) 5
49. A train covers a distance of 10 km in 12 minutes. If its speed is decreased by 5 kmph, what is the time taken train to cover the same distance ?
 (a) 14 min. 33 sec (b) 13 min. 33 sec
 (c) 13 min. 20 sec (d) 15 min. 20 sec
50. 'A' is thrice as good a workman as 'B' and takes 10 days less to do a piece of work than 'B' takes. How many days will 'B' take to complete if he works alone ?
 (a) 21 days (b) 15 days
 (c) 18 days (d) 24 days
51. In Arun's opinion his weight is greater than 65 kg but less than 72 kg. His brother does not agree with Arun and he thinks that Arun's weight is greater than 60 kg but less than 70 kg. His mother's view is that his weight cannot be greater than 68 kg. If all of them are correct in their estimation, what is the average of different probable weights of Arun ?
 (a) 71 kg (b) 66 kg
 (c) 66 kg (d) 68 kg
52. In three annual examinations' of which the aggregate marks of each was 500, a student secured average marks 45% and 55% in the first and the second yearly examinations respectively. To secure 60% average total marks, it is necessary for him in third yearly examination to secure _____ marks.
 (a) 300 (b) 350
 (c) 355 (d) 400
53. A towel was 50 cm broad and 100 cm long. When bleached, it was found to have lost 20% of its length and 10% of its breadth. Find the percentage of decrease in area ?
 (a) 32% (b) 28%
 (c) 33% (d) 24%
54. How many digits will be there to the right of the decimal point in the product of 95.75 and 0.02554?
 (a) 5 (b) 6
 (c) 7 (d) Insufficient data
55. 'A' and 'B' can do a piece of work in 30 days while 'B' and 'C' can do the same work in 24 days and 'C' and 'A' in 20 days. They all work for 10 days and 'B' and 'C' leave. How many days more will 'A' take to finish the work ?
 (a) 12 days (b) 18 days
 (c) 20 days (d) 22 days
56. A factory employs skilled workers, unskilled workers and clerks in the proportion 8: 5: 1 and the wages of a skilled worker as unskilled worker and a clerk are in the ratio 5 : 2 : 3. When 20 unskilled workers are employed, the total daily wages of all, amount to ₹ 318. What is the daily wages in ₹ paid to each category of employees ?
 (a) 240,57,19 (b) 210,70,13
 (c) 230,65,12 (d) 240,60,18
57. A cat takes 5 leaps for every 4 leaps of a dog, but 3 leaps of the dog are equal to 4 leaps of the cat. What is the ratio of the speed of the cat to that of the dog ?
 (a) 13 : 14 (b) 15 : 11
 (c) 17 : 15 (d) 15 : 16
58. Ram Shiv and Ganesh assemble for a contributory party. Ram brings 3 apples while Shiv brings 5. Since Ganesh did not bring any, he contributed ₹8/-. How many rupees should Ram and Shiv respectively get, assuming each of the three consumes an equal portion of the apples ?
 (a) 1, 7 (b) 2, 5
 (c) 5, 3 (d) 2, 6
59. A man deposited a total sum of ₹ 88400/- in the name of his two sons aged 19 and 17 years so that at the age of 21, both will get equal amounts. If the money is invested at the rate of 10% compound interest per annum what are the shares of his two sons ?
 (a) ₹48200/- (b) ₹48400
 (c) ₹42600/- (d) ₹44200
60. A train is moving at a speed of 132 kmph. If the length of the train is 110 meters, how long will it take to cross a railway platform 165 m long ?
 (a) 6.0 secs (b) 7.5 secs
 (c) 7.0 secs (d) 8.5 secs
61. The sum of the number of boys and girls in a school is 150. If the number of boys is x, then the number of girls becomes x% of the total number of students. How many boys are there in the school ?
 (a) 51 (b) 65
 (c) 60 (d) 95
62. 'A' scored 30% marks and failed by 15 marks. 'B' scored 40% marks and obtained 35 marks more than those required to pass what is the pass percentage ?
 (a) 33% (b) 40%
 (c) 34% (d) 48%
63. A banker lent ₹6000/- at 10% and ₹5000/- at 12% at the same time and for same period of time. The banker received ₹2400 as total interest on both loans. Find the period for which the banker had lent the amount.
 (a) 3 years 6 months (b) 3 years
 (c) 2 years 6 months (d) 2 years
64. Two pipes 'A' and 'B' can fill a tank in 20 and 30 minutes respectively. If both the pipes are used together, then how long are will it take to fill the tank ?
 (a) 12 min. (b) 15 min.
 (c) 25 min. (d) 50 min.
65. Speed of a boat in still water is 9 Kmph and the speed of the stream is 1.5 Kmph. A man rows to a place at a distance of 105 Kms and comes back to the starting point. What will be the total time taken by him ?
 (a) 16 Hrs (b) 18 Hrs
 (c) 24 Hrs (d) 28 Hrs

