



# INFINITESIMAL

## PRACTICE SET -2

iNFINITESIMAL  
*from Zero to Infinity*



# Reasoning

## PUZZLE

1. Eight persons A, B, C, D, E, F, G and H are having different ages. Their ages are consecutive multiple of 3 but not necessarily in the same order. They like different colors i.e. Yellow, Brown, White, Black, Red, Pink, Orange and Blue, not necessarily in the same order. C is 39 years old and likes Black color. D's age is half the age of E's age. The one who likes Pink is 24 years old. The one who likes Brown is 9 years elder to D. F likes Orange and younger to the one who likes Brown. H is 6 years elder to F. The one who likes White is younger to F. E is elder to G who likes Yellow. A is 30 years old and elder to H. The one who likes Red is younger to G.

2) Eight friends Esha, Farhan, Gauri, Hemant, Isha, Jagan, Kamal and Lokesh are sitting in a straight line facing north. All persons except two like a colour out of Red, Blue, Green, White, Black and Brown.

- Two persons who do not like a colour are not sitting adjacent to each other. Jagan is sitting second to the right of Hemant. Lokesh is not sitting on any of the extreme ends.
- Gauri likes green. Jagan likes Black. One who likes blue is sitting to the immediate left of Gauri.
- Esha is sitting third to the left of Gauri. Farhan is sitting adjacent to Esha.
- Farhan is sitting fifth to the left of Isha who is at one of the extreme ends.
- Any two persons who like a colour out of blue, black and brown are not neighbours.
- One who likes White is seating fifth to the right of one who likes Red. Esha does not like any colour.



# Miscellaneous

- 1. There is a family of eight persons - A, C, D, F, J, K, M and T. It has three generations and two couples. M is the mother of J, who is the husband of T. K is father-in-law of T, who is mother of two daughters. F is the brother of two sisters, one of whom is married. A and C are grandchildren of K. F is the brother-in-law of J.  
  
It is given that either both or none of the parents of a child is alive
- 2. Ram starts moving in east direction from his house and after moving 20 km, he takes a left turn and moved for 5 km to reach the Bakery. Then he turned towards northwest direction and moves 13 km in the same direction to reach his school. While, Shyam starts from his house and moves 2 km in north direction and then takes a left turn and after moving for 10 km, he turns right and walks for further 3 km and finally takes a left and moves for 12 km to reach the school. Bakery is 10 km to the west of house of Shyam.(Ram and Shyam, both went to same school)



# Reading Comprehension

Paragraph 1: The skeletons can't seem to stop tumbling out of the closets of Indian companies. ICICI Bank will soon have as many committees investigating its past workings, as there are bad loans on its books. Meanwhile, Fortis Healthcare continues to be a can of worms without an end. And those are just the more visible ones. Multiple surveys on frauds in companies rank India at the top of the heap of infamy, with growing incidence of various acts of corporate corruption. The Reserve Bank of India data reveals that public sector banks alone reported 8,670 cases of "loan fraud" between 2012 and 2017. Similarly, the number of investigations completed every year by the Serious Fraud Investigation Office (SFIO) has quadrupled over the past five years. That's not even counting the cases that are being handled by other agencies such as the Central Bureau of Investigation, Enforcement Directorate, Directorate of Revenue Intelligence and the Economic Offences Wing.

Paragraph 2: Sadly, 27 years after economic liberalization eased the rules of doing business for Indian companies, frauds, manipulation, insider trading, kickbacks, diversion of funds and downright theft are rampant. Ironically, this is happening at a time when there's a huge effort to further improve the ease of doing business. So, is it that in post-liberalization India, many more companies and their presiding executives are fiddling with the rules? Or is it that, as happened in the case of crimes against women, where more women are now emboldened to file reports, more such acts are being taken up by investigating agencies?

Paragraph 3: Unfortunately, that doesn't seem to be the case since most of the fraud detection is happening at the prompt of whistle-blowers and new managements, rather than the internal and external control mechanisms of companies. Otherwise, how does one explain the clear irregularities in both Fortis and ICICI Bank that went on for years, without being flagged? The SFIO acts either on receipt of a report of the registrar or inspector or on intimation of a special resolution passed by a company requesting an investigation into its affairs or on the request of any department of the central government or state governments. It is also mandated to act in public interest, but mostly it has done so after company boards have been pressed into recommending a probe into the affairs of the firms they were expected to be monitoring in the first place.

