



SYMBIOSIS NATIONAL APTITUDE TEST (SNAP) 2011

Instructions:

This test is divided into the following sections

Sections	Total Marks	No. of Questions
Analytical & Logical Reasoning	60	30
General Knowledge	40	40
General English	40	40
Quantitative & Data Interpretation & Data Sufficiency	40	40
Total	180	150

***For every wrong answer, you will score 25% negative marks. You will be given 120 minutes to complete the test.**



SECTION I ANALYTICAL & LOGICAL REASONING

For all questions in this section, correct answers carry 2 mark each.

Directions for questions 1 and 2: Refer to the following data and answer the questions that follow:

Each question consists of a set of numbered statements. Assume that each one of these statements is individually true. Each of the four choices consists of a subset of these statements. Choose the subset as your answer where the statements therein are logically consistent among themselves:

- 1.
- A. Only if the water level in the coastal areas rises, then the people change their lifestyle.
 - B. People change their lifestyle only if they are rewarded.
 - C. If people are rewarded, then they will not change their lifestyle.
 - D. If the temperature rises, then the water level in the coastal areas rises.
 - E. Whenever the water level in the coastal areas rises, then the temperature rises.
 - F. Unless the people change their lifestyle, temperature rises.
 - G. People are rewarded.
 - H. Water level in the coastal area does not rise.
- (a) C, D, F, G and H (b) G, F, D, B and H
(c) E, F, G, H and B (d) None of the above
- 2.
- A. If Kumar sings, then the audience sleep.
 - B. If Kumar sings, then the audience dances.
 - C. Unless audience do not dance, the concert will be successful.
 - D. Only if audience dances, the concert will be successful.
 - E. If Vina dances, then Kumar sings.
 - F. Kumar sings, only if Vina dances.
 - G. Vina dances.
 - H. The concert is successful.
- (a) C, F, G, B and H (b) A, C, F, G and H
(c) E, C, G, B and H (d) Both (b) and (c)



Directions for questions 3 to 5: Refer to the following data and answer the questions that follow:

There are only four members of a family viz., A, B, C and D and there is only one couple among them. When asked about their relationships, following were their replies:

- a. A: B is my son. D is my mother.
- b. B: C is my wife. D is my father.
- c. C: D is my mother-in-law. A is my daughter.
- d. D: A is my grand-daughter. B is my daughter-in-law.

3. Who always speaks the truth?

- (a) A
- (b) B
- (c) C
- (d) D

4. How is B related to C?

- (a) Father
- (b) Mother
- (c) Wife
- (d) Husband

5. Which of the following statements must be true?

- (a) A's grandmother alternates between the truth and lie.
- (b) C's wife always speak the truth.
- (c) A's grandfather always speaks the truth.
- (d) B's daughter always tells lies.

Directions for questions 6 to 8: Refer to the following data and answer the questions that follow:

A cube of $7\text{ cm} \times 7\text{ cm} \times 7\text{ cm}$ is kept in the corner of a room and painted in three different colours, each face in one colour. The cube is cut into 343 smaller but identical cubes.

6. How many smaller cubes do not have any face painted?

- (a) 125
- (b) 180
- (c) 144
- (d) 216

7. How many smaller cubes have exactly one colour on them?

- (a) 108
- (b) 72



- (c) 36 (d) 24

8. How many smaller cubes have at the most two faces painted?

- (a) 343 (b) 342
(c) 256 (d) 282

Directions for questions 9 and 10: Refer to the following data and answer the questions that follow:

Amit was driving in New Town, where all roads either north-south or east-west forming a grid. Roads were at a distance of 1 km from each other in parallel.

9. Amit started at the intersection of streets no. 7 and 8. He drove 3 km north, 3 km west and 4 km south. Which further route could bring him back to his starting point?

- I. 3 km east, then 2 km south
II. 1 km north, then 3 km east
III. 1 km north, then 2 km west

- (a) I only (b) II only
(c) I and II only (d) II and III only

10. After driving as stated in question no. 9 above, Amit did not return to his starting point, but instead drove 4 km east and 1 km north. How far is he from his starting point?

- (a) 5 km (b) 4 km
(c) 1 km (d) 7 km

Directions for questions 11 to 15: Refer to the following data and answer the questions that follow:

A numerical machine accepts two values X and Y. Then it updates these values as $X = XY$ and $Y = Y + 1$ in every step. The machine stops at $X \geq N$.

11. For $X = 3$, $Y = 2$ and $N = 100$, how many steps are performed before the machine stops?

- (a) 2 (b) 3
(c) 4 (d) 5

12. In the above question (11), what is the final value of X?



- (a) 6 (b) 20
(c) 72 (d) 360

13. In the above question (11), what is the final value of Y?

- (a) 4 (b) 5
(c) 6 (d) 20

14. If the value of N is changed to 500, what would be the final value X?

- (a) 360 (b) 500
(c) 560 (d) 2160

15. If $X = 2$ and $Y = 3$, what should be the minimum value of N such that final value of Y is 7?

- (a) 300 (b) 360
(c) 720 (d) 860

Directions for questions 16 to 20: Refer to the following statements and answer the questions that follow:

Seven students Priya, Ankit, Raman, Sunil, Tony, Deepak and Vicky take a series of tests. No two students get similar marks. Vicky always scores more than Priya. Priya always scores more than Ankit. Each time either Raman scores the highest and Tony gets the least, or alternatively Sunil scores the highest and Deepak or Ankit scores the least.

16. If Sunil is ranked sixth and Ankit is ranked fifth, which of the following can be true?

- (a) Vicky is ranked first or fourth
(b) Raman is ranked second or third
(c) Tony is ranked fourth or fifth
(d) Deepak is ranked third or forth

17. If Raman gets the highest, Vicky should be ranked not lower than:

- (a) Second (b) Third
(c) Fourth (d) Fifth

18. If Raman is ranked second and Ankit is ranked first, which of the following must be true?

- (a) Sunil is ranked third



- (b) Tony is ranked third
(c) Priya is ranked sixth
(d) None of these
- 19.** If Sunil is ranked second, which of the following can be true?
(a) Deepak gets more than Vicky (b) Vicky gets more than Sunil
(c) Priya gets more than Raman (d) Priya gets more than Vicky
- 20.** If Vicky is ranked fifth, which of the following must be true?
(a) Sunil scores the highest (b) Raman is ranked second
(c) Tony is ranked third (d) Ankit is ranked second
- 21.** In 2002, according to a news poll, 36% of the voters had leaning towards party “Y”. In 2004, this figure rose to 46%. But in another survey the percentage was down to 40%. Therefore, the party “Z” is likely to win the next election. Which of the following, if true, would seriously weaken the above conclusion?
(a) People tend to switch their votes at the last minute
(b) It has been shown that 85% of the voters belonging to the party “Y” vote in an election as compared to 80% of the voters belonging to party “Z”
(c) 35% of people favour party “Z”
(d) No one can predict how people will vote
- 22.** Inflation rose by 5% over the second quarter, by 4% during the first quarter and higher than 3% recorded during the same time last year. However, the higher price index did not seem to alarm National stock index, as stock prices remained steady.
Which of the following, if true, could explain the reaction of National stock index?
(a) RBI announced that it will take necessary corrective measures
(b) Stock prices were steady because of a fear that inflation would continue
(c) Economist warned that inflation would continue
(d) Much of the quarterly increase in the price level was due to a summer drought effect on food price

Directions for question 23: Pick up the appropriate analogy.

- 23.** Birth : Dirge



- (a) sunset : sunrise
- (b) security check : arrival
- (c) marriage : alimony
- (d) welcome address : vote of thanks

Beautiful beaches attract people, no doubt about it. Just look at this city's beautiful beaches, which are among the most overcrowded beaches in the state.

24. Which of the following exhibits a pattern of reasoning most similar to the one exhibited in the argument above?
- (a) Moose and bear usually appear at the same drinking hole at the same time of day. Therefore, moose and bear must grow thirsty at about the same time.
 - (b) Children who are scolded severely tend to misbehave more often than other children. Hence if a child is not scolded severely that child is less likely to misbehave.
 - (c) This software program helps increase the work efficiency of its users. As a result these users have more free time for other activities.
 - (d) During warm weather my dog suffers from fleas more than during cooler weather. Therefore, fleas must thrive in a warm environment.

25. **No national productivity measures are available for underground industries that may exist but remain unreported. On the other hand, at least some industries that are run entirely by self-employed industrialists are included in national productivity measures.**

From the information given above, it can be validly concluded that

- (a) there are at least some industries run entirely by self-employed industrialists that are underground industries
- (b) no industries that are run entirely by self-employed industrialists operate underground
- (c) there are at least some industries other than those run entirely by self-employed industrialists that are underground industries
- (d) There are at least some industries run entirely by self-employed industrialists that are not underground industries

26. **Nilu has never received a violation from the Federal Aviation Administration during her 16-year flying career. Nilu must be a great pilot.**

Which of the following can be said about the reasoning above?

- (a) The definitions of the terms create ambiguity.



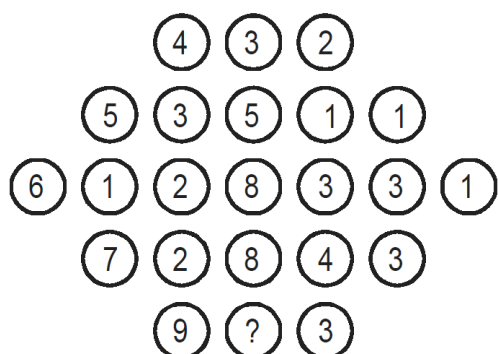
- (b) The argument uses circular reasoning.
- (c) The argument is built upon hidden assumptions.
- (d) The argument works by analogy.