DIRECTIONS (Qs. 66-70) : Each of these questions given below contains three elements. These elements may or may not have some inter-linkage. Each group of elements may fit into one of these diagrams at (a), (b), (c) or (d). You have to indicate the group of elements which correctly fits into the diagrams.

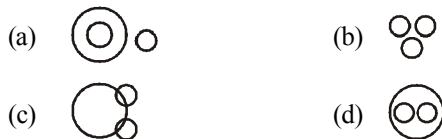
66. Which of the following diagrams indicates the best relation between Judge, Thieves and Criminals ?



67. Which of the following diagrams indicates the best relation between India, Haryana and World ?



68. Which of the following diagrams indicates the best relation between Pigeon, Bird and Dog ?



69. Which of the following diagrams indicates the best relation between Earth, Sea and Sun ?



70. Which of the following diagrams indicates the best relation between Hockey, Football and Cricket ?



DIRECTIONS (Qs. 71-75) : In each of the following questions find out the alternative which will replace the question mark :

71. Carbon : Diamond : Corundum : ?

- (a) Garnet (b) Ruby
(c) Pukhraj (d) Pearl

72. Architect : Building : Sculptor : ?

- (a) Museum (b) Stone
(c) Chisel (d) Statue

73. Eye : Myopia : Teeth : ?

- (a) Pyorrhoea (b) Cataract
(c) Trachoma (d) Eczema

74. Conference : Chairman : Newspaper : ?

- (a) Reporter (b) Distributor
(c) Printer (d) Editor

75. Safe : Secure : Protect : ?

- (a) Lock (b) Sure
(c) Guard (d) Conserve

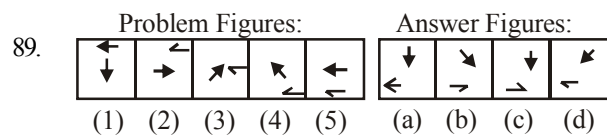
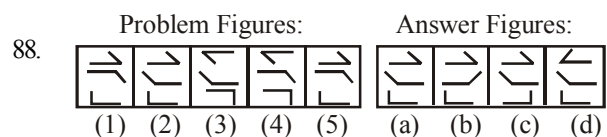
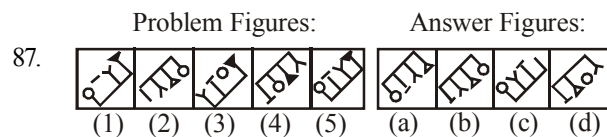
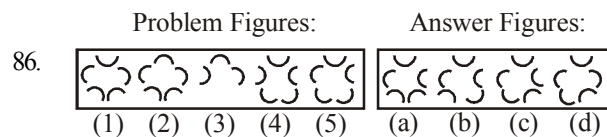
DIRECTIONS (Qs. 76-80) : In each of the following questions, five words have been given out of which four are alike in some manner, while the different fifth one is choose the word which is different from the rest :

76. (a) Potassium (b) Silicon
(c) Zirconium (d) Gallium
77. (a) Tea (b) Cinchona
(c) Rubber (d) Chalk
78. (a) Hanger (b) Platform
(c) Dock (d) Park
79. (a) Deck (b) Quay
(c) Stern (d) Bow
80. (a) Tall (b) Huge
(c) Thin (d) Sharp