Paragraph 4: If anything, internal audit committees, boards, external auditors and even market regulators, expected to provide the necessary checks, have patently failed to deliver. Market regulator Securities and Exchange Board of India, which should be the final gatekeeper for listed companies, has been toothless so far if one goes by its low indictment rate. What's more, technology, which should ideally make systems tighter and processes foolproof, has actually facilitated the frauds in several cases, including at Punjab National Bank and ICICI Bank. No wonder that the public perception is that of an unholy nexus of companies and institutions with a benign regulator looking on. A survey by EY on the changing dynamics of white-collar crime in India stated that a whopping 87% of the respondents believe that the rise in non-performing assets or stressed asset numbers is due to the diversion of funds to unrelated businesses or fraud.

Paragraph 5: What's the answer then to this worrying trend? Idealistic homilies are clearly not enough. The trouble is, most companies and executives believe they can get away with it. After all, a weighty phone call goes a long way in the world of business and politics. Armed with batteries of lawyers, who can often run rings around the inadequate forensics of the investigating agencies, the worst that can happen to a top executive charged with white-collar crimes is a fine and some censure. We do treat our business icons with exaggerated respect.

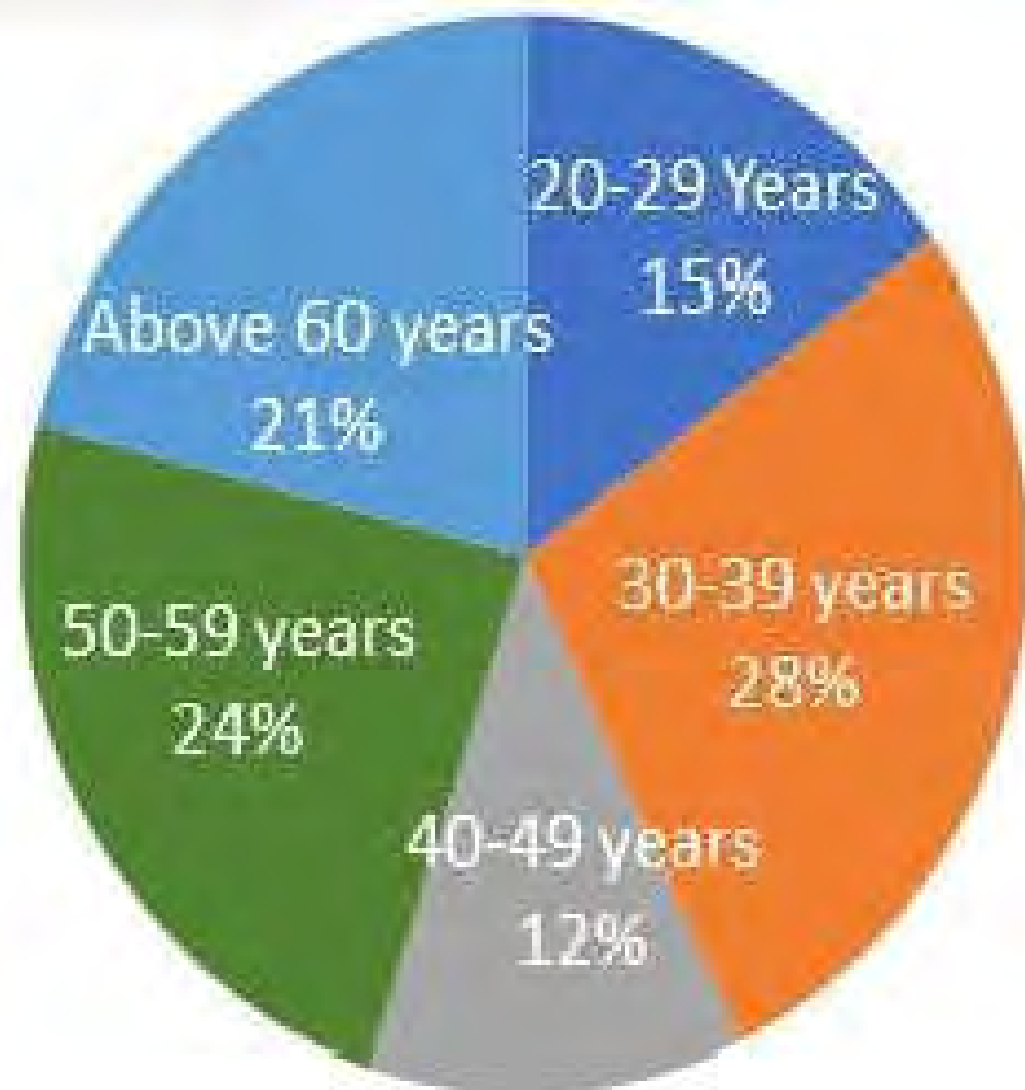


# Questions ??

- 1. What does "the skeletons can't seem to stop tumbling out of the closets" mean?  
A An embarrassing or shameful secret.  
B Join a popular trend or activity.  
C Being Inquisitive can lead you into an unpleasant situation.  
D Looking in the wrong place.  
E Being at the right place at the wrong time
- 2. What is the tone of the author of the passage?  
A Pessimistic  
B Anecdotal  
C Cynical  
D Indignant  
E Dismissive
- 3. What is the primary purpose of the author of the passage?  
A To highlight the menace of fraud that plagues the Indian banking system and the inadequacy of investigating agencies to prevent fraudulent practices.  
B To highlight the role of whistle blowers and new management in unearthing bank scams.  
C To highlight the nexus between executives and politicians and how they manipulate the system to their advantage.  
