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बैंक परीक्षाओ के लिए निश्चित रूप से सर्वश्रेष्ठ मॉक टेस्ट सीरीज

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The Question Bank

Percentage Questions for SBI PO Pre, IBPS PO Pre, SBI Clerk Mains, IBPS Clerk Mains & LIC AAO Exams.

Direction: Read the following questions carefully and choose the right answer.

1. A man distributes 10%, 18% and 22% of his salary into his three children who spend 40%, 60% and 25% of that amount respectively. The difference between the total amount left with the children and man is Rs. 1015. What is the salary of the man?

A. Rs. 6000   B. Rs. 4200   C. Rs. 4800   D. Rs. 5000   E. Rs. 5600

2. Salary of A is 37.5% of the total salary of A and B. B saves 60% of his salary and total savings of A and B is 50% of their total income. Their average expenditure is Rs 16000. What is the total salary of A and B?

A. Rs. 96000   B. Rs. 54000   C. Rs. 72000   D. Rs. 64000   E. Rs. 48000

3. In a class 25% of the students passed in both English and Hindi. 37.5% of the students failed in both the subjects while 60% students failed in Hindi. The difference between the students who passed in English and those who passed in Hindi is 15. What is the total number of students in class?

A. 180   B. 420   C. 360   D. 200   E. 240

4. Out of total students 100/3 % are in hostel A and remaining are in hostel B. If 20 students from hostel B are shifted to hostel A, then total students in hostel A becomes 50% of total students. If 20 students from hostel A are shifted to hostel B, then the total students in hostel A becomes what per cent of total students?

A. 26.34%   B. 16.67%   C. 12.75%   D. 20.67   E. None of these

5. AB de Villiers smashes 86 runs against Australia in 16 balls. If he only scored in boundaries(fours and sixes) only, then find the maximum percent of runs he scored by hitting fours.

A.23.25%   B. 26.4%   C. 74.5%   D. 28%   E. None of these

6. On a Big Billion day sale ,Google flagship mobile phone was available at a discount of 20% on Flipkart. The customers who are purchasing for the first time on Flipkart will get additional cashback of 10 % on the billing amount. Suraj being 1st time user of Flipkart purchases the mobile phone for Rs. 36000, find the actual cost price of the mobile phone.

A. Rs. 50000   B. Rs. 45000   C. Rs. 52250   D. Rs. 47250   E. None of these

7. As per a company policy only 25% of the female employees and 20% of the male employees can hold the positions higher than level 2. If the ratio of female and male employees in the company is 3 : 2, then find the percentage of employees which are working below level 2..

A. 75%   B. 77%   C. 70%   D. 72%   E. 79%

8. A dishonest salesman buys x% more grains than what he pays for ,while selling he uses counterfeit weight which measures 800 grams for every 1000 grams. If he sells the item at 10% above the cost price and earn an overall profit of 65%, then find the value of x.

A. 20%   B.25%   C. 35%   D. 15%   E. None of these

9. In an exam minimum qualifying marks for class IX and X are 30% and 45% respectively. It is known that total marks of each class are same and a boy of class X scored 1225; thereby failing by 125 marks. Find passing marks for class IX.

A. 900   B. 1200   C. 1500   D. 925   E. None of these

10. XYZ publication started with 2000 novels. The printing cost, packaging cost and delivery cost of each novel is Rs. 150, Rs. 20 and Rs. 50 respectively. If 40% of the novels are sold at 3/4th of the cost price, then how much percent above the cost price should the remaining novels be sold to get 20% profit on total expenditure?

A. 25%   B. 20%   C. 30%   D. 40%   E. 50%

11. A pickpocket stole the wallet of Mr. Jitender. Jitender remembers that before he lost his wallet he bought a notebook and a marker. He pays 1/5th of his money for buying the notebook, and of the remaining, he spends 25% on buying marker which is equal to Rs. 12. Find the amount of money lost by Mr. Jitender.

A. Rs. 125   B. Rs. 75   C. Rs. 100   D. Rs. 60   E. None of these

12. A survey was conducted in a village to know the reason of Deaths due to Critical Diseases. Number of people who died due to Diabetes were 20% of the total population. It was found that 2000 people died due to lung cancer. The people who died of Diabetes were 1200 more than those who died of Lung Cancer. If the people who died of lung cancer were 33.33 % of the people who smoke, then what percent of total population were smokers?

A. 40%   B. 62.5%   C. 37.5%   D. 28.50%   E. 32.50%

13. Rahim spent 10% of his yearly income on house rent, 14% on buying a new car, 12% on kids' school. He spent 15% and 10% of the remaining on groceries and vacation in Spain. If he saved Rs.518400 in the entire year, then find his monthly salary?

A. Rs. 90000　　　B. Rs. 108000　　　C. Rs. 98000　　　D. Rs. 136000　　　E. None of these

14. Two villages Ramnagar and Jamnagar had same population 2 years ago. Population of Ramnagar decreased at R% p.a. while population of Jamnagar increased at R% p.a. Today, the difference between their population is 1000R, then what was the population of any village 2 years ago?

A. 15000　　　B. 20000　　　C. 25000　　　D. Data insufficient　　　E. None of these

15. The bank deposit of Raman is 100% more than that of Aman and 75% more than that of Jatin. Raman's deposits are what percent of the total deposits of Aman and Jatin together?

A. 93.67%　　　B. 92.67%　　　C. 93.33%s　　　D. 91.33%s　　　E. None of these

16. In a school, 40% students are in high school or above and rest are in junior high school or below. Of those who are in high school or above, ratio of boys to girls is 7 : 3, and those in junior high school or below have boys to girls in ratio 7 : 5. Ratio of boys in high school or above to junior high school or below:

A. 2 : 3　　　B. 4 : 3　　　C. 3 : 4　　　D. 4 : 5　　　E. None of these

17. In an examination of IBPS SO, Rahul scored 92% marks, Nishant scored 56% and Samarth scored 634 marks out of the total marks. Average marks scored by them was 643. What percentage of the total marks did Samarth get in the IBPS SO exam?

A. 66.23%　　　B. 68.34%　　　C. 72.45%　　　D. 76.67%　　　E. None of these

18. The speed ratio of A, B and C is 5 : 4 : 3. All of them start running together on a track and match their respective wrist watches when they finish the race. C completes race in 20 min. When B finishes the race the wrist watch of A shows 7:27PM. When C finishes the race his watch shows 7:30PM and wrist watch of B shows 7:16PM. At the start of the race what is the difference between the time in the wrist watch of A and B?

A. 15 min　　　B. 16 min　　　C. 12 min　　　D. 6 min　　　E. None of these

19. The monthly salary of A is 20% more than the monthly salary of B. If the savings of A is Rs. 24000 which is 40% of the monthly salary of A, then find the monthly salary of B.

A. Rs.. 54000   B. Rs. 66000   C. Rs.. 60000   D. Rs. 50000   E. Rs. 55000

20. Monthly incomes of A and B are Rs. 42600 and Rs. 48500 respectively. A spends 29%, 17% and 42% of his total income in food, rent and other expenses respectively while B spends 24%, 19% and 38% of his total income in food, rent and other expenses respectively and rest of the amount are saved by both of them. Find the difference between the amount saved by A and B.

A. Rs. 4103   B. Rs. 4208   C. Rs. 4433   D. Rs. 4083   E. Rs. 4354

21. Four friends A, B, C and D went for dinner. A paid 40% of the bill. Of the remaining bill, B paid 50%. Of the remaining bill, C paid 60%. D paid the remaining Rs. 924. What is the difference (in Rs.) between the amount paid by A and C?.

A. 770   B. 1694   C. 2310   D. 2156   E. 7700

22. Rajeev spends 40% of his monthly salary on rent; he spends 30% of the remaining on Shopping and 200/7% of the remaining on Electricity. He saves 50% of the remaining amount which when combined with his last month's savings which were 10% of the last month's salary amounts to Rs 1500. What is Rajeev's monthly salary?