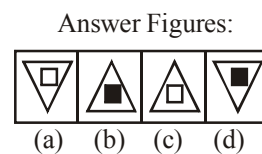
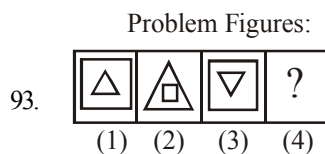
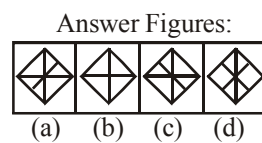
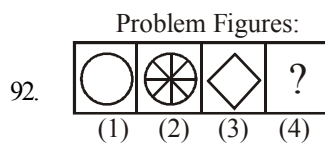
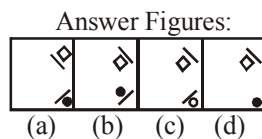
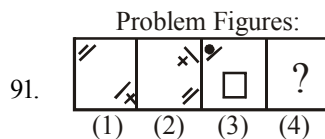
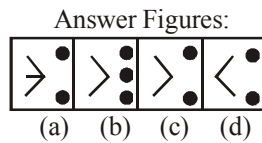
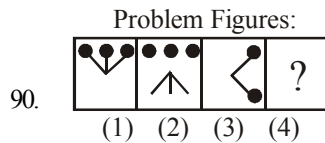
DIRECTIONS (Qs. 81-85) : Choose the most appropriate answer.

81. Which one of the following is always with 'Bargain'?
(a) Exchange (b) Sumptuousness
(c) Triviality (d) Eloquence
82. Which one of the following a 'Drama' must have?
(a) Actors (b) Story
(c) Sets (d) Director
83. A boy is sitting at the back seat of a car. When the driver suddenly start moving the car (in forward direction) the boy experiences a backward force ?
(a) Always (b) Never
(c) Often (d) Sometimes
84. Which one of the following is always found in 'Wonder'?
(a) Crowd (b) Lumber
(c) Astonishment (d) Rustic
85. 'Disclosure' always involves
(a) Agents (b) Display
(c) Exposition (d) Secrets

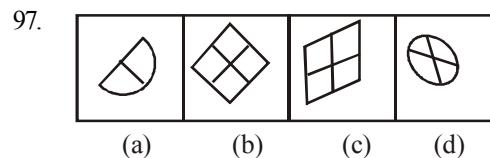
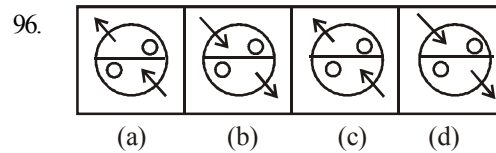
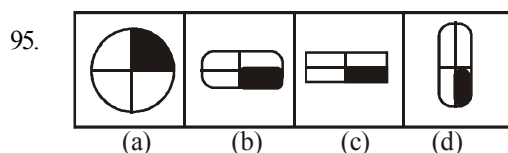
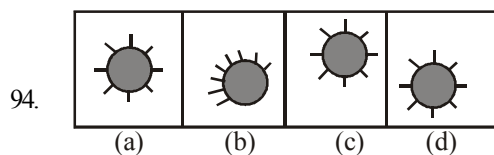
DIRECTIONS (Qs. 87-89) : Each of the following questions consists of five figures marked 1, 2, 3, 4 and 5 called the Problem Figures followed by four other figures marked a, b, c and d called the Answer Figures. select a figure from amongst the answer Figures which will continue the same series as established by the five Problem Figures.



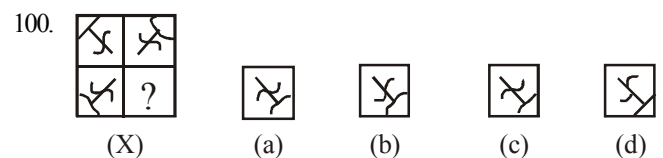
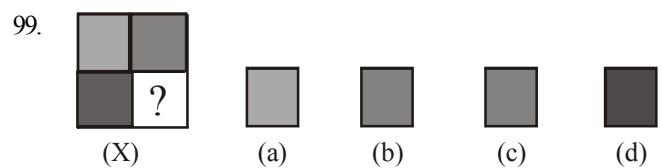
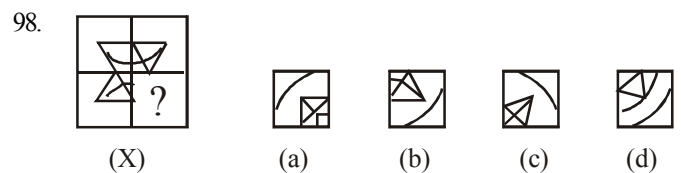
DIRECTIONS (Qs. 90-93) : Each of the following questions consists of two sets of figures. Figures 1, 2, 3 and 4 constitute the problem set while figures (1) and (2). Establish a similar relationship between figures (3) and (4) by selecting a suitable figure from the Answer set that would replace the question mark (?) in fig. (4).