D To highlight the recent cases of fraud in ICICI and PNB and its implication on the Indian economy.  
E None of the above
- 4. Which out of the following can be inferred from the passage?  
A There is a lack of coordination among various investigating agencies which has stalled the process of enquiry.  
B There are several other bank fraud cases that have not been uncovered as of yet.  
C Despite having ample power to regulate these institutions, RBI remained a mute spectator.  
D Agencies so far have acted on their own to expose these bank scams.  
E None of the above
- 5. Which of the following is closest in meaning to the word 'homilies' as used in the passage?  
A sermon  
B diatribe  
C rebuke  
D retribution  
E None of the above
- 6. Which of the following is true as per the passage?  
A Committees are looking into the past workings of ICICI  
B RBI data shows that PSBs reported more than 8000 cases of loan fraud after 2012  
C There are several agencies in India that handle the cases of bank fraud.  
D All of the above.  
E None of the above



# QUANT



- **Direction :** Study the following pie chart carefully and answer the questions given beside. The following pie chart gives the information about the percentage distribution of central government employees by age profile.
- 
- **1.** Out of 2.68 lakhs central government employees, how many are above 60 years old?
- 
- **2.** Out of 6.8 lakhs seats, only 4.2 lakhs are employed. If the government plans to fill all the empty seats by giving 20% reservation for ex-servicemen of the age profile of 30 – 49 years and remaining seats are filled by freshers of the age profile of 20 – 29 years then total how many freshers will be hired by the government?
- 
- **3.** 2.6 lakhs candidate were to be selected out of the 18.6 lakhs candidates who had applied for government job. Out of the applied candidates 20% of them were ex-servicemen and the number of seats reserved for them was 20%, then approximately what percentage of the number of ex-servicemen applicants will be selected ?
- 
- **4.** The number of central government employees of age profile of 50 years or greater than 50 years is how much percentage more than that of 20 – 29 years?
- 
- **5.** By what percent the number of central government employees of age profile of 40 – 49 years is less than that of 30 – 39 years?