A. Rs. 6000   B. Rs. 5000   C. Rs. 8000   D. Rs. 6800   E. None of these

23. Rajeev tells Aman and Kishor a two digit number. He then tells Aman to calculate 166.67% of the number and Kishor to find 66.67% of the number given. The end result of Aman is 3 more than that of Kishor. If by mistake Kishor had written the original number in reverse order, what was the number given by Rajeev?

A. 36   B. 54   C. 39   D. 27   E. None of these

24. The area covered by the hour hand of a wall clock between time 4 : 26 and 6 : 50 is what percent of the area covered by it in 15 hours?

A. 15%   B. 14%   C. 12%   D. 16%   E. None of these

25. A, B and C are three numbers with A > B > C. The average of the difference between A and B and the difference between B and C is equal to 10. The value of B is 1500% of the difference between B and C and 400% more than the difference between A and B. What is the value of B?

A.65   B. 70   C. 75   D. 95   E. None of these

26. Two friends A and B have some money in the ratio 4:3. If the money with A decreases by 17.5% and that with B increases by Rs 45, then the money with both of them becomes equal. What is the average of the money with them initially?

A. Rs. 525   B. Rs. 515   C. Rs. 435   D. Rs. 460   E. None of these

27. Nikhil got scores of five subjects Maths, Science, English, Hindi and Sanskrit. The score in hindi is equal to the average in Maths and Science and the score in English is 80% of the score in Hindi. The score in English is 200 and the average score is 240. What is the score in Sanskrit?

A. 240   B. 250   C. 270   D. 265   E. None of these

28. In a village election between two candidates, the winner secured 70% of the total votes cast and won by a majority of 12000 votes. How many votes did the losing candidate get?

A. 4500   B. 9000   C. 7000   D. 6500   E. None of these

29. Population of a village increased in first year by 20%, decreased in second year by 15% and again increased in third year by 10%. After three years population of the village is 106590. Find the initial population of the village.

A. 95000   B. 80000   C. 75000   D. 60000   E. None of these

30. In a town males and females are in the ratio 3 : 2. Out of males 25% are children and rest are adults. If the adult male population of the town is 8100, find the total population of the town .

A. 22000   B. 24000   C. 20000   D. 18000   E. None of these

31. In a class of 40 students and 10 teachers, each student got gifts that were 20% of total number of students and each teacher got gifts that were 15% of total number of students. How many gifts were there in total?

A. 360   B. 420   C. 300   D. 380   E. None of these

32. In an examination Tarang got 25% marks and failed by 64 marks. If he had got 40% marks he would have secured 32 marks more than the pass marks. Find the percentage of pass marks.

A. 224 marks   B. 250 marks   C. 150 marks   D. 295 marks   E. None of these

33. A company has 20 employees out of which 'x' employees are clerks and rests are officers. Average salary of all the employees in a company is Rs. 5300. Salary of an officer in the company is 275% more than the salary of a clerk in the company. Find the salary of all the clerks together if the number of officers in the company is 50% more than the number of clerks in the company.

A. Rs. 8000   B. Rs. 12000   C. Rs. 16000   D. Rs. 20000   E. None of these

34. Rahul got 20% more pocket money than his sister Amayra and Amayra got 20% more than her sister Pihu. If the total money received by all of them together is Rs. 5824, find how much pocket money did Pihu get.

A. Rs. 1800   B. Rs. 1550   C. Rs. 1750   D. Rs. 1600   E. Rs. 1200

35. There are two slabs of income tax, 9% tax for income up to 3lakh and 12.5% for income above 3 lakh. Arun tried to evade tax by hiding some of the income, to fall in the 9% tax slab. The amount hid by arun is 9/44 of the original taxable income. If arun paid Rs. 25,200 as tax, what is the original amount of tax he had to pay?

A. Rs. 35660   B. Rs. 44000   C. Rs. 31680   D. Rs. 40000   E. None of these

36. Mr. Sunil's monthly expenses are: 25% on food, 20% on clothing and 10% of the remaining on children's education. If he invests the remaining amount in two schemes X and Y in the ratio 5 : 4 respectively. The expenditure on children's education is what percent of his investment in the scheme X?

A. 25%   B. 20%   C. 28%   D. 30%   E. 22%

37. After spending 30% salary in rent, 25% of the remaining in Electricity and 28.56% of the remaining on shopping, Gaurav puts the remaining amount at compound interest of 20% p.a for 2 years. The interest received is Rs 6600. What is the monthly salary of Gaurav?

A. Rs. 42000   B. Rs. 48000   C. Rs. 45000   D. Rs. 40000   E. None of these

38. Aman has some money left after spending 25%, 15% and 30% of monthly salary on rent, electricity and shopping respectively. The remaining money with Aman increases by 16.67% when a friend gives him Rs. 4500. What is the monthly salary of Aman?

A. Rs 95000   B. Rs. 82000   C. Rs. 90000   D. Rs. 85000   E. None of these

39. In a colony, consisting of 3 sectors A, B and C, the female population of the 3 sectors are in the ratio of 2 : 3 : 4 respectively. In sector A, 55% of the female are working, in sector B, 25% of the female are working and in sector C, 50% of the female are working. Find the percentage of non – working female in the colony.

A. 50.46%   B. 62.03%   C. 57.22%   D. 54.67%   E. None of these

40. Abhimanyu's monthly salary in 2014 was Rs. 32000. Due to his good performance, his monthly salary was increased by 20% and 10% in the year 2015 and 2016, respectively with respect to the previous year. Further, there was a provision of deducting 5% of the salary as tax if the salary crosses Rs 40000 in a month. Find the monthly salary of Abhimanyu in the year 2016 after deducting the tax.

A. Rs. 40128   B. Rs. 41256   C. Rs. 39566   D. Rs. 39976   E. None of these

41. Raman spends 20% of his dad's income on tuition fees, 30% on room rent, and half of the remaining on food. He spends Rs. _____ on medicine. He saves Rs. 1750, which is 35% of the remaining amount after spending on the tuition fees, room rent and food.

A. Rs. 3254   B. Rs.3256   C. Rs. 3255   D. Rs.3250   E. Rs. 3234

42. The number of boys in a school is 1500 more than that of girls. Total number of girls selected for inter – school championship is 195 more than that of boys. If the number of boys and the number of girls selected in the championship are 13% and 18% of their respective strength, then find the difference between number of boys and number of girls who have not been selected.

A. 1244   B.1695   C.2358   D.1879   E. None of these

43. A person gives x% of his salary in rent, 15% in electricity, (2x+4)% in shopping and rest are his savings. His savings are 140% more than his expenditure on rent. What is the value of x?

A. 15   B. 12   C. 16   D. 9   E. 18

44. A person spends 20% of his salary on rent, 10% on shopping, saves 30% and the remaining he puts at compound interest of rate 12.5% p.a. for two years. If the interest received after two years is Rs. 6800, then what was the amount spent on shopping?

A. Rs. 6200   B. Rs. 5800   C. Rs. 7200   D. Rs. 6400   E. None of these

45. The maximum marks of paper A, C, D and E are 50%, 75%, 60% and 125% respectively of the maximum marks of paper B. The score obtained in A, B, C, D and E is in the ratio 6 : 14 : 12 : 9 : 21. The total percentage score of A and B together is 60%. What is the aggregate percentage score of all the papers?

A. 70.65%   B. 64.2%   C. 62.58%   D. 68.05%   E. 58.45%

46. A man spends 40% of salary on rent, from the remaining salary 30% and 40% is spent on electricity and shopping respectively, and the remaining Rs. 14400 is his savings. What is the amount spent on rent?