DIRECTIONS (Qs. 94-97) : In each problem, out of the four figures marked (a) (b) (c) (d) three are similar in a certain manner. However, one figure is not like the other three. Choose the figure which is different from the rest.



DIRECTIONS (Qs. 98-100) : In each of the following questions, select a figure from amongst the four alternatives which when placed in the blank space of figure (X) would complete the pattern :



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

7. (c) Rhetoric is the power of persuasion.
8. (d) The art of persuasion requires the use of reasoning and figure of speech.
10. (b) Liberalise - remove or loosen restrictions on something. Hence, option (b) is correct choice.
11. (c) Pragmatic - of or relating to a practical point of view or practical considerations. Hence, option (c) is correct choice.
12. (a) Pristine - in its original condition; unspoiled; clean and fresh as if new; spotless. Hence, option (a) is correct choice.
13. (d) Intrepid means fearless; adventurous. Hence, option (d) is correct choice.
14. (c) Meaning of angelical - having a sweet nature befitting an angel or cherub. Meaning of Diabolical - concerning, or characteristic of the devil; satanic. Hence, antonym of angelical is diabolical.
15. (d) Meaning of haughtiness - the appearance or quality of being arrogantly superior and disdainful.
16. (b) Meaning of bellow - a deep roaring shout or sound. Meaning of whisper - a soft or confidential tone of voice. Hence, antonym of bellow is whisper.
17. (a) Meaning of inequity - lack of fairness or justice. Antonym for inequity is law according to given options.
18. (a) Tickled pink - very much pleased or entertained. So, (a) is the correct choice.
19. (b) Split one's sides or laugh one's head off - be extremely amused, laugh uproariously. So, (b) is the correct choice.
20. (a) Build castles in the air or build castles in Spain - to daydream; to make plans that can never come true. So, (a) is the correct choice.
21. (b) At the drop of a hat - immediately; instantly; on the slightest signal or urging. So, (b) is the correct choice.
22. (a) Parentheses. It's a plural form of parenthesis.
26. (c) Airy-fairy means not practical or not useful in real situations. Hence, (c) is the correct choice.
27. (d) Get the axe or also be given the axe means if a person gets the axe, they lose their job. Hence, (d) is the correct choice.
28. (b) Go like a bomb means if a vehicle goes like a bomb, it can move very fast. Hence, (b) is the correct choice.
29. (d) A bolt from the blue or also a bolt out of the blue means something that not expected to happen and that surprises someone very much. Hence, (d) is the correct choice.
30. (d) Samudragupta, ruler of the Gupta Empire (c. 335 - c. 375 CE), and successor to Chandragupta I, is considered to be one of the greatest military geniuses in Indian history. He was the third ruler of the Gupta Dynasty, who ushered in the Golden Age of India. His title of Kaviraja (King of poets) is justified by various poetical compositions.
31. (a) The decision to effect the Partition of Bengal was announced in July 1905 by the Viceroy of India, Lord Curzon. The partition took place in October 1905 and separated the largely Muslim eastern areas from the largely Hindu western areas.
32. (d) The democratic system in India is based on the principle of Universal Adult Suffrage. All citizens of India who are 18 years of age as on 1st January of the year for which the electoral roll is prepared are entitled to be registered as a voter in the constituency where he or she ordinarily resides. Only persons who are of unsound mind and have been declared so by a competent court or disqualified due to 'Corrupt Practices' or offences relating to elections are not entitled to be registered in the electoral rolls. The right to vote is irrespective of caste, creed, religion or gender.
33. (a) The reason of algae float to the surface during the day & sink at night is due to photosynthesis. In Day time, the algae is producing oxygen. When enough Oxygen is produced during the day, it gets trapped in bubbles and it can lift the clumps up to the surface. In night, this oxygen is consumed and CO₂ is produced. So algae sinks.