# SOLUTION

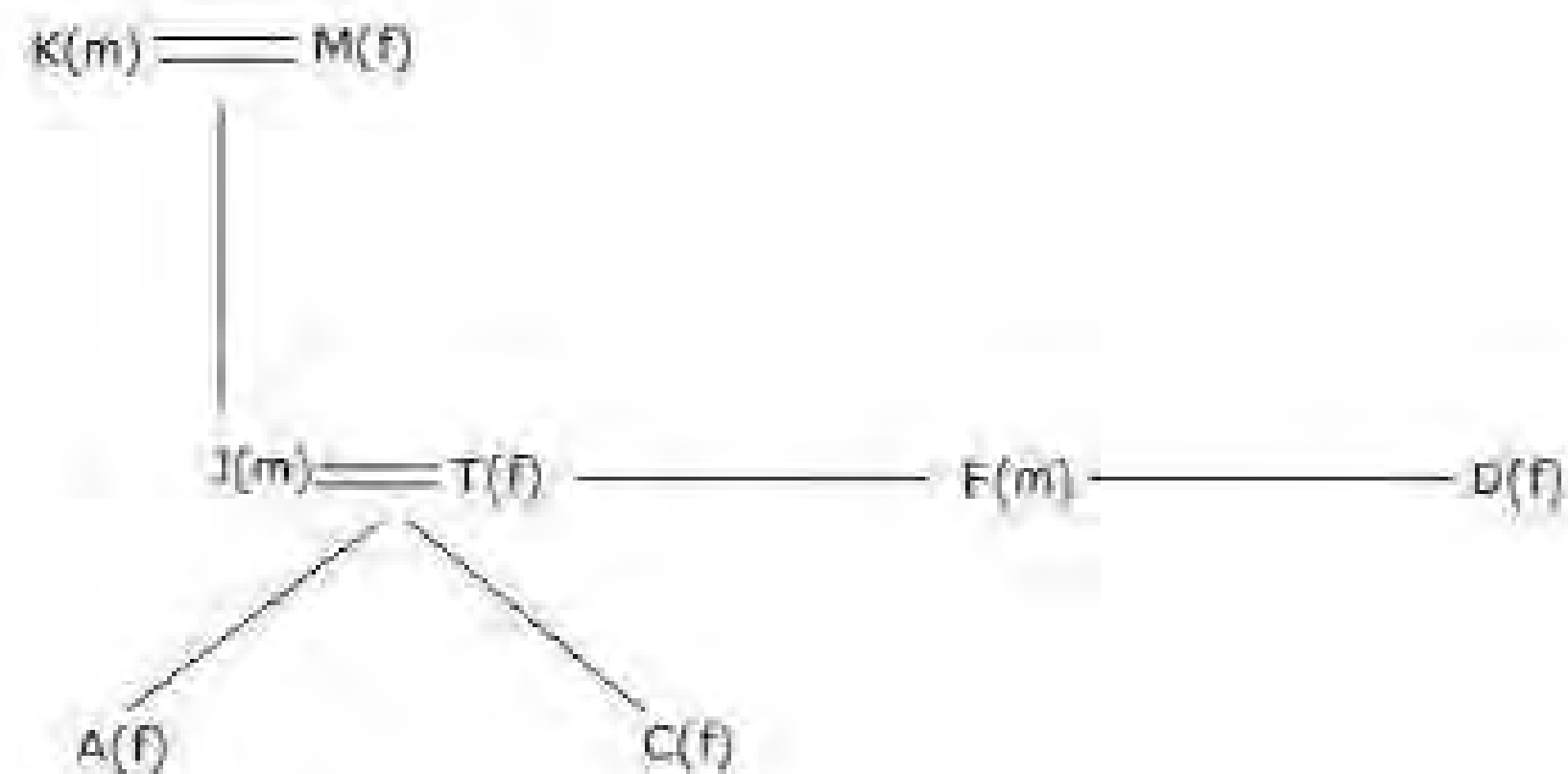
1)

<u>D</u>	<u>F</u>	<u>B</u>	<u>H</u>	<u>A</u>	<u>G</u>	<u>E</u>	<u>C</u>
18	21	24	27	30	33	36	39
(White)	(orange)	(pink)	(brown)	(red)	(Yellow)	(blue)	(black)