A. Rs. 48000   B. Rs. 32000   C. Rs. 36000   D. Rs. 28000   E. None of these

47. A and B are two candidates in an election and a voter can vote for either A or B. Candidate A gets 66.67% of the votes got by candidate B. If only 90% of eligible voters cast their vote and B gets 64800 more votes than A, how many eligible voters were there?

A. 326000   B. 360000   C. 420000   D. 540000   E. 320000

48. Class Q has 100% more students than class P. Number of girls in class P is equal to number of boys in class Q. The percentage of girls is the same in both classes. What percentage of the student group are boys combining both the classes?

A. 33.33%   B. 66.66%   C. 40%   D. 30%   E. None of these

49. Raju bought a total of 560 kg of Wheat, rice and pulses in the ratio 3 : 4 : 1 respectively. After 60% of wheat, 45% of rice and 20% of pulses are sold, the total weight of the remaining items is what percent of the initial total weight of rice and pulses?

A. 84%   B. 79%   C. 86%   D. 82%   E. None of these

50. The bacterial growth, in an experiment, increases by 27% in the 1st year of observation and by 20% in the subsequent year, then the ratio of number of bacteria at the end of 1st year to the end of 2nd year is

A. 5 : 6   B. 6 : 5   C. 2 : 3   D. 3 : 2   E. None of these

1. एक आदमी अपने वेतन का 10%, 18% और 22% अपने तीन बच्चों में वितरित करता है जो क्रमशः 40%, 60% और **25%** राशि खर्च करते हैं। बच्चों और आदमी के पास बची कुल राशि का अंतर 1015 रुपये है। आदमी का वेतन क्या है?

A. Rs. 6000   B. Rs. 4200   C. Rs. 4800   D. Rs. 5000   E. Rs. 5600

2. A का वेतन A और B के कुल वेतन का 37.5% है B अपने वेतन का 60% बचाता है और A और B की कुल बचत उनकी कुल आय का **50%** है। उनका औसत खर्च 16000 रुपये है। A और B का कुल वेतन कितना है?

A. Rs. 96000   B. Rs. 54000   C. Rs. 72000   D. Rs. 64000   E. Rs. 48000

3. कक्षा में 25% छात्र अंग्रेजी और हिंदी दोनों में उत्तीर्ण हुए। 37.5% छात्र दोनों विषयों में फेल हुए जबकि 60% छात्र हिंदी में फेल हुए। अंग्रेजी में उत्तीर्ण होने वाले और हिंदी में उत्तीर्ण होने वाले छात्रों के बीच का अंतर 15 है। कक्षा में कुल छात्रों की संख्या कितनी है?

A. 180   B. 420   C. 360   D. 200   E. 240

4. कुल छात्रों में से 100/3% छात्रावास A में हैं और शेष छात्रावास B में हैं। यदि छात्रावास B के 20 छात्रों को छात्रावास A में स्थानांतरित किया जाता है, तो छात्रावास A में कुल छात्र कुल छात्रों का 50% हो जाता है। यदि छात्रावास A के 20 छात्रों को छात्रावास B में स्थानांतरित किया जाता है, तो छात्रावास A में कुल छात्र कुल छात्रों का कितना प्रतिशत हो जाता है?

A. 26.34%   B. 16.67%   C. 12.75%   D. 20.67   E. इनमें से कोई नहीं।

5. एबी डिविलियर्स ने 16 गेंदों में ऑस्ट्रेलिया के खिलाफ 86 रन बनाए। यदि वह केवल केवल चौके और छक्के लगाता है, तो उसने अधिकतम कितने प्रतिशत रन चौके मारकर रन बनाए।

A.23.25%   B. 26.4%   C. 74.5%   D. 28%   E. इनमें से कोई नहीं।

6. बिग बिलियन डे सेल में, फ्लिपकार्ट पर गूगल फ्लैगशिप मोबाइल फोन 20% की छूट पर उपलब्ध था। जो ग्राहक पहली बार फ्लिपकार्ट पर खरीदारी कर रहे हैं, उन्हें बिलिंग राशि पर 10% का अतिरिक्त कैशबैक मिलेगा। सूरज फ्लिपकार्ट का पहली बार यूजर होने के नाते 36000 रुपये में मोबाइल फोन खरीदता है, मोबाइल फोन की वास्तविक कीमत का पता लगाएं।

A. Rs. 50000   B. Rs. 45000   C. Rs. 52250   D. Rs. 47250   E. इनमें से कोई नहीं।

7. कंपनी की नीति के अनुसार केवल 25% महिला कर्मचारी और 20% पुरुष कर्मचारी स्तर 2 से उच्च पदों पर आसीन हो सकते हैं। यदि कंपनी में महिला और पुरुष कर्मचारियों का अनुपात 3: 2 है, तो कर्मचारियों का प्रतिशत ज्ञात कीजिए जो स्तर 2 से नीचे काम कर रहे हैं।

A. 75%   B. 77%   C. 70%   D. 72%   E. 79%

8. एक बेईमान सेल्समैन x% अधिक अनाज खरीदता है जिसके लिए वह भुगतान करता है, जबकि वह बेचते समय नकली वजन जो प्रत्येक 1000 ग्राम के लिए 800 ग्राम मापता है। यदि वह लागत मूल्य से 10% अधिक पर वस्तु बेचता है और **65%** का समग्र लाभ कमाता है, तो x का मान ज्ञात कीजिए।

A. 20%   B. 25%   C. 35%   D. 15%   E. इनमें से कोई नहीं।

9. एक परीक्षा में कक्षा IX और X के लिए न्यूनतम योग्यता अंक क्रमशः 30% और 45% हैं। यह ज्ञात है कि प्रत्येक कक्षा के कुल अंक समान हैं और कक्षा X के एक लड़के ने 1225 अंक प्राप्त किए; जिससे 125 अंक से फेल हो गया। कक्षा IX के लिए उत्तीर्ण अंक प्राप्त करें।

A. 900   B. 1200   C. 1500   D. 925   E. इनमें से कोई नहीं।

10. XYZ प्रकाशन की शुरुआत 2000 उपन्यासों से हुई। प्रत्येक उपन्यास की छपाई लागत, पैकेजिंग लागत और वितरण लागत क्रमशः 150 रुपये, 20 रुपये और 50 रुपये है। यदि 40% उपन्यास लागत मूल्य **के** 3/4 पर बेचे जाते हैं, तो कुल लागत पर **20%** लाभ प्राप्त करने के लिए शेष उपन्यासों को लागत मूल्य से कितने प्रतिशत अधिक बेचा जाना चाहिए?

A. 25%   B. 20%   C. 30%   D. 40%   E. 50%

11. एक पाकेटमार ने श्री जितेंदर का बटुआ चुरा लिया। जितेन्द्र याद करते हैं कि बटुए को खोने से पहले उन्होंने एक नोटबुक और एक मार्कर खरीदा था। वह नोटबुक खरीदने के लिए कुल पैसों का 1/5 भाग भुगतान करता है, और वह मार्कर खरीदने के लिए शेष का 25% खर्च करता है जो कि 12 रुपये के बराबर है। श्री जितेन्द्र द्वारा खोई गई राशि का पता लगाएं।

A. Rs. 125   B. Rs. 75   C. Rs. 100   D. Rs. 60   E. इनमें से कोई नहीं।

12. गंभीर बीमारियों के कारण होने वाली मौतों का कारण जानने के लिए एक गाँव में एक सर्वेक्षण किया गया। मधुमेह के कारण मरने वालों की संख्या कुल आबादी का 20% थी। यह पाया गया कि फेफड़ों के कैंसर के कारण 2000 लोग मारे गए। मधुमेह से मरने वाले लोग फेफड़ों के कैंसर से मरने वालों की तुलना में 1200 अधिक थे। यदि फेफड़ों के कैंसर से मरने वाले लोग धूम्रपान करने वाले लोगों के 33.33% थे, तो कुल आबादी के कितने प्रतिशत लोग धूम्रपान करने वाले थे?