27. Many people argue that the death penalty deters murder. However, the notorious killer Tom Hanks moved to a state that imposes the death penalty just before embarking on a series of ferocious murders. Thus, it seems clear that the existence of the death penalty does not serve as a deterrent to murder.

The argument above may best be characterized as:

- (a) an appeal to emotion.
- (b) a flawed analogy.
- (c) a general conclusion based on a specific example.
- (d) circular reasoning.

28. What number should replace the question mark?



- (a) 1
- (b) 4
- (c) 12
- (d) 6

29. The fewer restrictions there are on the advertising of legal services, the more lawyers there are who advertise their services, and the lawyers who advertise a specific service usually charge less for that service than lawyers who do not advertise. Therefore, if the state removes any of its current restrictions, such as the one against advertisements that do not specify fee arrangements, overall consumer legal costs will be lower than if the state retains its current restrictions.

If the statements above are true, which of the following must be true?

- (a) Some lawyers who now advertise will charge more for specific services if they do not have to specify fee arrangements in the advertisements.



- (b) More consumers will use legal services if there are fewer restrictions on the advertising of legal services.
- (c) If the restriction against advertisements that do not specify fee arrangements is removed, more lawyers will advertise their services.
- (d) If more lawyers advertise lower prices for specific services, some lawyers who do not advertise will also charge less than they currently charge for those services.

30. Which of the following, if true, would most seriously weaken the argument concerning overall consumer legal costs?

- (a) The state is unlikely to remove all of the restrictions that apply solely to the advertising of legal services.
- (b) Lawyers who do not advertise generally provide legal services of the same quality as those provided by lawyers who do advertise.
- (c) Most lawyers who now specify fee arrangements in their advertisements would continue to do so even if the specification were not required.
- (d) Most lawyers who advertise specific services do not lower their fees for those services when they begin to advertise.

SECTION II GENERAL KNOWLEDGE

For all questions in this section, correct answers carry 1 mark each.

- 31.** “Swayamsidha” is a scheme launched by the Government of India to help
- (a) School Children only
 - (b) Health workers only
 - (c) Senior citizen without any regular income
 - (d) Women only
- 32.** What is ‘Share swap’?
- A. A business takeover in which acquiring company uses its own stock to pay for the acquired company.
 - B. When a company uses its own shares to get some short term loan for working capital requirement.
 - C. When companies are required to float a new issue to earn capital for their expansion programmes, each shareholder gets some additional preferential shares. The process is known as Share Swap.



- (a) Only A (b) Only A & B
(c) Only C (d) None of the above

33. Regarding “carbon credits” which of the following statements is not correct?

- (a) The carbon credits system was ratified in conjunction with Kyoto Protocol
(b) Carbon credits are awarded to those countries or groups who have reduced the greenhouse gases below their emission quota
(c) The goal of carbon credit system is to reduce carbon dioxide emission.
(d) Carbon credits are traded at a price fixed from time to time by the United Environment Programme

34. Both Foreign Direct Investment (FDI) and Foreign Institutional Investor (FII) are related to investment in a country. Which one of the following statements best represents an important difference between the two?

- (a) FII helps bring better management skills and technology while FDI only brings capital
(b) FII helps in increasing capital availability in general, while FDI only targets specific sectors
(c) FDI flows only into secondary markets while FII targets primary market
(d) FII is considered to be more stable than FDI

35. In context of global oil prices, “Brent crude oil” is frequently referred to in the news. What does this term imply?

- (1) It is a major classification of crude oil
(2) It is sourced from North Sea
(3) It does not contain sulphur

Which of the statements given above is/are correct?

- (a) 2 only (b) 1 and 2 only
(c) 1 and 3 only (d) 1, 2 and 3

36. With reference to “Look East Policy” of India consider the following statements:

1. India wants to establish itself as an important regional player in the East Asian affairs



2. India wants to plug the vacuum created by the termination of Cold war.
3. India wants to restore the historical and cultural ties with its neighbors in Southeast and East Asia.

Which of the statements given above is/are correct?

- | | |
|------------|------------------|
| (a) 1 only | (b) 1 and 3 only |
| (c) 3 only | (d) 1, 2 & 3 |

37. Recently “oilzapper” was in news. What is it?

- (a) It is eco friendly technology for the remediation of oily sludge and oil spills
- (b) It is the latest technology developed under sea oil exploration
- (c) It is genetically engineered high biofuel – yielding maize variety
- (d) It is the latest technology to control accidentally caused flames from oil wells.

38. Why is the offering of “teaser loans’ by commercial banks a cause of economic concern?

1. The teaser loans are considered to be an aspect of sub– prime lending and banks may be exposed to the risk of defaulters in future.
2. The teaser loans are given to inexperienced entrepreneurs to set up manufacturing or export units.

Which of the statements given above is/are correct?

- | | |
|----------------|---------------------|
| (a) 1 only | (b) 2 only |
| (c) Both 1 & 2 | (d) Neither 1 nor 2 |

39. Why is the Government of India disinvesting its equity in the Central Public Sector Enterprises (CPSE)?

1. The Government intends to use the revenue earned from disinvestment mainly to pay the External debt.
2. The Government no longer intends to retain the management control of CPSEs

Which of the statements above is/are correct’?

- | | |
|----------------|-------------------|
| (a) 1 only | (b) 2 only |
| (c) Both 1 & 2 | (d) Neither 1 & 2 |

40. The book “Unto this Last’ which influenced Gandhiji, was authored by



- (a) Boris Yeltsin (b) Pushkin
(c) Ruskin Bond (d) John Ruskin
- 41.** Besides USA, India has signed, with which of the following countries the agreement being named as 'Cooperation Agreement on the development of Peaceful Uses of Nuclear Energy'?
- (a) Italy (b) Germany
(c) France (d) Australia
- 42.** Which of the following countries is a not member of the Nuclear Suppliers Group (NSG)?
- (a) Russia (b) USA
(c) Italy (d) Iran
- 43.** Many times we read in the newspaper that several companies are adopting the FCCBs route to raise capital. What is the full form of FCCB?
- (a) Foreign Currency Convertible Bonds
(b) Foreign Convertible Credit Bonds
(c) Financial Consortium & Credit Bureau
(d) None of these
- 44.** As per the reports published in various newspapers, RBI has asked banks to make plan to provide banking services in villages having population of 2000. This directive issued by the RBI will fall in which of the following categories?
- (a) Plan for financial inclusion
(b) Efforts to meet Priority sector lending
(c) Extension of Internet & Branchless banking
(d) None of these
- 45.** Which of the following is/are treated as artificial currency?
- (a) ADR (b) GDR
(c) Both ADR & GDR (d) SDR
- 46.** Which of the following terms indicates a mechanism used by commercial banks to provide credit to the Government?
- (a) Cash Credit Ratio (b) Debt Service Obligation
(c) Liquidity Adjustment Facility (d) Statutory Liquidity Ratio
- 47.** Who among the following was not part of the drafting committee of the Lokpal Bill?



- (a) Salman Khurshid (b) Anna Hazare
(c) Arvind Kejriwal (d) Kiran Bedi
- 48.** Criminal procedure is a subject of which of the following lists?
(a) State List (b) Concurrent List
(c) Union List (d) Both a and c
- 49.** One of the world's biggest Uranium resources was recently found in
(a) Andhra Pradesh (b) Maharashtra
(c) Jharkhand (d) Uttarakhand
- 50.** Which of the following was the first venture of Kishore Biyani
(a) Pantaloons (b) Big Bazar
(c) Central (d) Future capital Holdings
- 51.** Who among the following is often referred to as father of India's "Green Revolution"?
(a) Dr. Verghese Kurien (b) Dr. Amrita Patel
(c) MS. Swaminathan (d) Gurudev Khush
- 52.** Who among the following directed the movie Peepli Live?
(a) Ashutosh Gowariker (b) Kiran Rao
(c) Anusha Rizvi (d) Seema Chisti
- 53.** The point at which solid, liquid and gaseous forms of a substance co-exist is called
(a) sublimation point (b) distillation point
(c) triple point (d) melting point
- 54.** The limit beyond which the stars suffer internal collapse is called the
(a) Raman Effect (b) Chandrashekhar limit
(c) Aurora Borealis (d) Quasan Zone
- 55.** UNDP reports publishes every year the Human Development Index. Which of the following is not criteria used to measure the Human Development Index?
(a) Health (b) Education
(c) Living Standards (d) Human Rights



- 56.** The software company I-flex Solutions was originally a division of which famous financial services company?
- (a) Citicorp (b) ICICI
(c) HSBC (d) ABN Amro Bank
- 57.** Which of the following is not a member of SAARC?
- (a) Bhutan (b) Bangladesh
(c) Burma (d) Maldives
- 58.** Which article of the Indian Constitution recognizes Hindi in Devanagari Script as the official language of India?
- (a) Art 345 (b) Art 343
(c) Art 348 (d) Art 334
- 59.** India has finally woken up to the needs of the country's elderly. With the number of people in the 60-plus age group in India expected to increase to 100 million in 2013 and to 198 million in 2030, the health ministry is all set to roll out the
- (a) National Programme for Health care of the Elderly
(b) National Programme for Senior Citizens
(c) National Programme for Old Aged
(d) Rashtriya Vriddha Swasthya Yojana
- 60.** Which among the following statements is/are correct?
- (1) Non-resident Indians (NRIs) can now cast votes in their home constituencies in India.
(2) The NRI can cast his vote by postal balloting.
- (a) 1 only (b) 2 only
(c) Both 1 and 2 (d) Neither 1 nor 2
- 61.** In a landmark move, which of these State governments has set up a Savarna Aayog, a commission to identify the deprived and underprivileged families among upper castes?
- (a) Uttar Pradesh (b) Bihar
(c) Madhya Pradesh (d) Rajasthan
- 62.** Which of these countries has announced one billion US dollar aid for the reconstruction of Nalanda University?