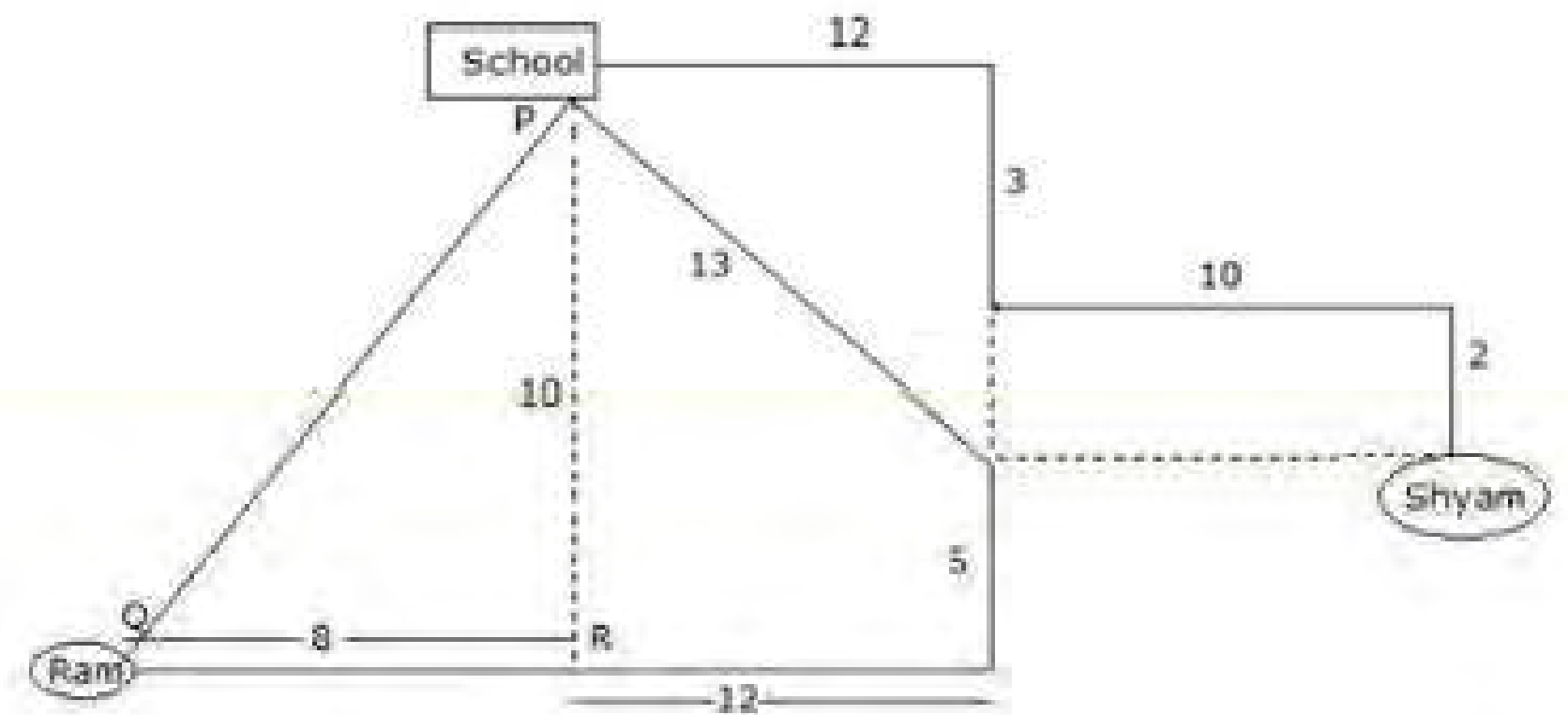
2)

Kamal(Brown) Esha(None) Farhan(Red) Hemant(Blue) Gauri(Green) Jagan(Black) Lokesh(None) Isha(White)

3)



4)



from your university



# Comprehension Solution

1) Skeleton in the closet or skeleton in the cupboard is a colloquial phrase and idiom used to describe an undisclosed fact about someone which, if revealed, would damage the reputation of the concerned person.

In the context of the passage it has been used for banks and their credibility.

Hence, option A is correct.

2) Refer to the lines: "No wonder that the public perception is that of an unholy nexus of companies and institutions with a benign regulator looking on."

"What's the answer then to this worrying trend? Idealistic homilies are clearly not enough. The trouble is, most companies and executives believe they can get away with it."

"We do treat our business icons with exaggerated respect."

"If anything, internal audit committees, boards, external auditors and even market regulators, expected to provide the necessary checks, have patently failed to deliver."

"Market regulator Securities and Exchange Board of India, which should be the final gatekeeper for listed companies, has been toothless so far if one goes by its low indictment rate."

Pessimistic: seeing the worst side of things

Anecdotal: involving short narratives of interesting events

Cynical: displaying a belief that people are always self-seeking and never altruistic in their actions

Indignant: Marked by anger, aroused by justice

Dismissive: feeling or showing that something is unworthy of consideration.

Hence, option D is correct.

3) Refer to the line: "The skeletons can't seem to stop tumbling out of the closets of Indian companies. ICICI Bank will soon have as many committees investigating its past workings, as there are bad loans on its books."

The Reserve Bank of India data reveals that public sector banks alone reported 8,670 cases of "loan fraud" between 2012 and 2017. Similarly, the number of investigations completed every year by the Serious Fraud Investigation Office (SFIO) has quadrupled over the past five years.

The SFIO acts either on receipt of a report of the registrar or inspector or on intimation of a special resolution passed by a company requesting an investigation into its affairs or on the request of any department of the central government or state governments.