A. 40%   B. 62.5%   C. 37.5%   D. 28.50%   E. 32.50%

13. रहीम ने अपनी वार्षिक आय का 10% घर के किराए पर, 14% नई कार खरीदने पर, 12% बच्चों के स्कूल पर खर्च किया। उसने शेष का 15% और 10% क्रमशः किराने के सामान और स्पेन में छुट्टी पर बिताया। यदि उसने पूरे वर्ष में 518400 रुपये की बचत की, तो उसका मासिक वेतन ज्ञात कीजिए?

A. Rs. 90000   B. Rs. 108000   C. Rs. 98000   D. Rs. 136000   E. इनमें से कोई नहीं।

14. दो गाँव रामनगर और जामनगर की आबादी 2 साल पहले समान थी। रामनगर की जनसंख्या R% प्रतिवर्ष कम हो गई, जबकि जामनगर की जनसंख्या R% प्रतिवर्ष बढ़ गई, उनकी जनसंख्या का अंतर 1000R है, फिर 2 साल पहले किसी भी गांव की जनसंख्या क्या थी?

A. 15000   B. 20000   C. 25000   D. Data insufficient   E. इनमें से कोई नहीं।

15. रमन के पास बैंक जमा राशि अमन से 100% और जितिन से 75% अधिक है। रमन की जमा राशि अमन और जितिन की जमा राशि से कितने प्रतिशत हैं?

A. 93.67%   B. 92.67%   C. 93.33%s   D. 91.33%s   E. इनमें से कोई नहीं।

16. एक स्कूल में, 40% छात्र हाई स्कूल या उससे ऊपर वाली कक्षा के हैं और बाकी जूनियर हाई स्कूल में या नीचे वाली कक्षा के हैं। हाईस्कूल या उससे ऊपर वाली कक्षा में, लड़कों और लड़कियों की संख्या का अनुपात 7: 3 है, और जूनियर हाई स्कूल या उससे नीचे वाली कक्षाओं में, लड़कों और लड़कियों की संख्या का अनुपात 7: 5 है। हाई स्कूल या उससे ऊपर वाली कक्षा में लड़कों की संख्या और जूनियर हाई स्कूल या उससे नीचे वाली कक्षा में लड़कों की संख्या का अनुपात है:

A. 2 : 3   B. 4 : 3   C. 3 : 4   D. 4 : 5   E. इनमें से कोई नहीं।

17. **IBPS SO** की परीक्षा में, कुल अंकों में से राहुल ने 92% अंक प्राप्त किए, निशांत ने 56% और समर्थ ने 634 अंक प्राप्त किए। उनके द्वारा प्राप्त किए गए औसत अंक 643 थे। समर्थ ने IBPS SO की परीक्षा में कुल अंकों का कितना प्रतिशत प्राप्त किया?

A. 66.23%   B. 68.34%   C. 72.45%   D. 76.67%   E. इनमें से कोई नहीं।

18. A, B और C का गति अनुपात 5: 4: 3 है। ये सभी एक ट्रैक पर एक साथ दौड़ना शुरू करते हैं और दौड़ पूरी होने पर अपनी संबंधित कलाई घड़ियों से मिलान करते हैं। C 20 मिनट में दौड़ पूरी करता है। जब B दौड़ खत्म करता है तो A की कलाई घड़ी 7:27 PM बजाती है। जब C दौड़ पूरी करता है तो उसकी घड़ी 7:30 PM बजाती और B की कलाई घड़ी 7:16 PM बजाती है। दौड़ की शुरुआत में A और B की कलाई घड़ी में समय के बीच अंतर क्या है?

A. 15 min   B. 16 min   C. 12 min   D. 6 min   E. इनमें से कोई नहीं।

19. A का मासिक वेतन B के मासिक वेतन से 20% अधिक है यदि A की बचत 24000 रु है जो A के मासिक वेतन का 40% है, तो B का मासिक वेतन ज्ञात करें।

A. Rs.. 54000   B. Rs. 66000   C. Rs.. 60000   D. Rs. 50000   E. Rs. 55000

20. A और B की मासिक आय क्रमशः 42600 रु और 48500 रु है। एक व्यक्ति अपनी कुल आय का 29%, 17% और 42% क्रमशः भोजन, किराए और अन्य खर्चों में खर्च करता है जबकि B उसकी कुल आय का 24%, 19% और 38% क्रमशः भोजन, किराया और अन्य खर्चों में खर्च करता है और बाकी की राशि दोनों के द्वारा बचाया जाता है। A और B द्वारा बचाई गई राशि के बीच का अंतर ज्ञात कीजिए।

A. Rs. 4103   B. Rs. 4208   C. Rs. 4433   D. Rs. 4083   E. Rs. 4354

21. चार दोस्त A, B, C और D रात के खाने के लिए गए। A ने 40% बिल का भुगतान किया। शेष बिल में से, B ने 50% का भुगतान किया। शेष बिल में से, C ने 60% का भुगतान किया। D ने शेष रु 924 का भुगतान किया। A और C द्वारा भुगतान की गई राशि के बीच अंतर (रु में) क्या है?

A. 770   B. 1694   C. 2310   D. 2156   E. 7700

22. राजीव अपने मासिक वेतन का 40% किराए पर खर्च करता हैं; वह शेष का 30% खरीदारी पर और शेष का 200/7% बिजली पर खर्च करता है। वह शेष राशि का 50% बचाता है जो कि पिछले महीने की बचत के साथ मिलकर बनता है जो पिछले महीने के वेतन की राशि का 10% 1500 रु था। राजीव का मासिक वेतन क्या है?

A. Rs. 6000　　　B. Rs. 5000　　　C. Rs. 8000　　　D. Rs. 6800　　　E. इनमें से कोई नहीं।

23. राजीव अमन और किशोर को दो अंकों की संख्या बताता है। फिर वह अमन को दी गई संख्या का 166.67% और किशोर को दी गई संख्या का 66.67% की गणना करने के लिए कहता है। अमन का अंतिम परिणाम किशोर की तुलना में 3 अधिक है। यदि गलती से किशोर ने उल्टे क्रम में मूल संख्या लिख दी थी, तो राजीव द्वारा दी गई संख्या क्या थी?

A. 36　　　B. 54　　　C. 39　　　D. 27　　　E. इनमें से कोई नहीं।

24. समय 4 : 26 और 6 : 50 के बीच एक दीवार घड़ी में घंटे की सुई द्वारा कवर किया गया क्षेत्रफल 15 घंटे में कवर किये गए क्षेत्रफल का कितना प्रतिशत है?

A. 15%　　　B. 14%　　　C. 12%　　　D. 16%　　　E. इनमें से कोई नहीं।

25. A, B और C, तीन संख्याएँ A > B > C हैं। A और B के बीच अंतर और B और C के बीच का अंतर का औसत 10 के बराबर है। B का मान B और C के बीच के अंतर का 1500% है और A और B के बीच के अंतर से 400% अधिक है। B का मान क्या है?

A. 65　　　B. 70　　　C. 75　　　D. 95　　　E. इनमें से कोई नहीं।

26. दो दोस्तों A और B के पास 4: 3 के अनुपात में कुछ धन हैं। यदि A के पास धन 17.5% कम हो जाता है और B के पास 45 रुपये की वृद्धि हो जाती है, तो दोनों के पास धन बराबर हो जाता है। शुरू में उनके पास धन का औसत क्या है?

A. Rs. 525　　　B. Rs. 515　　　C. Rs. 435　　　D. Rs. 460　　　E. इनमें से कोई नहीं।

27. निखिल को पांच विषय गणित, विज्ञान, अंग्रेजी, हिंदी और संस्कृत के अंक मिले। हिंदी के अंक गणित और विज्ञान में औसत अंक के बराबर है और अंग्रेजी के अंक हिंदी के अंक का 80% है। अंग्रेजी के अंक 200 है और औसत अंक 240 है। संस्कृत के अंक क्या हैं?