- (a) Japan (b) Singapore
(c) Malaysia (d) China
- 63.** What is the name of the in-house magazine to be published by the Indian Railways, to be distributed to the passengers on high end trains?
(a) Rail Vishwa (b) Rail Bandhu
(c) Rail Mail (d) Rail Patra
- 64.** The government, in February 2011, setup a task force to create a way to provide direct subsidies to the ultimate beneficiaries on petroleum working gas and fertilizers. The task force will be headed by—
(a) Nandan Nilekani (b) Apoorva Sinha
(c) Sangam Chitra (d) All of these
- 65.** Which of these countries has been added in the 'BRIC (Brazil-Russia-India-China) grouping of emerging economies?
(a) South Korea (b) Venezuela
(c) South Africa (d) Malaysia
- 66.** Which of the following countries was the host of First Asian Yoga Championship held recently?
(a) Thailand (b) Cambodia
(c) Vietnam (d) Laos
- 67.** Who among the following has been defeated by Saina Nehwal, who has won the Swiss Open Grand Prix Gold title recently, becoming the First Indian to do so?
(a) Ji Hyun Sung (b) Wang Lin
(c) Kamilla Rytter Juhl (d) Shinta Mulia Sari
- 68.** On March 6, 2011, the Supreme Court held that _____ has ample powers to enact legislation with respect to extra-territorial aspects for the security of India?
(a) President (b) Prime Minister
(c) Supreme Court (d) Parliament
- 69.** Which country has appointed Brigadier General Ravinder Singh as its next Army chief, the first Sikh in nearly 30 years to be given the force's baton
(a) Thailand (b) Singapore



- (c) Malaysia (d) Indonesia

70. Annant Pai, better known as 'Uncle Pai', who recently died was the creator of which among the following comic series?

- (a) Chacha Chaudhary (b) Chandamama
(c) Indrajaaal (d) Amar Chitra Katha

SECTION III GENERAL ENGLISH

For all questions in this section, correct answers carry 1 mark each.

Direction for Q. 71 to 76: Read the following passage and answer the questions that follow.

D. H. Lawrence – 1885-1930: The Supreme Triumph

For man, the vast marvel is to be alive. For man, as for flower and beast and bird, the supreme triumph is to be most vividly, most perfectly alive. Whatever the unborn and the dead may know, they cannot know the beauty, the marvel of being alive in the flesh. The dead may look after the afterwards. But the magnificent here and now of life in the flesh is ours, and ours alone, and ours only for a time. We ought to dance with rapture, that we should be alive and in the flesh, and part of the living, incarnate cosmos. I am part of the sun as my eye is part of me.

That I am part of the earth my feet below know perfectly, and my blood is part of the sea. My soul knows that I am part of the human race. My soul is an organic part of the great human soul, as my spirit is part of my nation. In my own very self, I am part of my family. There is nothing of me that is alone and absolute except my mind, and we shall find that the mind has no existence by itself, it is only the glitter of the sun on the surface of the waters. — Apocalypse, 1931.

71. By triumph the author means-

- (a) sin (b) loss
(c) sorrow (d) victory

72. When the dead look after the afterwards the living should look at life

- (a) forever (b) for some months
(c) for only a short while (d) in the past

73. By rapture the author means an emotion involving great

- (a) trepidation (b) thrill



- (c) fear (d) joy

74. By the last line "It waters", the author means that the mind is only

- (a) a mirage (b) an illusion
(c) magic (d) a reflection

75. The tone of this passage is

- (a) social (b) moral
(c) reflective (d) philosophical

76. The most suitable title for this passage would be-

- (a) The Surface of the Waters (b) My Mind
(c) The Human Race (d) Alive and Kicking

Direction for Q. 77 to 79: Choose the correct option.

77. The repetition of messages or the use of superfluous expressions is called...

- (a) redundancy (b) hyperbole
(c) alliteration (d) allegory

78. ink: pen: paper

- (a) watch: dial: strap (b) book: paper: words
(c) farmer: plough: field (d) colour: brush: canvas

79. realia

- (a) theoretical constructs (b) fabricated examples
(c) objects from real life (d) based on reality

Direction for Q. 80 to 85: Choose the grammatically correct option from the following.

80. (a) 'Are these gloves belonging to you?' she asked.

(b) 'Does this gloves belong to you?' she asked.

(c) 'Do these gloves belongs to you?' she asked.

(d) 'Do these gloves belong to you?' she asked.

81. (a) I live in a house in a street in the countryside.



The street is called “Bear Street” and the house is old — more than 100 years old!

- (b) I live in the house in the street in the countryside.

The street is called “Bear Street” and the house is old — more than 100 years old!

- (c) I live in a house in the street in the countryside.

The street is called “Bear Street” and the house is old—more than 100 years old!

- (d) I live in a house in a street in the countryside.

The street is called “Bear Street” and a house is old — more than 100 years old!

- 82.** (a) The teachers will be able to visit our schools and compare our teaching methods to their own.
- (b) The teachers will be able to pay a visit to our schools and compare teaching methods for their own.
- (c) The teachers will be able to visit our schools and compare our teaching methods with their own.
- (d) The teachers will be able to visit our school and compare their teaching method with their own
- 83.** (a) Could you give me the amount that you filled out in the check which was sent?
- (b) Could you give me the amount what you filled out in the check you sent?
- (c) Could you give me the amount for which you filled out in the check you sent?
- (d) Could you give me the amount wherein you filled out in the check you sent?
- 84.** (a) I have completed the work yesterday.
- (b) I did completed the work yesterday.
- (c) I have had completed the work yesterday.
- (d) I completed the work yesterday.
- 85.** (a) The train couldn't stop in time and crashed with the truck.
- (b) The train couldn't stop in time and crashed into the truck.
- (c) The train couldn't stop in time and crashed against the truck.



- (d) The train couldn't stop in time and crashed before the truck.

Direction for Q. 86 to 90: Choose the correct synonymous word or description for each italicized word.

The Jan Lokpal Bill, also *referred* to (86) as the citizens' ombudsman bill, is a proposed *independent* (87) anti - corruption law in India. Anti-corruption social activists proposed it as a more effective improvement on the original Lokpal bill, which is currently being proposed by the Government of India. The Jan Lokpal Bill aims to effectively *deter* (88) corruption, redress *grievances* (89) of citizens, and protect whistle-blowers. If made into law, the bill would create an independent *ombudsman* (90) body called the Lokpal. It would be empowered to register and investigate complaints of corruption against politicians and bureaucrats without prior government approval. (Source: Wikipedia)

- 86.** (a) described as (b) included in
(c) supported for (d) reformed as
- 87.** (a) self-centered (b) impartial
(c) self-seeking (d) self-possessed
- 88.** (a) swell (b) prevent
(c) propel (d) lucubrate
- 89.** (a) complaints (b) dishonesty
(c) committees (d) opinions
- 90.** (a) a government appointee who investigates complaints by private persons against bureaucrats and / or politicians
(b) a government appointee who investigates complaints by government against common citizens.
(c) a government appointee who investigates complaints by citizens against citizens.
(d) a government appointee who investigates complaints by government against government officials.

Direction for Q. 91 to 94: In the following sentences, one word or a phrase is used wrongly. Choose the word that must be changed or modified or deleted to make the sentence correct. There are sentences without any errors too.

- 91.** The committee **came to** a decision **to discuss** in detail **about** assorted problems that people have been facing for **a long time**.



- (a) came to (b) to discuss
(c) about (d) a long time

92. I know you may not **see eye to eye** with the philosophy of Ramkrishna but you must admit that he **had had** tremendous **influence over** a great many followers.

- (a) see eye to eye (b) had had
(c) influence over (d) no error

93. The Principal **inquired with** the students if they would like their teacher **to repeat** the lesson **again**.

- (a) inquired with (b) to repeat
(c) again (d) no error

94. One of the **security guards** rushed **forward**; unlocked the gate and asked whether I had anything **objectionable**.

- (a) security guards (b) forward
(c) objectionable (d) no error

Direction for Q. 95 and 96: Rearrange the following sentence fragment (P, Q, R and S) to make meaningful sentences.

95. I always told them.... and consideration for me.

- P. how for me she
Q. always exuded warmth
R. was like a family's
S. elder and how she has

- (a) PRSQ (b) PQSR
(c) PRQS (d) SQPR

96. A year or foreign languages

- P. I picked up a liking for learning
Q. the largest urban area and primary
R. so after leaving Bangkok
S. city of Thailand and a place of unique beauty

- (a) RPQS (b) RQSP
(c) RSPQ (d) SPQR



Direction for Q. 97 to 99: Choose the correct option.