Option B, C and D are very limited in their scope.

Hence, option A is correct.

4) Refer to the lines: Meanwhile, Fortis Healthcare continues to be a can of worms without an end. And those are just the more visible ones. Multiple surveys on frauds in companies rank India at the top of the heap of infamy, with growing incidence of various acts of corporate corruption.

That's not even counting the cases that are being handled by other agencies such as the Central Bureau of Investigation, Enforcement Directorate, Directorate of Revenue Intelligence and the Economic Offences Wing.

Option A is incorrect. There is no mention in the passage on the lack of coordination.

Option C is incorrect. Refer to the lines: The SFIO acts either on receipt of a report of the registrar or inspector or on intimation of a special resolution passed by a company requesting an investigation into its affairs or on the request of any department of the central government or state governments. It is also mandated to act in public interest, but mostly it has done so after company boards have been pressed into recommending a probe into the affairs of the firms they were expected to be monitoring in the first place.

Option D is incorrect. Refer to the lines: Unfortunately, that doesn't seem to be the case since most of the fraud detection is happening at the prompt of whistle-blowers and new managements, rather than the internal and external control mechanisms of companies.

Hence, option B is correct.

5) Homily: a tedious moralizing lecture.

Sermon: a long or tedious piece of admonition or reproof; a lecture.

Diatribes: a forceful and bitter verbal attack against someone or something

Rebuke: express sharp disapproval or criticism of (someone) because of their behaviour or actions.

Retribution: punishment inflicted on someone as vengeance for a wrong or criminal act.

Clearly, option A is the closest in meaning to the word homily.

Hence, option A is correct.

6) Option A is correct. Refer to the lines: ICICI Bank will soon have as many committees investigating its past workings, as there are bad loans on its books.

Option B is correct. Refer to the line: The Reserve Bank of India data reveals that public sector banks alone reported 8,670 cases of "loan fraud" between 2012 and 2017.

Option C is correct. Refer to the line: Similarly, the number of investigations completed every year by the Serious Fraud Investigation Office (SFIO) has quadrupled over the past five years.

That's not even counting the cases that are being handled by other agencies such as the Central Bureau of Investigation, Enforcement Directorate, Directorate of Revenue Intelligence and the Economic Offences Wing.

Hence, option D is the correct answer.



# Quant Solution

1)

**Explanation:**

From the chart, 21% of the total number of employees are above 60 = 21% of 2.68

$$= \frac{12 \times 2.68}{100} = 0.5628 \text{ lakhs} = 56.28 \text{ thousand}$$

Hence, option E is correct.

2)

**Explanation:**

The total number of vacant seats =  $6.8 - 4.2 = 2.6$  lakhs

Reservation for ex servicemen

$$= 20\% \text{ of } 2.6 \text{ lakhs} = \frac{20 \times 2.6}{100} = 0.52 \text{ lakhs}$$

The total number of freshers will be hired =  $2.6 - 0.52 = 2.08$  lakhs

Hence, option A is correct.

3)

**Explanation:**

The total number of ex - servicemen applicants = 20% of 18.6 = 3.72 lakhs

Reservation for ex-servicemen

$$= 20\% \text{ of } 2.6 \text{ lakhs} = \frac{20 \times 2.6}{100} = 0.52 \text{ lakhs}$$

$$\text{The reqd. \%} = \frac{0.52 \times 100}{3.72} = 13.97\% = \text{approximately } 14\%$$

4)

**Explanation:**

Let the total number of central government employees =  $100x$

The number of central government employees of age profile of 50 years or greater than 50 years =  $(24 + 21)\%$  of  $100x = 45x$

The number of central government employees of age profile of 20 - 29 years =  $15\%$  of  $100x = 15x$

$$\text{The reqd. \%} = \frac{(45x - 15x) \times 100}{15x} = \frac{30x \times 100}{15x} = 200\%$$

5)

**Explanation:**

Let the total number of central government employees =  $100x$

The number of central government employees of age profile of 40 - 49 years =  $12\%$  of  $100x = 12x$

let the total number of central government employees =  $100x$

The number of central government employees of age profile of 30 - 39 years =  $28\%$  of  $100x = 28x$

$$\text{The reqd. \%} = \frac{(28x - 12x) \times 100}{28x} = \frac{16 \times 100}{28} = 57.14\%$$





THANK YOU

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