A. 240　　　B. 250　　　C. 270　　　D. 265　　　E. इनमें से कोई नहीं।

28. दो उम्मीदवारों के बीच एक गांव के चुनाव में, विजेता ने कुल वोटों का 70% हासिल किया और 12000 मतों के बहुमत से जीता। हारने वाले उम्मीदवार को कितने वोट मिले?

A. 4500　　　B. 9000　　　C. 7000　　　D. 6500　　　E. इनमें से कोई नहीं।

29. एक गाँव की जनसंख्या पहले वर्ष में 20% बढ़ी, दूसरे वर्ष में 15% कम हुई और तीसरे वर्ष में 10% बढ़ी। तीन साल के बाद गांव की आबादी 106590 है। गांव की शुरुआती जनसंख्या ज्ञात करें।

A. 95000　　　B. 80000　　　C. 75000　　　D. 60000　　　E. इनमें से कोई नहीं।

30. एक शहर में पुरुष और महिलाओं का अनुपात 3:2 है। पुरुषों मे से 25% बच्चे है और शेष वयस्क । यदि वयस्क पुरुषो की जनसँख्या 8100 है तो शहर की कुल जनसँख्या बताइए।

A. 22000   B. 24000   C. 20000   D. 18000   E. इनमें से कोई नहीं।

31. 40 छात्रों और 10 शिक्षकों की कक्षा में, प्रत्येक छात्र को उपहार मिले जो छात्रों की कुल संख्या का 20% थे और प्रत्येक शिक्षक को उपहार मिले जो छात्रों की कुल संख्या का 15% थे। कुल कितने उपहार थे?

A. 360   B. 420   C. 300   D. 380   E. इनमें से कोई नहीं।

32. एक परीक्षा में तरंग को 25% अंक मिले और वह 64 अंकों से फेल हो गया। अगर उसे 40% अंक मिले होते तो वह पास के अंकों से 32 अंक अधिक हासिल करता। पास के अंकों का प्रतिशत ज्ञात करें।

A. 224 marks   B. 250 marks   C. 150 marks   D. 295 marks   E. इनमें से कोई नहीं।

33. एक कंपनी में 20 कर्मचारी हैं, जिनमें से 'x' कर्मचारी क्लर्क हैं और बाकी अधिकारी हैं। एक कंपनी में सभी कर्मचारियों का औसत वेतन 5300 रुपये है। कंपनी में एक अधिकारी का वेतन कंपनी में एक क्लर्क के वेतन से 275% अधिक है। सभी क्लर्कों का कुल वेतन ज्ञात करें यदि कंपनी में अधिकारियों की संख्या कंपनी में क्लर्कों की संख्या से 50% अधिक है।

A. Rs. 8000   B. Rs. 12000   C. Rs. 16000   D. Rs. 20000   E. इनमें से कोई नहीं।

34. राहुल को अपनी बहन अमायरा की तुलना में 20% अधिक पॉकेट मनी मिली और अमायरा को अपनी बहन पिहू से 20% अधिक। यदि इन सभी को कुल मिलाकर प्राप्त धन 5824 रु है। पिहू को कितनी पॉकेट मनी मिली।

A. Rs. 1800   B. Rs. 1550   C. Rs. 1750   D. Rs. 1600   E. Rs. 1200

35. इनकम टैक्स के दो स्लैब हैं, 3 लाख तक की आय पर 9% टैक्स और 3 लाख से ऊपर की आय के लिए 12.5% टैक्स। अरुण ने कुछ आय को छिपाकर, 9% कर स्लैब में आने के लिए टैक्स से बचने की कोशिश की। अरुण द्वारा छिपाई गयी राशि मूल कर योग्य आय का 9/44 है। यदि अरुण ने कर के रूप में 25,200, रु चुकाए, कर की मूल राशि क्या है जो उसे चुकानी थी?

A. Rs. 35660   B. Rs. 44000   C. Rs. 31680   D. Rs. 40000   E. इनमें से कोई नहीं।

36. श्री सुनील के मासिक खर्च हैं: भोजन पर 25%, कपड़ों पर 20% और बच्चों की शिक्षा पर शेष का 10%। यदि वह शेष को दो योजनाओं x और y में क्रमशः 5: 4 के अनुपात में निवेश करता है। बच्चों की शिक्षा पर व्यय, योजना x में उनके निवेश का कितना प्रतिशत है?

A. 25%   B. 20%   C. 28%   D. 30%   E. 22%

37. किराए में 30% वेतन खर्च करने के बाद, बिजली में शेष का 25% और खरीदारी पर शेष का 28.56%, गौरव 2 वर्षों के लिए शेष राशि को 20% प्रतिवर्ष के चक्रवृद्धि ब्याज पर रखता है। प्राप्त ब्याज 6600 रुपये है। गौरव का मासिक वेतन क्या है?

A. Rs. 42000   B. Rs. 48000   C. Rs. 45000   D. Rs. 40000   E. इनमें से कोई नहीं।

38. अमन के पास किराए, बिजली और खरीदारी पर क्रमशः 25%, 15% और 30% मासिक वेतन खर्च करने के बाद कुछ पैसा बचा है। अमन के पास बचा हुआ पैसा 16.67% बढ़ जाता है जब कोई दोस्त उसे 4500 रु देता है। अमन का मासिक वेतन क्या है?

A. Rs 95000   B. Rs. 82000   C. Rs. 90000   D. Rs. 85000   E. इनमें से कोई नहीं।

39. एक कॉलोनी में, 3 सेक्टर A, B और C है, सभी 3 सेक्टर की महिला जनसंख्या क्रमशः 2: 3, 4 के अनुपात में है। सेक्टर A में, 55% महिलाएं काम कर रही हैं, सेक्टर B में, 25% महिलाएं काम कर रही हैं और सेक्टर C में, 50% महिलाएं काम कर रही हैं। कॉलोनी में काम न करने वाली महिला का प्रतिशत ज्ञात करें।

A. 50.46%   B. 62.03%   C. 57.22%   D. 54.67%   E. इनमें से कोई नहीं।

40. 2014 में अभिमन्यु का मासिक वेतन 32000 रुपये था। उनके अच्छे प्रदर्शन के कारण, पिछले वर्ष की तुलना में वर्ष 2015 और 2016 में उनके मासिक वेतन में क्रमशः 20% और 10% की वृद्धि हुई। इसके अलावा, यदि वेतन एक महीने में 40000 रुपये के पार हो जाता है, तो कर के रूप में 5% कटौती करने का प्रावधान था। वर्ष 2016 में कर चुकाने के बाद अभिमन्यु का मासिक वेतन ज्ञात करें।

A. Rs. 40128   B. Rs. 41256   C. Rs. 39566   D. Rs. 39976   E. इनमें से कोई नहीं।

41. रमन ट्यूशन फीस पर अपने पिता की आय का 20%, कमरे के किराए पर 30% और शेष का आधा भोजन पर खर्च करता है। वह दवा पर ___ खर्च करता है। वह 1750 रुपये बचाता है, जो कि ट्यूशन फीस, कमरे के किराए और भोजन पर खर्च करने के बाद शेष राशि का 35% है।

A. Rs. 3254   B. Rs.3256   C. Rs. 3255   D. Rs.3250   E. Rs. 3234

42. एक स्कूल में लड़कों की संख्या लड़कियों की तुलना में 1500 अधिक है। इंटर स्कूल चैम्पियनशिप के लिए चयनित लड़कियों की कुल संख्या लड़कों की तुलना में 195 अधिक है। यदि चैम्पियनशिप में चुने गए लड़कों और लड़कियों की संख्या क्रमशः 13% और 18% है, तो उन लड़कों की संख्या और उन लड़कियों की संख्या के बीच अंतर खोजें, जो चयनित नहीं हुई हैं।

A. 1244   B.1695   C.2358   D.1879   E. इनमें से कोई नहीं।

43. एक व्यक्ति अपने वेतन का x% किराये में देता है, 15% बिजली में, (2x + 4)% खरीदारी में और बाकी उसकी बचत है। उसकी बचत किराये पर खर्च से 140% अधिक है। x का मान क्या है?