- 97.** The book five sections.
- (a) comprises of (b) comprises
(c) consists (d) comprises to
- 98.** MY grandfather left most of his money to an NGO; the rest went directly to my daughter and.....
- (a) I (b) me
(c) myself (d) myself too
- 99.** Parts of a country behind the coast or a river's banks
- (a) Isthmus (b) Archipelago
(c) Hinterland (d) Swamps

Direction for Q. 100 and 101: In the questions below the sentences have been given in Active/Passive voice. From the given alternatives, choose the one which best expresses the given sentence in Passive/ Active voice.

- 100.** Who is creating this mess?
- (a) Who has been created this mess?
(b) By whom has this mess been created?
(c) By whom this mess is being created?
(d) By whom is this mess being created?
- 101.** You should open the wine about three hours before you use it.
- (a) Wine should be opened about three hours before use.
(b) Wine should be opened by you three hours before use.
(c) Wine should be opened about three hours before you use it.
(d) Wine should be opened about three hours before it is used.

Direction for Q. 102: In question below, the passage consists of six sentences. The first and sixth sentences are given. (S1, S6) The middle four sentences in each have been removed and jumbled up. These are labeled as P, Q, R and S. Find out the proper order for the four sentences.

- S1:** Metals are today being replaced by polymers in many applications.
- P:** Above all, they are cheaper and easier to process making them a viable alternative to metals.
- Q:** Polymers are essentially a long chains of hydrocarbon molecules.



R: Today polymers as strong as metals have been developed.

S: These have replaced the traditional chromium-plated metallic bumpers in cars.

S6: Many Indian Institutes of Science and Technology run special programmes on polymer science. The Proper sequence should be:

- 102.** (a) QRSP (b) RSQP
(c) RQSP (d) QRPS

Direction for Q. 103 and 104: Choose the word which best expresses the meaning of the given word.

103. FRUGALITY

- (a) Foolishness (b) Extremity
(c) Enthusiasm (d) Economy

104. HARBINGER

- (a) Messenger (b) Steward
(c) Forerunner (d) Pilot

Direction for Q. 105 and 106: Choose the word which is the exact OPPOSITE of the given words.

105. EXODUS

- (a) Influx (b) Home-coming
(c) Return (d) Restoration

106. EQUANIMITY

- (a) Resentment (b) Dubiousness
(c) Duplicity (d) Excitement

Direction for Q. 107: Find the Odd one out from the group of words.

- 107.** (a) Bludgeon (b) Dragon
(c) Blackjack (d) Order

Direction for Q. 108: Each pair of capitalized words given is followed by four pair of words. Select the pair that DOES NOT express a relationship similar to that expressed by the capitalized pair.

108. KERNEL : SHELL



- (a) Caterpillar : Pupa (b) Larva : Cocoon
(c) Lassitude : Syncope (d) Passenger : Car

109. Both of them.... since their childhood.

- (a) are working here (b) work here
(c) have been working (d) are liking to work

110. Although initial investigations pointed towards him

- (a) the preceding events corroborated his involvement in the crime
(b) the additional information confirmed his guilt
(c) the subsequent events established that he was guilty
(d) the subsequent events proved that he was innocent

SECTION IV QUANTITATIVE & DATA INTERPRETATION & DATA SUFFICIENCY

For all questions in this section, correct answers carry 1 mark each.

111. A train traveling at 36 kmph crosses a platform in 20 seconds and a man standing on the platform in 10 seconds. What is the length of the platform in meters?

- (a) 240 meters (b) 100 meters
(c) 200 meters (d) 300 meters

112. By walking at $\frac{4}{5}$ th of his usual speed, a man reaches office 10 minutes later than usual. What is his usual time? (Note: Option (a) and (c) were same in the original paper.)

- (a) 30 min (b) 40 min
(c) 30 min (d) 50 min

113. A man and a woman 81 miles apart from each other, start travelling towards each other at the same time. If the man covers 5 miles per hour to the woman's 4 miles per hour, how far will the woman have travelled when they meet?

- (a) 27 (b) 36
(c) 45 (d) None of these



- 114.** Two people were walking in opposite directions. Both of them walked 6 miles forward then took right and walked 8 miles. How far is each from starting positions?
- (a) 14 miles and 14 miles (b) 10 miles and 10 miles
(c) 6 miles and 6 miles (d) 12 miles and 12 miles
- 115.** Four men and three women can do a job in 6 days. When five men and six women work on the same job, the work gets completed in 4 days. How long will 2 women and 3 men take to do the job?
- (Note:** Correct answer was not given in the option.)
- (a) 18 (b) 10
(c) 9 (d) 12
- 116.** Ram completes 60% of a task in 15 days and then takes the help of Rahim and Rachel. Rahim is 50% as efficient as Ram is and Rachel is 50% as efficient as Rahim is. In how many more days will they complete the work?
- (a) $\frac{121}{3}$ (b) $\frac{51}{7}$
(c) $\frac{55}{7}$ (d) $\frac{65}{7}$
- 117.** A and B can do a piece of work in 21 and 24 days respectively. They start work together and after some days A leaves the work and B completes the remaining work in 9 days. After how many days did A leave?
- (a) 5 (b) 7
(c) 8 (d) 6
- 118.** A trader makes a profit equal to the selling price of 75 articles when he sold 100 of the articles. What % profit did he make in the transaction?
- (a) 33.33% (b) 75%
(c) 300% (d) 150%
- 119.** In a 100 M race, if A gives B a start of 20 meters, then A wins the race by 5 seconds. Alternatively, if A gives B a start of 40 meters the race ends in a dead heat. How long does A take to run 200 M?
- (a) 10 seconds (b) 20 seconds
(c) 30 seconds (d) 40 seconds

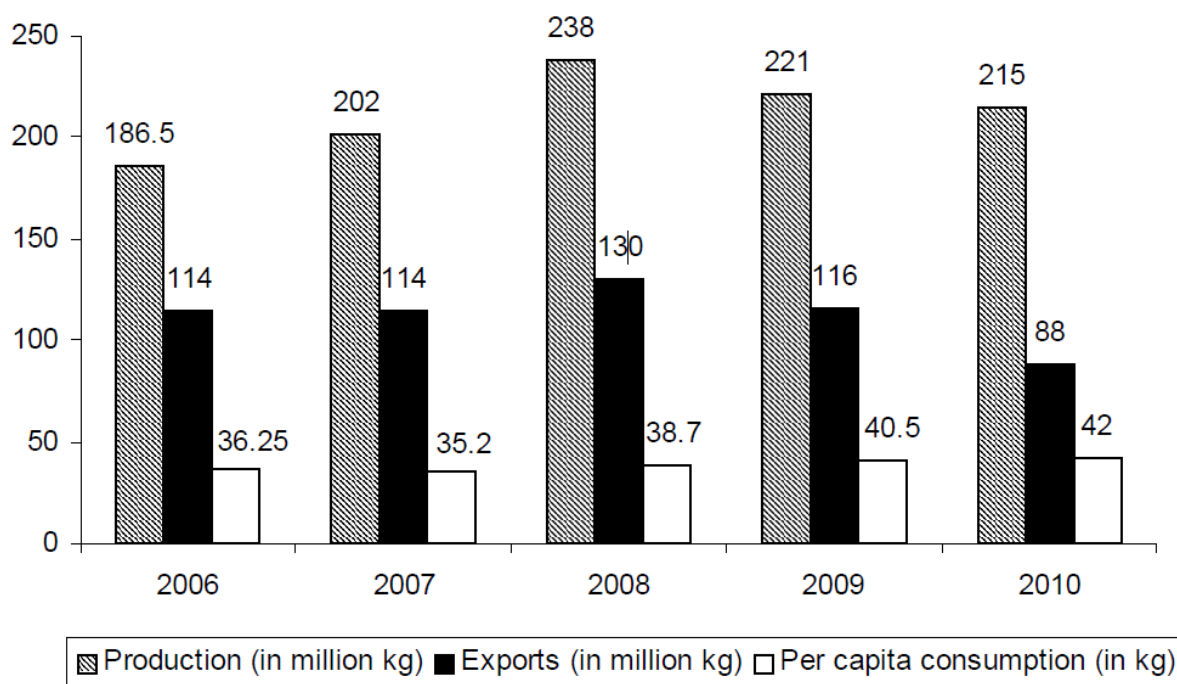


- 120.** A 4 cm cube is cut into 1 cm cubes. What is the percentage increase in the surface area after each cutting?
- (a) 4% (b) 300%
(c) 75% (d) 400%
- 121.** A number G236G0 can be divided by 36 if G is:
- (a) 8
(b) 6
(c) 1
(d) More than one values are possible.
- 122.** Amit can do a work in 12 days and Sagar in 15 days. If they work on it together for 4, then the fraction of the work that is left is:
- (a) $\frac{3}{20}$ (b) $\frac{3}{5}$
(c) $\frac{2}{5}$ (d) $\frac{2}{20}$
- 123.** A rectangular park 60 m long and 40 m wide has two concrete crossroads running in the middle of the park and the rest of the park has been used as a lawn. If the area of the lawn is 2109 sq. m, then what is the width of the road?
- (a) 2.91 m (b) 3 m
(c) 5.82 m (d) None of these
- 124.** A bag contains 5 white and 3 black balls; another bag contains 4 white and 5 black balls. From any one of these bags a single draw of two balls is made. Find the probability that one of them would be white and the other black ball.
- (a) $\frac{275}{504}$ (b) $\frac{5}{18}$
(c) $\frac{5}{9}$ (d) None of these

Directions for Q. No. 125 to 128: Answer the questions on the basis of the information given below:



The following bar graph gives the production, exports and per capita consumption of rice in country A, for the five years from 2006 to 2010.