34. (c) Train to Pakistan is a historical novel by Khushwant Singh, published in 1956. It recounts the Partition of India in August 1947. Instead of depicting the Partition in terms of only the political events surrounding it, Singh digs into a deep local focus, providing a human dimension which brings to the event a sense of reality, horror, and believability.
35. (d) Berlin is the capital city of Germany. Berlin is located in northeastern Germany on the River Spree, it is the center of the Berlin-Brandenburg Metropolitan Region.
36. (b) The Queen's Baton Relay is one of the great traditions of the Commonwealth Games, having started at the Games in Cardiff, Wales, in 1958. The Baton is now as much a part of the Commonwealth Games tradition as the torch is part of the Olympics. The relay traditionally begins with a commencement ceremony at Buckingham Palace, London, which coincides with the city's Commonwealth Day festivities. There Her Majesty Queen Elizabeth II entrusts the baton containing Her 'message to the athletes' to the first honorary relay runner. The relay concludes at the Opening Ceremony, as the final relay runner hands the baton back to Her Majesty, or Her representative, and the message is read aloud. At that moment the Games begin.
37. (a) Junko Tabei is a Japanese mountain-climber who, on May 16, 1975, became the first woman to reach the summit of Mount Everest.
38. (c) The Asiatic Society was founded by Sir William Jones on 15 January 1784 in a meeting presided over by Sir Robert Chambers, the Chief Justice of the Supreme Court at the Fort William in Calcutta, then capital of the British Raj, to enhance and further the cause of Oriental research.
39. (c) In November 1999, UNESCO designated World Poetry Day to be held on March 21 each year. The organization recognized the important role of poetry in the arts and in cultures throughout the world and over time. It also wanted the day to promote the efforts of small publishers with regard to publishing poetry.
40. (d) Central control of the State in the planning process.
41. (a) Himalayas is one of the youngest mountain ranges in the world, situated in the northern border of India and spread across six Asian countries -India, Pakistan, Bhutan, Afghanistan, China and Nepal. The Himalayas contains some of the highest peaks in the world that includes Mount Everest, Karakoram and Kanchenjunga.
42. (d) Air Marshal Sir Thomas Walker Elmhist was the first Commander-in-Chief of the Indian Air Force. He was Air Chief from 15 August 1947 to 21 February 1950. It was Air Marshal Elmhist, who insisted that the Indian Air Force be an independent service under no control of the Army.
43. (a) In Indonesia the 'splash and burn agriculture' is called as jhum cultivation.
44. (b) Theory of natural rights gave birth to the French Revolution and the Revolution in America.
45. (d) The 38th parallel north is a circle of latitude that is 38 degrees north of the Earth's equatorial plane. It crosses Europe, the Mediterranean Sea, Asia, the Pacific Ocean, North America, and the Atlantic Ocean. The 38th parallel north formed the border between North and South Korea prior to the Korean War.
46. (a) Satyameva Jayate is a mantra from the ancient Indian scripture Mundaka Upanishad. Upon independence of India, it was adopted as the national motto of India. It is inscribed in Devanagari script at the base of the national emblem. The emblem and the words "Satyameva Jayate" are inscribed on one side of all Indian currency. The emblem is an adaptation of the Lion Capital of Ashoka which was erected around 250 BC at Sarnath, near Varanasi in the north Indian state of Uttar Pradesh.
47. (c) Let value of consignment was ₹ x
- $$\left(\frac{2}{3}\right)^{\text{rd}} \text{ consignment costs } \frac{2x}{3}$$
- $$\text{Selling price of } \left(\frac{2}{3}\right)^{\text{rd}} \text{ consignment}$$
- $$= \frac{2x}{3} + \frac{5}{100} \times \frac{2x}{3} = \frac{7}{10}x$$
- $$\text{S.P of } \left(\frac{1}{3}\right)^{\text{rd}} \text{ consignment} = \frac{x}{3} - \frac{2}{100} \times \frac{x}{3} = \frac{49}{150}x$$
- $$\text{Total S.P} = \frac{49x}{150} + \frac{7x}{10} = \frac{49x + 105x}{150} = \frac{154x}{150}$$
- $$\text{Profit} = \text{S.P} - \text{C.P}$$
- $$400 = \frac{154x}{150} - x = \frac{4x}{150}$$
- $$x = \frac{400 \times 150}{4} = 15000$$
- $$\text{Value of consignment was ₹ } 15,000$$
48. (a) Let the number be x
- $$\frac{5(7+x)}{9} - 3 = 12$$
- $$\frac{5(7+x)}{9} = 15$$
- $$7+x = \frac{15 \times 9}{5} = 27$$
- $$x = 27 - 7 = 20$$