A. 15   B. 12   C. 16   D. 9   E. 18

44. एक व्यक्ति अपने वेतन का 20% किराए पर, 10% खरीदारी पर खर्च करता है, 30% बचाता है और शेष वह दो साल के लिए 12.5% प्रतिवर्ष की दर से चक्रवृद्धि ब्याज पर रखता है। यदि दो वर्षों के बाद प्राप्त ब्याज 6800 रुपये है, तो खरीदारी पर खर्च की गई राशि क्या थी?

A. Rs. 6200   B. Rs. 5800   C. Rs. 7200   D. Rs. 6400   E. इनमें से कोई नहीं।

45. A, C, D और E के अधिकतम अंक पेपर B के अधिकतम अंक के क्रमश: 50%, 75%, 60% और 125% हैं। A, B, C, D और E में प्राप्त अंक 6: 14: 12: 9: 21 के अनुपात में है। A और B का कुल प्रतिशत अंक 60% है। सभी पेपरों के कुल प्रतिशत अंक क्या है?

A. 70.65%   B. 64.2%   C. 62.58%   D. 68.05%   E. 58.45%

46. एक आदमी 40% वेतन किराए पर खर्च करता है, शेष वेतन से 30% और 40% क्रमशः बिजली और खरीदारी पर खर्च करता है, और शेष 14400 रुपये उसकी बचत है। किराए पर खर्च की गई राशि क्या है?

A.Rs. 48000   B.Rs. 32000   C.Rs. 36000   D.Rs. 28000   E. इनमें से कोई नहीं।

47. A और B एक चुनाव में दो उम्मीदवार हैं और एक मतदाता A या B के लिए वोट कर सकता है। उम्मीदवार A को उम्मीदवार B के वोट के 66.67% वोट मिले। यदि केवल 90% पात्र मतदाताओं ने अपना वोट डाला और B को A की तुलना में 64800 अधिक वोट मिले, तो कितने पात्र मतदाता थे?

A. 326000   B. 360000   C. 420000   D. 540000   E. 320000

48. कक्षा Q में कक्षा P की तुलना में 100% अधिक छात्र हैं। कक्षा P में लड़कियों की संख्या कक्षा Q के लड़कों की संख्या के बराबर है। लड़कियों का प्रतिशत दोनों कक्षाओं में समान है। दोनों कक्षाओं को मिलाकर कितने प्रतिशत छात्र समूह में लड़के है?

A. 33.33%   B. 66.66%   C. 40%   D. 30%   E. इनमें से कोई नहीं।

49. राजू ने क्रमशः 3 : 4 : 1 के अनुपात में कुल 560 किलोग्राम गेहूं, चावल और दालें खरीदीं। 60% गेहूं, 45% चावल और 20% दालें बेची जाती हैं, शेष वस्तुओं का कुल वजन चावल और दालों के शुरुआती कुल वजन का कितना प्रतिशत है?

A. 84%   B. 79%   C. 86%   D. 82%   E. इनमें से कोई नहीं।

50. जीवाणु वृद्धि, एक प्रयोग में, अवलोकन के पहले वर्ष में 27% और बाद के वर्ष में 20% तक बढ़ जाती है, फिर पहले वर्ष के अंत में और दूसरे वर्ष के अंत में जीवाणु की संख्या का अनुपात क्या है?

A. 5 : 6   B. 6 : 5   C. 2 : 3   D. 3 : 2   E. इनमें से कोई नहीं।

CORRECT ANSWERS:

1	D	11	E	21	B	31	D	41	D
2	D	12	C	22	A	32	A	42	B
3	D	13	A	23	C	33	C	43	A
4	B	14	C	24	D	34	D	44	D
5	A	15	C	25	C	35	B	45	D
6	A	16	D	26	A	36	B	46	B
7	B	17	C	27	B	37	D	47	B
8	A	18	B	28	B	38	C	48	A
9	A	19	D	29	A	39	C	49	A
10	E	20	A	30	D	40	A	50	A

Explanations:

1. Let the salary of the man be 1000k

Let the children be X, Y and Z

	X	Y	Z	Total
Money received	100k	180k	220k	500k
Spent	40% = 40k	60% = 108k	25% = 55k	
Money left	60k	72k	165k	297k

Money left with the man = 500k
Difference = 500k – 297k = 203k
203k = 1015
k = 5
Salary of man = 1000k = Rs. 5000

Hence, option D is correct.

2. **Smart Approach:-**

Total savings of A and B = 50% of their total income
So, Total expenditure of A and B also will be equal to 50% of their total income
Average expenditure = Rs. 16000
So, Total expenditure = Rs. 32000 = 50% of their total income
So, Total income of A and B = Rs. (32000 * 2) = Rs. 64000
Hence option D is correct.

Alternate Method:-
Salary of A is 37.5% of the total salary of A and B.
Let the total salary of A and B = 16k
The Salary of A = (3/8) × 16k = 6k → Salary of B = 10k
B saves 60% of his salary and total savings of A and B is 50% of their total income.
Savings of B = 60% (10k) = 6k → Exp (B) = 4k
Total savings of A and B = 50% (16k) = 8k → savings (A) = 8k – 6k = 2k → Exp (A) = 2k
Their average expenditure is Rs 16000
Average expenditure of A and B = 4k = 16000 → k = 4000

	Salary	Expenditure	Savings
A	6k	4k	2k
B	10k	4k	6k

Total salary of A and B = 16k = Rs 64000
Hence, option D is correct.

3. Let the number of students in class = 80k

Students pass in both the English and Hindi = 25% (80k) = 20k
37.5% of the students failed in both the subjects = 37.5% (80k) = 30k
60% students failed in Hindi = 60% (80k) = 48k
Students who failed in Hindi & passed in English = 48k – 30k = 18k

Students who failed in English & Passed in Hindi = 80k – (20k + 48k) = 12k
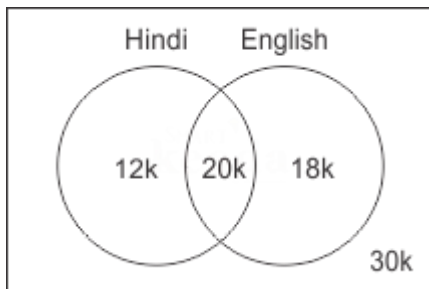
The difference between the students who passed in English and those who passed in Hindi is 15

$6k = 15 \rightarrow k = \dfrac{5}{2}$

Total strength of class = 80k = $80 \times \dfrac{5}{2}$ = 200

Hence, option D is correct.

4. Let total students = N

students in hostel A = $33\dfrac{1}{3}$ % of N = $\dfrac{N}{3}$

students in hostel B = $N - \dfrac{100N}{3} = \dfrac{2N}{3}$

According to question-

$\Rightarrow \dfrac{N}{3} + 20 = \dfrac{N}{2}$

$\Rightarrow 20 = \dfrac{N}{6}$

$\Rightarrow N = 120$

Now, if 20 students from hostel A are shifted to hostel B-

$\Rightarrow \dfrac{\dfrac{N}{3} - 20}{N} \times 100 = \dfrac{20}{120} \times 100 = 16.67\%$

Hence, option B is correct.