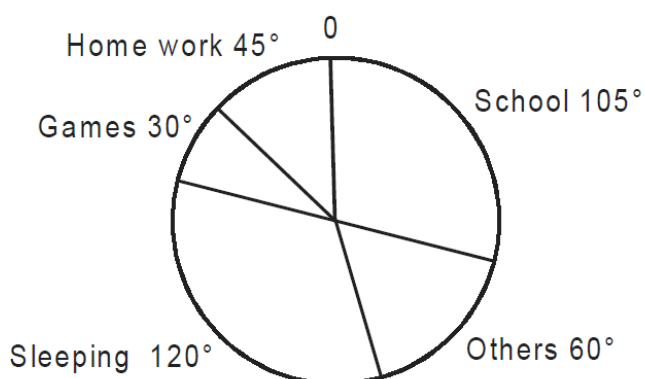
Consumption = Production – Exports

Per Capita Consumption = (Consumption) ÷ (Population)

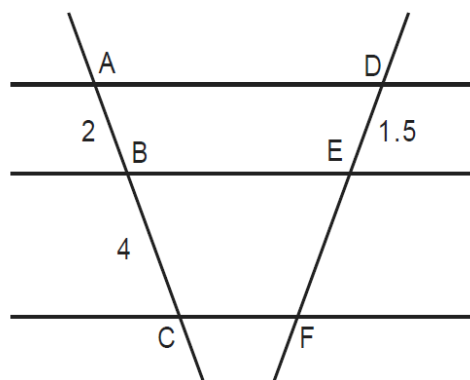
- 125.** In which year was the percentage increase in the consumption of rice over the previous year, the highest?
- (a) 2007 (b) 2008
(c) 2009 (d) 2010
- 126.** What was the population of country A in the year 2008 (in million)?
- (a) 2.64 million (b) 2.72 million
(c) 2.79 million (d) 2.85 million
- 127.** The ratio of exports to the consumption in the given period was the highest in the year
- (a) 2006 (b) 2007
(c) 2008 (d) 2009
- 128.** In which of the given years was the population of country A, the highest?
- (a) 2007 (b) 2008
(c) 2009 (d) 2010



Directions for Q.129 to Q.133: The following pie chart shows the hourly distribution (in degrees) of all the major activities of a student.



- 129.** The percentage of time which he spends in school is:
- (a) 38% (b) 30%
(c) 40% (d) 25%
- 130.** How much time (in per cent) does he spend in games in comparison to sleeping?
- (a) 30% (b) 40%
(c) 25% (d) None of these
- 131.** If he spends the time in games equal to the home work and remains constant in other activities, then the percentage decrease in time of sleeping?
- (a) 15% (b) 125.5%
(c) 20% (d) None of these
- 132.** What is the difference in time (in hours) spent in school and in home work?
- (a) 2 (b) 3
(c) 5 (d) 8
- 133.** If he spends $\frac{1}{3}$ rd time of home work in Mathematics then the number of hours he spends in rest of the subject in homework?
- (a) 1 (b) 2
(c) 3 (d) 4
- 134.** Three parallel lines are cut by two transversals as shown in the given figure. If $AB = 2$ cm, $BC = 4$ cm and $DE = 1.5$ cm then the length of EF is:



- (a) 2 cm (b) 3 cm
(c) 3.5 cm (d) 4 cm
- 135.** $\log_{10} 10 + \log_{10} 10^2 + \dots + \log_{10} 10^n$
(a) $n^2 + 1$ (b) $n^2 - 1$
(c) $\frac{(n^2 + n)}{2} \cdot \frac{n(n+1)}{3}$ (d) $n^2 + n$
- 136.** The sum of a number and its reciprocal is thrice the difference of the number and its reciprocal. The number is:
(a) $\pm\sqrt{2}$ (b) $\pm\frac{1}{\sqrt{2}}$
(c) $\pm\frac{1}{\sqrt{3}}$ (d) $\pm\sqrt{3}$
- 137.** The total number of natural numbers that lie between 10 & 300 & are divisible by 9 is
(a) 32 (b) 30
(c) 33 (d) 34
- 138.** If ${}^nC_x = 56$ and ${}^nP_x = 336$, find n and x .
(a) 7, 3 (b) 8, 4
(c) 8, 3 (d) 9, 6
- 139.** One side of an equilateral triangle is 24 cm. the midpoints of its sides are joined to form another triangle whose midpoints are in turn joined to form still another triangle. This process continues indefinitely. Find the sum of the perimeters of all the triangles.
(a) 144 cm (b) 72 cm



- (c) 536 cm (d) 676 cm
- 140.** The probability that a leap year selected at random contains either 53 Sundays or 53 Mondays is:
- (a) $\frac{17}{53}$ (b) $\frac{1}{53}$
(c) $\frac{3}{7}$ (d) None of these
- 141.** Find the intercepts made by the line $3x + 4y - 12 = 0$ on the axes:
- (a) 2 and 3 (b) 4 and 3
(c) 3 and 5 (d) None of these
- 142.** The average of 4 distinct prime numbers a, b, c, d is 35 where $a < b < c < d$. a and d are equidistant from 36 and b and c are equidistant from 34 and a, b are equidistant from 30 and c and d are equidistant from 40. The difference between a and d is:
- (a) 30 (b) 14
(c) 21 (d) Cannot be determined.
- 143.** Ramsukh bhai sells rasgulla (a favorite Indian sweets) at Rs. 15 per kg. A rasgulla is made up of flour and sugar in the ratio 5 : 3. The ratio of price of sugar and flour is 7:3 (per kg). Thus, he earns $66\frac{2}{3}$ profit. What is the cost price of sugar?
- (a) Rs. 10/kg (b) Rs. 9/kg
(c) Rs. 18/kg (d) Rs. 14/kg
- 144.** A reduction of 20% in price of sugar enables a person to purchase 6 kg more for Rs. 240. What is the original price per kg of sugar?
- (a) Rs.10/kg (b) Rs. 8/kg
(c) Rs. 6/kg (d) Rs. 5/kg
- 145.** A solid sphere is melted and recast into a right circular cone with a base radius equal to the radius of the sphere. What is the ratio of the height and radius of the cone so formed?
- (a) 4 : 3 (b) 2 : 3
(c) 3 : 4 (d) None of these
- 146.** The speeds of the scooter, car and train are in the ratio of 1 : 4 : 16. If all of them cover equal distance the ratio of time taken/velocity for each of the vehicle is:



- | | |
|------------------|----------------|
| (a) 256 : 16 : 1 | (b) 1 : 4 : 16 |
| (c) 16 : 4 : 1 | (d) 16 : 1 : 4 |
- 147.** B is twice efficient as A and A can do a piece of work in 15 days. A started the work and after a few days B joined him. They completed the work in 11 days, from the starting. For how many days did they work together?
- | | |
|------------|------------|
| (a) 1 day | (b) 2 days |
| (c) 6 days | (d) 5 days |
- 148.** A, B, C and D purchased a restaurant for Rs. 56 lakhs. The contribution of B, C and D together is 460% that of A alone. The contribution of A, C and D together is 366.66 % that of B's contribution and the contribution of C is 40% that of A, B and D together. The amount contributed by D is:
- | | |
|--------------|--------------|
| (a) 10 lakhs | (b) 12 lakhs |
| (c) 16 lakhs | (d) 18 lakhs |
- 149.** The salary of Raju and Ram is 20% and 30% less than the salary of Saroj respectively. By what percent is the salary of Raju more than the salary of Ram?
- | | |
|------------|------------|
| (a) 33.33% | (b) 50% |
| (c) 15.18% | (d) 14.28% |
- 150.** The radius of a wire is decreased to one third and its volume remains the same. The new length is how many times the original length?
- | | |
|-------------|-------------|
| (a) 2 times | (b) 4 times |
| (c) 5 times | (d) 9 times |



ANSWER KEY - SNAP 2011

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



SOLUTIONS - SNAP 2011

1. b The starting statement is G, the conclusion statement is H.
G - People are rewarded
B - People are rewarded > they may change their lifestyle >
F - They may change their lifestyle > temperature will not rise
D - Temperature will not rise > water level may not rise
H - Water level does not rise
2. a The starting statement is G, the conclusion statement is H.
G - Vina dances
F - Vina dances > Kumar Sings
B - Kumar Sings > Audiences Dances
C - Audiences Dances > Concert is successful
H - Concert is successful

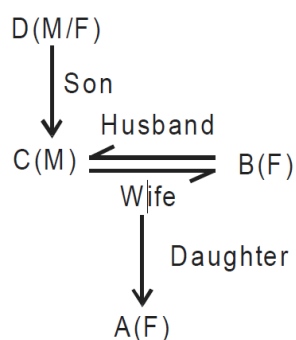
For questions 3 to 5:

The data given in the question set is incomplete.

As there is no 'None of these' or 'Cannot be determined' options, in order to answer these questions one of the members must always speak the truth.

Only from D's statement, all the relationship can be determined. Therefore, D must be the one who always speak the truth.

The family chart can be shown as below.



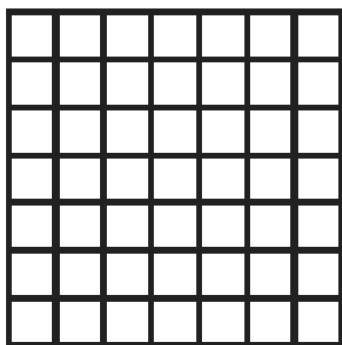
Note: 'M' represents male and 'F' represents female.