49. (c) Speed of train = $\frac{10\text{km}}{12/60\text{h}} = 50\text{km/h}$
Speed is decreased by 5 kmph then new Speed of the train will be 45 kmph

$$\text{Time taken to cover 10 km, } t = \frac{10}{45} = \frac{2}{9}\text{h}$$

Time taken = 13min. 20 sec

50. (b) Let A finish the work in x days
B finish same work in $3x$ days
 $3x - x = 10 \Rightarrow x = 5$ days
B finish the work in $3 \times 5 = 15$ days
51. (c) Let Arun's weight be x kg
According to Arun, $65 < x < 70$
According to Arun's brother, $60 < x < 70$
According to Arun's mothers, $x < 68$
The value satisfying all the above Conditions are 66 and 67

$$\therefore \text{ Required average} = \left(\frac{66+67}{2} \right) = 66.5\text{kg}$$

52. (d) Let in third yearly examination he Secure $x\%$

$$\text{Then, } \frac{45+55+x}{3} = 60$$

$$100+x=180$$

$$x=80$$

To secure 60% average, he has to get 80%

$$80\% \text{ of } 500 = \frac{80}{100} \times 500 = 400 \text{ marks}$$

53. (b) Area of towel = $l \times b = 100\text{cm} \times 50\text{cm} = 5000\text{cm}^2$
Now, length decreased by 20% and breadth decreased by 10%
 $l = 100 - 20\% \text{ of } 100 = 80\text{cm}$
 $b = 50 - 10\% \text{ of } 50 = 45\text{cm}$
New area = $l \times b = 80\text{cm} \times 45\text{cm} = 3600\text{cm}^2$
Change in area = $(5000 - 3600)\text{cm}^2 = 1400\text{cm}^2$

$$\% \text{ change in area} = \frac{1400}{5000} \times 100 = 28\%$$

54. (b) $95.75 \times 0.02554 = 2.445455$
There are 6 digits to the right of the decimal point in the product of 95.75 and 0.02554.
55. (b) Let A, B and C individually complete the work in x, y and z days respectively.

$$\frac{1}{x} + \frac{1}{y} = \frac{1}{30} \quad \dots(1)$$

$$\frac{1}{y} + \frac{1}{z} = \frac{1}{24} \quad \dots(2)$$

$$\frac{1}{z} + \frac{1}{x} = \frac{1}{20} \quad \dots(3)$$

$$2 \left(\frac{1}{x} + \frac{1}{y} + \frac{1}{z} \right) = \frac{1}{8} \Rightarrow \frac{1}{x} + \frac{1}{y} + \frac{1}{z} = \frac{1}{16} \quad \dots(4)$$

A, B and C together complete the work in 16 days.

$$\text{In 10 days they completed } \frac{10}{16} = \frac{5}{8} \text{ Part}$$

$$\text{Remaining work} = 1 - \frac{5}{8} = \frac{3}{8}$$

Subtracting equ (2) from (4)

$$\text{we get, } \frac{1}{x} = \frac{1}{48} \text{ or } x = 48$$

A alone can finish the Remaining work in

$$\frac{3}{8} \times 48 = 18 \text{ days}$$

56. (d) Skilled workers : Unskilled workers : Clerks = 8:5:1
Ratio of the respective wages = 5:2:3
Hence, the amount must be paid in the ratio
 $8 \times 5 : 5 \times 2 : 1 \times 3 = 40 : 10 : 3$
Sum of the ratios = $40 + 10 + 3 = 53$
If the total amount is ₹ 53, the skilled workers get ₹ 40.
If the total amount is ₹ 318, the skilled worker will get