5. ABD scored his runs only in boundaries

Let the number of fours be X and numbers of sixes be Y

Total balls played =16

X + Y = 16 I

Total runs scores =86

4X + 6Y = 86.......II

Solving I AND II we get

X = 5 and Y = 11

Runs scored in boundaries = 20

% of runs scored in boundaries = $\dfrac{20}{86}$ × 100 = 23.25%

Hence, option A is correct.

6. Let the price of mobile be Rs. 100X

Price of mobile after 20% discount = Rs. 80X

Price after further 10% discount = Rs. 72X
72X = 36000
X = 500

Cost price of mobile = 100 × 500 = 50000

Hence, option A is correct.

7. Let the number of female be 3x and male be 2x

∵ Number of employees which work below level 2
= (75% × 3x) + (80% × 2x) = $\dfrac{77x}{20}$

Reqd. % = $\dfrac{(77x/20)}{5x}$ × 100 = 77%

Hence, option B is correct.
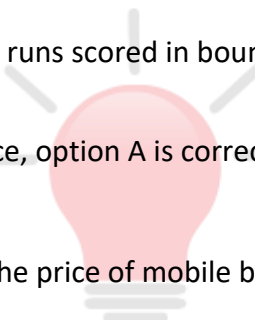
8. The original weight to be bought and sold is 1000gm but he bought x% more and sold only 800gm.

So he bought 1000 × (1+ x/100) gms and sells only 800gms for every 1000 gms

He further sells at 10% above the cost price, so we can say he sells only 800 × (10/11) gms instead of 800gms

So he sells only 800 × (10/11) gms for every 1000 × (1 + x/100) gms bought which earns him a profit of 65%.

800 × (10/11) (165/100) = 1000(1 + x/100)
We get, x = 20%
Hence, option A is correct.

9. Passing marks for class X = (1225 + 125) = 1350

Passing marks of class IX = $\frac{2}{3}$ * 1350 = 900

Hence, option A is correct.

10.

Ratio of the quantity of novels sold = $\frac{40\%}{60\%}$ = 2 : 3

40% novels are sold at 3/4th of the cost price.
So, Loss on 40% of novels = 25%
= 25% (C.P is taken as Rs. 100)
Let us take profit percentage of 60% novels as x%
By Mixture and Allegation,

Profit of 40% of novels   Profit of 60% novels
            − 25%   x%
                   \   /
                  20%
                  /   \
        (x – 20)   20 – (− 25) = 45

Ratio = 2 : 3
So,
$\frac{x - 20}{45} = \frac{2}{3}$

x = 50%

Hence, option E is correct.

11. Let the total money with Mr Jitender be Rs. 100x

Amount spend on note book = $\dfrac{100x}{5}$ = Rs. 20x

Remaining amount = 80x

Amount spend on marker = $\dfrac{80x}{4}$ = Rs. 20x

20x = 12

100x = 60

Amount he lost = Rs. (100x - 20x - 20x) = Rs. 60x = Rs. 36

Hence, option E is correct.

12. Let, total population of village = 100X

Died due to Diabetes = 20X

Dies due to Lung Cancer = 2000

Deaths due to Diabetes were 1200 more due to Lung Cancer

20X – 2000 = 1200

20X = 3200

X = 160

Population of Village = 100 × 160 = 16,000

Total Number of Smokers = 3 × 2000 = 6000

Reqd. % = $\dfrac{6000}{16000}$ × 100 = 37.5 %

Hence, option C is correct.

13. Let his yearly salary was Rs. y, then

10% of y = 0.10y was spent on house rent

14% of y = 0.14y was spent on car

12% of y = 0.12y was spent on school

Total = (0.1y + 0.14y + 0.12y) = 0.36y

Remaining amount = y – 0.36y = 0.64y

Now, 15% of 0.64y = 0.096y was spent on groceries

10% of 0.64y = 0.064y was spent on vacation

Total on these two things = (0.096y + 0.064y) = 0.16y

Total expenditure on all the five items = (0.36y + 0.16y) = 0.52y

Savings = y – 0.52y = 0.48y

So, we have

0.48y = 518400

y = 1080000

Monthly salary = Rs. $\dfrac{1080000}{12}$ = Rs. 90000

Hence, option A is correct.

14. Let the population 2 years ago was P. Then, Jamnagar has population after one year

$= P + R\%$ of $P = P(1 + R\%) = P\left(1 + \dfrac{R}{100}\right)$

After 2 years, the Jamnagar's population

$= P\left(1 + \dfrac{R}{100}\right) + R\%$ of $P\left(1 + \dfrac{R}{100}\right) = P\left(1 + \dfrac{R}{100}\right)(1 + R\%)$

$= P\left(1 + \dfrac{R}{100}\right) + \left(1 + \dfrac{R}{100}\right) = P\left(1 + \dfrac{R}{100}\right)^2$

Similarly, population of Ramnagar after 2 years would be

$= P\left(1 - \dfrac{R}{100}\right)^2$

Difference between the population

$= P\left(1 + \dfrac{R}{100}\right)^2 - P\left(1 - \dfrac{R}{100}\right)^2 = P\left[\left(1 + \dfrac{R}{100}\right)^2 - P\left(1 - \dfrac{R}{100}\right)^2\right]$

$= P\left[1 + \left(\dfrac{R}{100}\right)^2 + \dfrac{2R}{100} - 1 - \left(\dfrac{R}{100}\right)^2 + \dfrac{2R}{100}\right]$

$= P\left[\dfrac{2R}{100} + \dfrac{2R}{100}\right] = \dfrac{4PR}{100}$

The difference between the population is 1000R, thus

$\dfrac{4PR}{100} = 1000R$

P = 25000

Hence, option C is correct.

15. Let the bank deposits of Raman be Rs. P.
The bank deposits that Raman has is 100% more than that of Aman, means if Aman's deposits is Rs. y, then

y + 100% of y = P
P = 2y

Aman's deposits, $y = \dfrac{P}{2}$ = Rs. 0.5P

The bank deposits that Raman has is 75% more than that of Jatin, means if Jatin's deposits is Rs. z, then
z + 75% of z = 1.75z = P

Jatin's deposits, $z = \dfrac{P}{1.75}$ = Rs. $\dfrac{4P}{7}$

Total of Aman's and Jatin's deposits
$= 0.5P + \dfrac{4P}{7} = \dfrac{7.5P}{7}$

Raman's deposits as a percentage of Aman's and Jatin's deposits together
$= \dfrac{P}{(7.5P/7)} \times 100 = \dfrac{700}{7.5} = \dfrac{280}{3} = 93.33\%$

Hence, option C is correct.

16. Let total 100 students be there, then
40% students are in or above high school = 40
Rest are in or below junior high school = 100 – 40 = 60
In high school or above, ratio of boys to girls is 7 : 3, so
Boys $= \dfrac{7}{7+3} \times 40 = 28$

Girls $= \dfrac{3}{7+3} \times 40 = 12$

In junior high school or below, ratio of boys to girls is 7 : 5, so
Boys $= \dfrac{7}{7+5} \times 60 = 35$

Girls $= \dfrac{5}{7+5} \times 60 = 25$

Ratio of boys in high school or above to junior high school or below = 28 : 35 = 4 : 5.
Hence, option D is correct.

17. Let the total marks were 'm', then

Rahul's marks = 92% of m = 0.92m

Nishant's marks = 56% of m = 0.56m

Samarth's marks = 634

Total = 0.92 + 0.56m + 634 = 1.48m + 634

Average = $\dfrac{(1.48m + 634)}{3}$ = 643

1.48m = 643 × 3 − 634 = 1295

m = $\dfrac{1295}{1.48}$ = 875

Percentage of marks Samarth got

= $\dfrac{634}{875}$ × 100 = 72.45%

Hence, option C is correct.

18. As the distance is same for all, the ratio of time taken by A: B : C = 1/5 : 1/4 : 1/3 = 12 : 15 : 20
C takes 20min to finish the race → So, A takes 12min and B takes 15min.
When B finishes the race the wrist watch of A shows 7:27PM.