3. d D always speaks the truth.
4. c B is C's wife.
5. d B's daughter always tells lies. The answer cannot be option (c) as we don't know the gender of D.

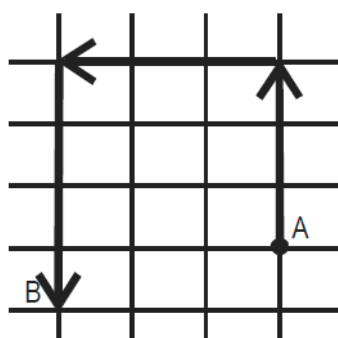
For questions 6 to 8:

A cube kept in a corner of a room will have only three its faces visible. Each face of the larger cube will look like as:



6. d Number of cubes with none of the face painted
 $= 343 - (49 \times 3 - 7 \times 3 + 1) = 216$.
7. a Number of cubes with exactly one face painted
 $= 36 \times 3 = 108$
(Since, edges sharing boundary with wall will have only one face painted.)
8. b As there is only one cube with three faces painted, number of cubes with at most two faces painted is equal to $343 - 1 = 342$.

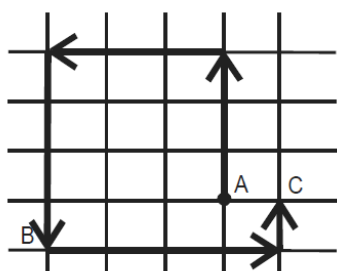
For questions 9 and 10:





The lines above represent roads at a distance of 1 km from each other.

9. b Let 'A' be the intersection of street number 7 and 8. After traveling 3 km North, 3 km West and 4 km South, Amit will be at point B.
Clearly, 1 km North and then 2 km south from point B will lead him back to point A.
10. c After traveling 4 km east and then 1 km North, he will finally be at point C as shown below.



Distance between points A and C = 1 km.

For questions 11 to 15:

Step 1: $X = 2 \times 3 = 6,$ $Y = 2 + 1 = 3$

Step 2: $X = 6 \times 3 = 18,$ $Y = 3 + 1 = 4$

Step 3: $X = 18 \times 4 = 72,$ $Y = 4 + 1 = 5$

Step 4: $X = 72 \times 5 = 360,$ $Y = 5 + 1 = 6$

11. c 12. d 13. c

14. d If $N = 500$ then it will stop after fifth step.

$\therefore x = 360 \times 6 = 2160$

15. a After 3 steps:

Steps	x	y
1	6	4
2	24	5
3	120	6

Therefore, at $N = 120$, value of y will be 6.

For $N = 121$, value of y will be 7.

\therefore Minimum value of $N = 121$



(Among the given options best possible value is 300. Therefore, option A is correct)

For questions 16 to 20:

Rank	1	2	3	4	5	6	7
Case I	Raman						Tony
Case II	Sunil						Deepak/ Ankit

Also, Vicky gets a higher rank than Priya who in turn got a higher rank than Ankit.

16. d As Sunil gets 5th rank, **Case I** is applicable.

Rank	1	2	3	4	5	6	7
Case I	Raman				Ankit	Sunil	Tony

Options (a), (b) and (c) cannot be true as per the given conditions.

17. c As Raman gets the highest marks, **Case I** is applicable.

Rank	1	2	3	4	5	6	7
Case I	Raman						Tony

As Vicky's rank is higher than that of Priya and Ankit, the lowest rank he could have got is 4th.

18. d The given condition in this question contradicts the mother data. Hence, none of the options is true.

19. a As Sunil is ranked 2nd, Case I is applicable.

Rank	1	2	3	4	5	6	7
Case I	Raman	Sunil					Tony

Therefore, Vicky must have got either 3rd or 4th rank. Options (b), (c) and (d) cannot be true as per the given conditions.

20. a As Vicky is ranked 5th, Priya and Ankit must have ranked below Vicky, thus Ankit must have got 7th rank and hence Case II is applicable.

Rank	1	2	3	4	5	6	7
Case II	Sunil				Vicky	Priya	Ankit

Therefore, Sunil scores the highest.



- 21.** c If only 35% people support party Z, this means that 65% people do not support it. In all the surveys the supporters of Party Y are more than 35%. Hence despite fluctuations, the number of supporters for Y is more than party Z.
- 22.** a The nation stock exchange's reaction can be explained only if the effect of rising inflation is curbed/reversed. This can be done by taking corrective measures. Hence option (a) is correct. If inflation would continue, then the stock prices cannot remain steady. hence options (b) and (c) are ruled out. Option (d) states a likely reason for inflation, but no indication is given as to if the drought will continue or not. In this case of uncertainty, stock prices can get affected.
- 23.** c Birth and Dirge signify beginning and end. Marriage signifies the beginning of a relation. Alimony is given in the event of a divorce which signifies the end of a relationship.
- 24.** c The method of reasoning used in the argument is arriving at a general conclusion from specific data. The author uses 'large number of visitors to the city's beaches to conclude that Nature lovers like to visit beautiful beaches. Option (c) follows the same method of reasoning as it draws a general conclusion from a specific example.
- 25.** d Refer to the line " at least some industry". This means that there are at least some industries run entirely by self- employed industrialists that are not underground industries.
- 26.** c The given argument assumes that not receiving a violation is a sufficient condition for being deemed a great pilot. Hence option (c) is correct.
- 27.** c The argument generalizes about the deterrent effect of capital punishment from one specific example of Tom Hanks. Hence option (c) is correct.
- 28.** d The number in the middle circle in each row is half of the sum of all the numbers in remaining circles of the row. Therefore, required number is 6.
- 29.** c The argument has the following line of reasoning -
Less restrictions > More lawyers will advertise services > Lawyers advertise services > charge less for that service > lower overall legal cost

Hence we can infer that if restrictions are removed, then more lawyers will advertise their services.



30. d The line of reasoning given in Q.29 will get weakened if the lawyers who are not advertising right now, begin advertising but do not lower the cost of service, this will weaken the argument because the overall legal cost will not go down.

31. d **32.** a **33.** d **34.** b **35.** b

36. b **37.** a **38.** a **39.** a **40.** d

41. c **42.** d **43.** a **44.** a **45.** d

46. d **47.** d **48.** b **49.** a **50.** a

51. c **52.** c **53.** c **54.** b **55.** d

56. a **57.** c **58.** b **59.** a **60.** a

61. b

62. **The exam conducting body has pronounced this question incorrect. Students shall not be marked on this question.**

63. b **64.** a **65.** c **66.** a **67.** a

68. d **69.** b **70.** d

71. d ‘Triumph’ means ‘victory’.

72. c The answer is clearly stated in the passage where the author states “and ours only for a time”, which is clearly depicted in option (c).

73. d ‘Rapture’ means ‘joy’.

74. d The last line of the para states, “the mind has no existence by itself, it is only the glitter of the sun on the surface of the waters”, which clearly shows that mind is a reflection.

75. d The author is philosophising about the purpose of being alive, about the origin/role and purpose of everything a common man is endowed with, including his mind. He isn’t ‘reflecting’ or analysing any event/experience of his or anyone else’s past.

76. d The passage talks about what the author feels about being alive and how one should live it. He is in a celebratory mood - celebrating the fact that he is alive! So, (d).

77. a Superfluous repetition or overlapping of words is ‘Redundancy’.



78. d Like ink is used in a pen to further use it on a paper, similarly, colour is used on a brush to further use it on a canvas.
79. c 'Realia' means 'things that are real'.
80. d Since the verb outside the inverted commas is in the past tense, it acts as the qualifying verb for all that comes within the inverted commas. So, the question inside the inverted commas should be in the present tense, to avoid redundancy.
- It is in the Simple Present and not in the continuous form because no action is taking place.
81. a This is a question that is testing the correctness of the usage of the 'articles'. In the sentences given, when I am introducing my house, it is just one out of many houses. So, it should be '...a house'. The same reason justifies the choice of "...a street..." ahead in the sentence. In the next sentence, Now that I am adding more information about the house that I have already introduced, I should use '...the house...'. Hence, the correct choice is (a).
82. c Options (b) and (d) are logically wrong. Between (a) and (c), we boil down to (c) because we compare "to a person" and "with a thing". Here, the teachers are comparing their methods **with** ours. So, (c).
83. a This is a request in the question form. Once the main request is made, the details of the query/request have to be added using clauses that should be added to the main statement using the correspondingly adequate relative pronouns. For speaking more on the amount - a specific one - the relative pronoun **that** should be used. '...was sent' at the fag end of the sentence is in passive voice while the previous part is in active voice. This shows that this is another sentence of the kind - The cheque was sent by someone. To attach this to the main sentence, we need to convert it to a clause and use another relative pronoun with it, but this time, the sender of the cheque is not a specific person. So we use a generic relative pronoun 'which'.
84. d "Yesterday" signifies that the sentence refers to an event that simply took place in the past, without any other condition stated or implied. So, (d) is the right choice.
85. b In English, when you dash against something which in turn, stops your movement and injures you or damages your vehicle, the idiom used is 'crash **into**'.