$$= \frac{40}{53} \times 318 = ₹ 240$$

$$\text{Unskilled workers get} = \frac{10}{53} \times 318 = ₹ 60$$

$$\text{and clerk get} = \frac{3}{53} \times 318 = ₹ 18$$

57. (d) 3 leaps of dog = 4 leaps of cat
 $\therefore 4 \text{ leaps of dog} = \frac{16}{3} \text{ leaps of cat}$
 $\therefore \text{ the rate of dog : rate of cat} = \frac{16}{3} : 5 = 16 : 15$
rate of cat : rate of dog = 15:16

58. (a) Each one receive $\frac{8}{3}$ apple

$$\text{Ram gave} = 3 - \frac{8}{3} = \frac{1}{3} \text{ apple}$$

$$\text{Shiv gave} = 5 - \frac{8}{3} = \frac{7}{3} \text{ apples}$$

$$\therefore \text{ Ram : Shiv} = \frac{1}{3} : \frac{7}{3} = 1 : 7$$

$$\text{Ram got} = 8 \times \frac{1}{8} = ₹ 1$$

$$\text{Shiv got} = 80 \times \frac{7}{8} = ₹ 7$$

59. (b) Let son aged 19 years getting ₹x and son aged 17 years getting (88400 - x).

At the age of 21, both will get equal amount

$$x\left(1 + \frac{10}{100}\right)^2 = (88400 - x)\left(1 + \frac{10}{100}\right)^4$$

$$\Rightarrow \frac{121x}{100} = (88400 - x) \times \frac{121}{100} \times \frac{121}{100}$$

$$\Rightarrow 100x = 88400 \times 121 - 121x$$

$$\Rightarrow 221x = 88400 \times 121$$

$$\Rightarrow x = \frac{88400 \times 121}{221} = 48400$$

$$x = ₹48400$$

60. (b) Speed of train = 132 kmph = $132 \times \frac{5}{18}$ m/s = $\frac{110}{3}$ m/s

$$\text{Total distance} = 110\text{m} + 165\text{m} = 275\text{m}$$

$$\text{Time taken to cover the distance} = \frac{275 \times 3}{110} = 7.5\text{s.}$$

61. (c) If number of boys is x, then number of girls is (150 - x)
(150 - x) = x % of 150

$$150 - x = \frac{x}{100} \times 150 = \frac{3x}{2}$$

$$\Rightarrow \frac{5x}{2} = 150$$

$$\Rightarrow x = \frac{150 \times 2}{5} = 60$$

Number of boys is 60

62. (a) Difference in percentage of A and B = (40 - 30) = 10%

Difference in marks = 50

Let maximum marks be x

$$10\% \text{ of } x = 50 \Rightarrow x = \frac{50 \times 100}{10} = 500$$

A scored 30% of 500 means 150 marks

minimum marks required to pass = 150 + 15 = 165

$$\text{Pass \%} = \frac{165}{500} \times 100 = 33\%$$

63. (d) Let time period be x years

$$\frac{6000 \times 10 \times t}{100} + \frac{5000 \times 12 \times t}{100} = 2400$$

$$\Rightarrow 600t + 600t = 2400$$

$$\Rightarrow t = \frac{2400}{1200} = 2$$

Time period is 2 years.

64. (a) In one minute A can fill $\left(\frac{1}{20}\right)^{\text{th}}$ Part

In one minute B can fill $\left(\frac{1}{30}\right)^{\text{th}}$ Part

In one minute A and B together can fill

$$\frac{1}{20} + \frac{1}{30} = \left(\frac{1}{12}\right)^{\text{th}} \text{ Parts}$$

A and B together can fill the tank in 12 minutes

65. (c) Speed of upstream = 9 - 1.5 = 7.5 Kmph

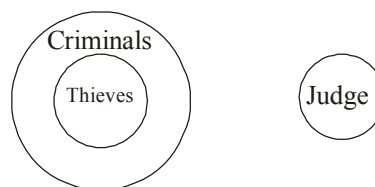
Speed of down stream = 9 + 1.5 = 10.5 Kmph

$$\text{Time taken for up stream} = \frac{105}{7.5} = 14\text{h}$$

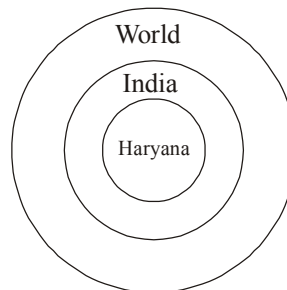
$$\text{Time taken for down stream} = \frac{105}{7.5} = 10\text{h}$$

$$\text{Total time taken} = 10 + 14 = 24 \text{ hours}$$

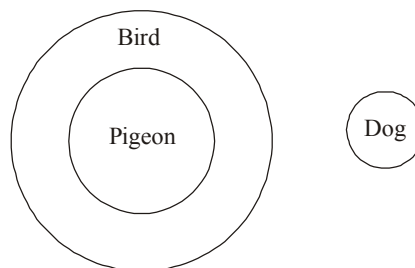
66. (b)



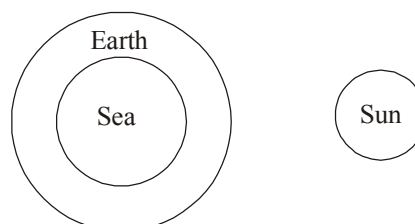
67. (d)

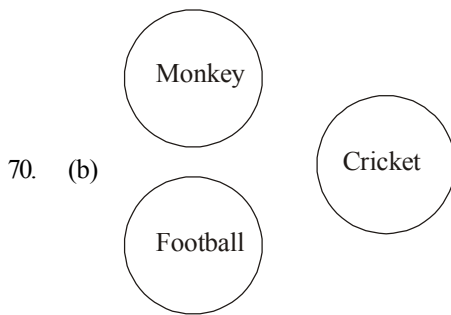


68. (a)



69. (a)





71. (b) Carbon is a chemical element found in diamond. Similarly, corundum is a form of alumina found in ruby.
72. (d) An architect is a person whose job is designing building similarly, sculptor is a person whose job is creating statue.
73. (a) Myopia is a disease of eye. Similarly, Pyorrhoea is a disease of teeth.
74. (d) A chairman is a person who is in charge of a conference. Similarly, an editor is a person who is in charge of a Newspaper.
76. (a) All except potassium are metal used in semiconductor devices.
77. (d) All except chalk are obtained from crops.
78. (d) All others, except park are halting places where aeroplanes, ships and trains are kept.
79. (b) All except quay are parts of a ship.
80. (d) All except sharp are related to dimension
81. (a) Bargain is a thing bought for less than the usual price.
82. (b) A drama can not be performed without a story.
83. (a) It occurs due to inertia of rest. When a car suddenly starts the lower part of the boy's body will be in the motion while his upper will be at rest.

84. (c) Astonishment is a feeling of very great surprise.
85. (d) A disclosure always has secrets.
87. (b) The whole figure inverts alternatively upside and downside
- φ figure which is 4th position in problem figure 1 change its position 1st, 2nd, 3rd, 4th and again 1st places.
 - T figure shifts 1st and 2nd place alternatively.
 - Y figure goes from 2nd to 3rd, 3rd to 4th, 4th to 1st and 1st to 2nd
 - T figure shifts 3rd and 4th place alternatively.
88. (a)
- • change its directions after 2nd step, so (d) is eliminated.
 - ↘ • changes its direction after 1st step and then 2nd step so, (b) is eliminated.
 - └ • changes its direction after 2nd step so (c) is eliminated.
- Hence, (a) is the answer.
89. (a) Upper arrow becomes half and rotates clockwise by 45° middle arrow rotates anticlockwise by 45° .
90. (c) Dots remain on the same place, the rest figures become inverted.
91. (b) Upper figure (=) shifts diagonally opposite direction. Bottom figure (m) shifts 90° anticlockwise and becomes inverted.
92. (a) The whole figure is divided into eight sections.
93. (d) The inner figure becomes outer and outer becomes inner and gets shading.
94. (c)
95. (a) In all other figures bottom right corners have been shaded.
96. (b) Arrows are not in the same direction.
97. (a) All others have four parts.