86. a 'Referred' means 'regarded as' or 'described as' hence option (a) is the most suitable answer.
87. b Although all four options seem to be quite close option (b) is right answer according to the context of the passage. Independent here means without any ties or inclination.
88. b 'Deter' is 'to discourage' or 'to prevent'. Thus option (b).
89. a 'Grievances' means 'complaints'.
90. a 'Ombudsman' is a government appointee who investigates complaints by private citizens against other officials or government agencies.
91. c When you discuss things, you discuss them and not **about** them. So, **about** should be deleted from there.
92. d No error.
93. c 'again' is redundant with 'repeat'.
94. d No error.
95. a PR is a mandatory pair and Q complements the end of the sentence.
96. b RQS forms a mandatory sequence.
97. b Comprise means 'consists of' so we do not use comprises of hence option (a) can be ruled out. Option (c) can be ruled out as consists means 'to be made up' so cannot be used without 'of'. Option (d) comprises to' is an incorrect usage.
98. b Objective pronoun 'me' would be used here as the action is being reflected on "my daughter and me".
99. c 'Hinterland' is "a land lying behind a coastal region."
100. d The given sentence in Active Voice and in Simple Present Tense. So, its Passive Voice is (d).
101. d The use of 'you' is implied in the passive voice.
102. a S1 introduces polymers Q continues with describing it. RS is a mandatory pair as R talks about those polymers as strong as metal and S talks about those particular polymers which are as strong as metals replacing the traditional chromium plated bumpers.
103. d 'Frugality' means 'the quality of being economical'.



104. The exam conducting body has pronounced this question incorrect. Students shall not be marked on this question.

'Harbinger' means 'anything that foreshadows a future event or an omen'.

105. a 'Exodus' means 'departure or immigration of usually a large number of people', 'influx' means 'act of flowing in', thus, option (a) is the right answer.

106. d 'Equanimity' means 'mental or emotional stability' hence, option (d) 'excitement' would be the right answer.

107. d The common element implied in a, b and c is the use of violence to get your job done. Order is the only odd one out.

108. The exam conducting body has pronounced this question incorrect. Students shall not be marked on this question.

'Kernel' is the softer, usually edible part contained in the shell of a nut or the stone of a fruit. 'Lassitude' which means weariness of body or mind from strain is not related to 'syncope' which means the contraction of a word by omitting one or more sounds from the middle.

109. c The usage of the word 'since' in the sentence given, signifies that it is in the Present Perfect Continuous Tense. So, (c).

110. d The usage of 'Although' at the beginning of the sentence necessitates the usage of two contradictory information. Since, along with 'although', the given information is in the affirmative mood, the next sentence should negate the charge. Hence (d).

111. b Speed of train = $36 \times \frac{5}{18} = 10 \text{ m/sec}$

Time taken by train to cross the man

$$= \frac{\text{Length of train } (L_1)}{\text{Speed of train}} = \frac{L_1}{10} = 10$$

$$\Rightarrow L_1 = 100 \text{ m}$$

Time taken by train to cross the platform

$$= \frac{100 + \text{Length of platform } (L_2)}{\text{Speed of train}} = \frac{100 + L_2}{10} = 20$$



$$\Rightarrow L_2 = 200 - 100 = 100 \text{ m}$$

- 112.** b Let the original speed be 's' m/min and usual time be 't' minutes.

When speed decreases to $\frac{4}{5}$ s, time taken will be $\frac{5}{4}$ t.

(Since speed is inversely proportional to time taken.)

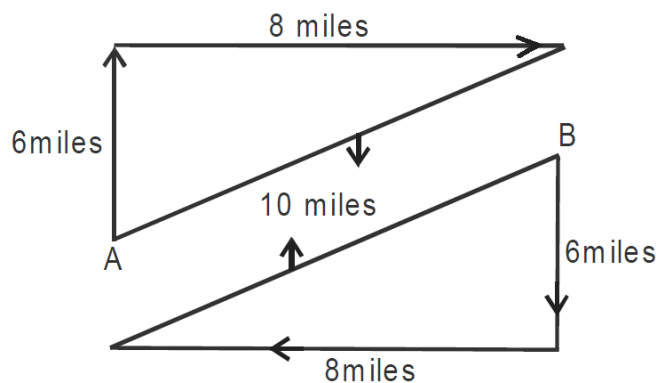
$$\frac{5}{4} t - t = 10 \Rightarrow t = 40$$

Usual time taken = 40 minutes.

- 113.** b
- Woman 81 miles Man
 (4 miles/hr) (5 miles/hr)

$$\text{Time taken to meet} = \frac{81}{4 + 5} = 9 \text{ hrs}$$

Distance travelled by woman = $9 \times 4 = 36$ miles.



- 114.** b
- Required distance = 10 miles.

- 115.** c Let a man completes the job in 'm' days and a woman completes the job in 'w' days.

$$\frac{4}{m} + \frac{3}{w} = \frac{1}{6} \quad \dots(i)$$

$$\frac{5}{m} + \frac{6}{w} = \frac{1}{4} \quad \dots(ii)$$

On solving (i) and (ii), 'm' = 36 days and 'w' = 54 days.



$$\text{Required time} = \frac{2}{36} + \frac{2}{54} = \frac{108}{13} \text{ days}$$

(Best possible option is (c)).

- 116. The exam conducting body has pronounced this question incorrect. Students shall not be marked on this question.**

Ram can complete $\frac{3}{5}$ th of the work in 15 days and hence can complete the whole work in 25 days.

Rahim can complete the same work in 50 days.

Rachel can complete the same work in 100 days.

The three together can complete $\frac{1}{25} + \frac{1}{50} + \frac{1}{100} = \frac{7}{100}$ th work in one day.

$$\begin{aligned} \text{Time required to complete 40\% of the work} &= \frac{\frac{2}{5}}{\frac{7}{100}} = \frac{40}{7} \text{ days.} \end{aligned}$$

(None of the options is correct.)

- 117. b** Let after 'n' days, 'A' leaves the work.

$$n\left(\frac{1}{21} + \frac{1}{24}\right) + \frac{9}{24} = 1$$

Therefore, $n = 7$ days.

- 118. c** Let the cost price of each article be Re.1 and selling price of each article be Rs. x.

S.P. of 100 articles = C.P of 100 articles + Profit

$$\Rightarrow 100x = 100 + 75x$$

$$\Rightarrow 25x = 100 \text{ or } x = 4$$

$$\Rightarrow \text{Profit} = \frac{\text{S.P.} - \text{C.P.}}{\text{C.P.}} \times 100 = \frac{4 - 1}{1} \times 100 = 300\%$$

- 119. c** Let speed of A be 'x' m/s and that of B be 'y' m/s.

When A gives B a start of 20m,



$$5 + \frac{100}{x} = \frac{80}{y} \quad \dots(i)$$

When A gives B a start of 40m,

$$\frac{100}{x} = \frac{60}{y} \quad \dots(ii)$$

$$y = \frac{3}{5}x$$

Replacing value of 'y' in equation (i), we get

$$5 + \frac{100}{x} = \frac{400}{3x} \Rightarrow \frac{400 - 300}{3x} = 5 \Rightarrow x = \frac{20}{3}$$

Therefore, time taken by A to cover 200 m = $\frac{200}{\frac{20}{3}} = 30$ seconds

- 120. b** Total surface area of the 4cm cube = $6a^2 = 6 \times 4 \times 4 \text{ cm}^2$ When 4 cm cube is cut into 1 cm cubes, we get 64 smaller cubes.

Total surface area of newly formed cubes = $64 \times 6a^2 = 64 \times 6 \times 1 \text{ cm}^2$

$$\text{Required percentage increase} = \frac{64 \times 6 \times 1 - 6 \times 4 \times 4}{6 \times 4 \times 4} \times 100$$

$$= \frac{4 - 1}{1} \times 100 = 300\%$$

- 121. a** G 2 3 6 G 0

G could be 0, 2, 4, 6 or 8 for the number to be divisible by 4. For the number to be divisible by 9, $11 + 2G$ must be divisible by 9.

$$\frac{11 + 2G}{9} = 1 + \frac{2 + 2G}{9} = 1 + 2 \left(\frac{1 + G}{9} \right)$$

$$\Rightarrow G = 8.$$

- 122. c** Let total work be LCM (12, 15) = 60 units.

$$\text{Work done by Amit in one day} = \frac{60}{12} = 5 \text{ units}$$



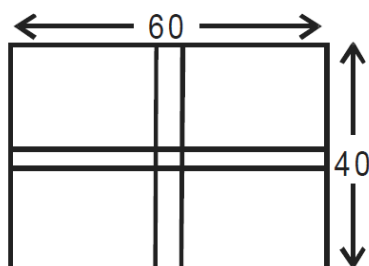
Work done by Sagar in one day = $\frac{60}{15} = 4$ units

Work done by Amit and Sagar together in one day = $5 + 4 = 9$ units

Work finished in 4 days = $9 \times 4 = 36$ units

Remaining work = $60 - 36 = 24$ units

Fraction of work left = $\frac{24}{60} = \frac{2}{5}$



123. b

Let the width of the crossroads be x meters.

Area of crossroads

$$= 60x + (40 - x) \times x$$

$$= 2400 - 2109 = 291$$

$$\Rightarrow x^2 - 100x + 291 = 0$$

$$\Rightarrow x = 3 \text{ or } 97$$

Width of crossroads = 3 m. (Since, x cannot be equal to 97)

124. a Required probability

$$= \frac{1}{2} \times \frac{{}^5C_1 \times {}^3C_1}{{}^8C_2} + \frac{1}{2} \times \frac{{}^4C_1 \times {}^5C_1}{{}^9C_2}$$

$$= \frac{1}{2} \left(\frac{15}{28} + \frac{20}{36} \right) = \frac{275}{504}$$

125. b Consumption = Production – Exports

Consumption (in million kg) in:

$$2006 = 186.5 - 114 = 72.5$$

$$2007 = 202 - 114 = 88$$

$$2008 = 238 - 130 = 108$$

$$2009 = 221 - 116 = 105$$



$$2010 = 215 - 88 = 127$$

Percentage increase in:

$$2007 = \frac{15.5}{72.5} \times 100 = 21.379\%$$

$$2008 = \frac{20}{88} \times 100 = 22.727\%$$

$$2009 = (-ve) \Rightarrow \text{decrease}$$

$$2010 = \frac{22}{105} \times 100 = 20.95\%$$

So, it is highest in the year 2008.

126. c 2008 → Consumption = 108 million kg

Percapita consumption = 38.7 kg

$$\text{Population} = \frac{108}{38.7} = 2.79 \text{ million}$$

127. a Ratio of Export to Consumption in:

$$2006 = \frac{114}{72.5} = 1.57$$

$$2007 = \frac{114}{88} = 1.295$$

$$2008 = \frac{130}{108} = 1.203$$

$$2009 = \frac{116}{105} = 1.104$$

Therefore, the ratio is highest in the year 2006.

128. d Population (in millions) in:

$$2007 = \frac{88}{35.2} = 2.5$$

$$2008 = \frac{108}{38.7} = 2.79$$



$$2009 = \frac{105}{40.5} = 2.59$$

$$2010 = \frac{127}{42} = 3.02$$

Therefore, population is highest in the year 2010.

129. b The percentage of time spent in school = $\frac{105}{360} \times 100 \approx 30\%$.

130. c Percentage of time spent in games in comparison to sleeping
 $= \frac{30}{120} \times 100 = 25\%$.

131. b Time spent on games increased from $30 \xrightarrow{+15} 45$

The sleeping decreased from $120 \xrightarrow{-15} 105$

So percentage decrease = $\frac{15}{120} \times 100 = 12.5\%$

132. c Time spent in school – Time spent in home work

$$= \frac{60}{360} \times 24 = 4 \text{ hours}$$

133. b Total time spent in Mathematics home work

$$= \frac{\text{Time spent in home work}}{3} = \frac{\frac{45}{360} \times 24}{3} = 1 \text{ hour}$$

Time spent on remaining subjects = $3 - 1 = 2$ hrs

134. b By using basic proportionality theorem,

$$\frac{AB}{BC} = \frac{DE}{EF} \Rightarrow \frac{2}{4} = \frac{1.5}{EF} \text{ or } EF = 3 \text{ cm}$$

= 4 hours

135. **The exam conducting body has pronounced this question incorrect. Students shall not be marked on this question.**

$$\log_{10} 10 + \log_{10} 10^2 + \dots + \log_{10} 10^n = 1 + 2 + 3 + \dots n$$



$$\frac{n(n+1)}{2} = \frac{n^2+n}{2}$$

(Answer options in the actual paper were misprinted.)

136. a Let the required number be 'a'.

According to question,

$$a + \frac{1}{a} = 3 \left\{ a - \frac{1}{a} \right\} \Rightarrow \frac{4}{a} = 2a \text{ or } a^2 = 2 \Rightarrow a = \pm\sqrt{2}$$

137. a Smallest natural number greater than 10, which is divisible by 9 is 18 and the largest natural number less than 300, which is divisible by 9 is 297.

Therefore, number of numbers $\frac{297-18}{9} + 1 = 32$

138. c ${}^n C_x = 56$... (i)

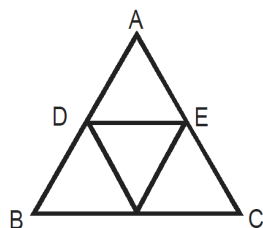
${}^n P_x = {}^n C_x \times x! = 336$... (ii)

Now, on dividing equation (ii) by (i), we get

$$x! = 6 \text{ or } x = 3$$

Therefore, ${}^n C_3 = 56$

By using options, we get $n = 8$.



139. a

Here, $DE \parallel BC$ and $DE = \frac{1}{2} BC = 12 \text{ cm}$

Sum of perimeters of triangles so formed

$$= 72 + 36 + 18 + \dots \infty = 72 \left\{ 1 + \frac{1}{2} + \frac{1}{4} + \dots \infty \right\}$$



$$= 72 \times \frac{1}{1 - \frac{1}{2}} = 72 \times \frac{1}{\frac{1}{2}} = 144 \text{ cm}$$

140. c A leap year has 52 complete weeks and 2 days i.e. 366 days.

Remaining two days should be in any one of the following formats:

Case - I		Case - II		Case - III	
Sat	Sun	Sun	Mon	Mon	Tue
$\frac{1}{7}$		$\frac{1}{7}$		$\frac{1}{7}$	

141. b $3x + 4y = 12$

X – Intercept: At $y = 0$, $3x = 12$ or $x = 4$

Y – Intercept: At $x = 0$, $4y = 12$ or $y = 3$

142. b As per the instructions given in the question,

Let 'a' be $36 - x$ and 'd' be $36 + x$.

Let 'b' be $34 - y$ and 'c' be $34 + y$.

Let 'a' be $30 - p$ and 'b' be $30 + p$.

Let 'c' be $40 - q$ and 'd' be $40 + q$.

Now, by using two values of b, we can find only one prime number between 30 and 34 i.e. 31.

So, $y = 3$ and $p = 1$

Also, $a = 30 - p = 36 - x$

$\Rightarrow 29 = 36 - x$ or $x = 7$

and $d = 36 + x = 36 + 7 = 43$

Required difference = $d - a = 43 - 29 = 14$.

143. d Let us assume that we have total of 8 kg Rasgullas. So the composition of flour and sugar will be 5 kg and 3kg respectively.

Let $3x$ and $7x$ be cost price of flour and sugar respectively.

Total cost (in Rs.) incurred

$$= 5 \times 3x + 3 \times 7x$$

$$= 15x + 21x = 36x$$



According to question,

$$\text{S.P.} = \left(1 + \frac{66.66}{100}\right) \times \text{C.P.}$$

$$\Rightarrow 15 \times 8 = \left(1 + \frac{2}{3}\right) \times 36x \text{ or } x = 2$$

So, cost of 1 kg sugar = Rs. $7x$ = Rs. 14

- 144.** a Due to 20% reduction in price, the person can save Rs. 48 and hence can purchase 6 kg extra sugar.

$$\text{Therefore, new cost of sugar} = \frac{48}{6} = \text{Rs. 8 per kg}$$

As this new price is 20% less than the original price, original price of

$$\text{sugar is } \frac{8}{0.8} = \text{Rs. 10 per kg.}$$

- 145.** d Volume of sphere = Volume of cone

$$\Rightarrow \frac{4}{3} \pi r^3 = \frac{1}{3} \pi r^2 h$$

$$\Rightarrow \frac{h}{r} = \frac{4}{1}$$

- 146.** a Let speed (in m/s) of scooter, car and train be y , $4y$ and $16y$ respectively. Let they all cover equal distance of 'd' meters.

$$\text{Time taken by each respectively is } \frac{d}{y}, \frac{d}{4y} \text{ and } \frac{d}{16y}$$

Required ratio of time taken/velocity is given as:

$$\text{Scooter : Car : Train} = \frac{\frac{d}{y}}{\frac{d}{4y}} : \frac{\frac{d}{4y}}{\frac{d}{16y}} : \frac{\frac{d}{16y}}{\frac{d}{16y}}$$

$$= 1 : \frac{1}{4 \times 4} : \frac{1}{16 \times 16} = 256 : 16 : 1.$$

- 147.** b As 'A' takes 15 days, B will take $\frac{15}{2}$ days.



Let for 'n' days both 'A' and 'B' work together.

'A' works for the 11 days and 'B' works for 'n' days,

$$\Rightarrow \frac{11}{A} + \frac{n}{B} = 1$$

$$\Rightarrow \frac{11}{15} + \frac{2n}{15} = 1$$

$$\Rightarrow \frac{2n}{15} = 1 - \frac{11}{15} = \frac{4}{15} \text{ or } n = 2 \text{ days.}$$

148. d $A + B + C + D = 56$ lakhs

$$B + C + D = 4.6A$$

$$A + 4.6A = 56$$

$$A = 10 \text{ lakhs} \quad \dots(i)$$

$$B \left(1 + 3 \frac{2}{3} \right) = 56$$

$$B \left(1 + \frac{11}{3} \right) = 56$$

$$B \frac{14}{3} = 56$$

$$B = 12 \text{ lakhs} \quad \dots(ii)$$

$$C = 0.4 \times (A + B + D)$$

$$(A + B + D) (1 + 0.4) = 56$$

$$(10 + 12 + D) 1.4 = 56$$

$$22 + D = 40$$

$$D = 18 \text{ lakhs}$$

149. d Let the salary of Saroj be Rs. 100

Raju	Ram	Saroj
Rs. 80	Rs. 70	Rs. 100

$$\text{Required percentage} = \frac{80 - 70}{70} \times 100 = 14.28\%.$$



150. d Let the original length and the new length be L_1 and L_2 respectively.

$$\pi r^2 \times L_1 = \pi \left(\frac{r}{3}\right)^2 \times L_2$$

Therefore, $L_2 = 9L_1$