B finishes the race in 15min

So time in wrist watch of A at start of race = 7:27 − 0:15 = 7:12 PM

When C finishes the race his watch shows 7:30PM and wrist watch of B shows 7:16PM

C completes the race in 20min

So time in wrist watch of B at the start of the race = 7:16 − 0:20 = 6:56PM

Time difference between wrist watch of A and B at the start of the race = 7:12 − 6:56 = 16min
Hence, option B is correct.

19. Let the monthly salary of A be Rs. x

Savings of A = 40% of x

So, 24000 = 0.4x

$$x = \frac{24000}{0.4}$$

So, x = Rs.60000

So, monthly salary of B = $\frac{60000}{1.2}$ = Rs. 50000

Hence, option D is correct.

20. Amount saved by A = {100 − (29 + 17 + 42) }% of 42600 = Rs. 5112

Amount saved by B = {100 − (24 + 19 + 38) }% of 48500 = Rs. 9215

Required difference = Rs. (9215 − 5112)= Rs.4103

Hence, option A is correct.

21. Let the total bill be Rs. x

∴ A paid Rs. 0.4x

Since B paid 50% of the balance, B paid Rs. 0.5(0.6x) = Rs. 0.3x

Bill left now = Rs. (x − 0.4x − 0.3x) = Rs. 0.3x

Since C paid 60% of this, D would have the remaining 40% of it.

∴ C paid 0.6(0.3x) = Rs. 0.18x and D paid Rs. 0.12x

This corresponds to Rs. 924

∴ 0.12x = 924

∴ Difference in amounts paid by A and C = Rs. (0.4x − 0.18x) = Rs. 0.22x

∴ Required difference = (924 × 0.22)/0.12 = Rs. 1,694
Hence, option B is correct.

22. Let Rajeev's monthly salary = 100 k

Amount left after rent = 100 k − 40% (100 k) = 60 k

Amount left after Shopping = 60 k − 30% (60k) = 70% (60 k) = 42 k

Amount left after Electricity expenditure

$$= 42\ k - \frac{200}{7}\ \%\ (42\ k) = 30\ k$$

Savings = half of 30 k = 15 k

Savings from last month = 10% (salary) = 10 k

Total savings = 25 k out of 200 k

25 k = 1500

K = 60

Monthly salary = 60 k = Rs 6000

Hence, option A is correct.
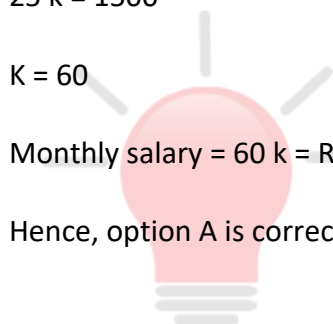
23. Let the number given by Rajeev be "ab", so it can be written as 10a + b
The reverse number written by Kishor will be "ba", which can be written as 10b + a
Calculation done by Aman
166% of original number = $\frac{5}{3}$ × (10a + b)

Calculation done by Kishor
66.67% of original number = $\frac{2}{3}$ × (10b + a)

Difference = $\frac{5}{3}$ × (10a + b) − $\frac{2}{3}$ × (10b + a) = 3

Solving we get,
16a − 5b = 3 → b = $\frac{3a + (a - 3)}{5}$

Only one value satisfies the relation, a = 3 and b = 9
So, the number is 39
Hence, option C is correct.

24. Minutes from 4 : 26 to 6 : 50 = 144

Area covered will be in the same proportion as the angle covered.

Angle covered by hour hand in 60 min = 30°

Angle covered in 144 min = $\dfrac{30° \times 144}{60°}$ = 72°

Angle covered by hour hand in 12 hour = 360°, so the angle covered in 15 hours
= $\dfrac{360°}{12}$ × 15 = 450°

Reqd. % = $\dfrac{72}{450}$ × 100 = 16%

Hence, option D is correct.

Alternate Solution:-

Total time between 4 :26 and 6 :50 = 2 hrs 24 minutes = 144 minutes

Total time in 15 hrs = 900 minutes

Required % = (144 / 900) X 100 = 16%

Hence, option D is correct.

25. Average of the difference between A and B and the difference between B and C is equal to 10

$\dfrac{A - B + B - C}{2}$ = 10 → A – C = 20 ------eq (i)

B = 1500 % (B – C)

B = 15 (B – C) → 14B = 15C
B = 500 % (A – B)

B = 5 (A – B) → 6B = 5A

Putting value of C and A in eq (i)

$\dfrac{6B}{5} - \dfrac{14B}{15}$ = 20 → B = 75

Hence, option C is correct.

26. Ratio of money of A : B = 4 : 3

Let money with A and B be 4k and 3k

Money with A decreases by 17.5% so money with a becomes 82.5%

A' = 82.5% × 4k

B' = 3 k + 45

82.5% × 4k = 3k + 45 → k = 150

Money with A = 4 × 150 = 600 and that with B = 3 × 150 = 450

Reqd. average = $\dfrac{600 + 450}{2}$ = Rs. 525

Hence, option A is correct.

27. Maths – M, Science – Sc, English – E, Hindi – H, Sanskrit – Sa

E = 200

E = 80% (H) → H = 250

H = $\dfrac{M + Sc}{2}$ → M + Sc = 500

$\dfrac{M + Sc + H + E + Sa}{5}$ = 240

→ 500 + 200 + 250 + Sa = 1200 → Sa = 250

Hence, option B is correct.

28. Total votes cast = 100%
% of votes secured by winner = 70%
% of votes secured by loser = 100 – 70 = 30%
Majority = Votes secured by winner – Votes secured by loser = 70% – 30% = 40%

Votes secured by losing candidate = $\dfrac{30}{40}$ × 12000 = 9000

Hence, option B is correct.

29. Let initial population of the village = y

According to the question

$$y \times \frac{120}{100} \times \frac{85}{100} \times \frac{110}{100} = 106590$$

$$\Rightarrow y = 106590 \times \frac{100}{110} \times \frac{100}{85} \times \frac{100}{120}$$

$$\Rightarrow y = 95000$$

Hence, option (A) is correct.

30. Let the total population of the town= y

$$\% \text{ of males} = \frac{3}{5} \times 100\% = 60\%$$

$$\% \text{ of adult males} = \frac{100 - 25}{100} \times 60\% = 45\%$$

$$\frac{45}{100} \times y = 8100$$

$$\Rightarrow y = 8100 \times \frac{100}{45}$$

$$\Rightarrow y = 18000$$

Hence, option (D) is correct.

31. Gifts received by each student = 20% of total number of students i.e.

$$\frac{20}{100} \times 40 = 8$$

Gifts received by each teacher = 15% of total number of students i.e.
$$\frac{15}{100} \times 40 = 6$$

Total Gifts = 40 × 8 + 6 × 10 = 380

Hence, option (D) is correct.

32. Let the total marks = x

According to the question,

x × 25% + 64 = x × 40% − 32

x × 40% - x × 25% = 64 + 32

x × 15% = 96

x = 640

Passing marks = 640 × 25% + 64

= 160 + 64 = 224 marks

Hence, option A is correct.

33. Number of officers in the company = 1.5x = 20 – x

2.5x = 20; x = 8

So, there are 8 clerks and 12 officers in the company

Let the salary of a clerk in the company = Rs. y

So, the salary of an officer in the company = Rs. 3.75 y

According to the question,

8y + 3.75y × 12 = 20 × 5300

8y + 45y = 106000

53y = 106000

y = 2000

So, the salary of all the clerks in the company together = 8 × 2000 = Rs. 16000

Hence, option C is correct.

Join us

34. Let, the pocket money Pihu got be Rs. x

Then, the pocket money Amayra got = Rs. 1.2x

And, the pocket money Rahul got = Rs.1.2 × 1.2x = Rs.1.44x

According to the question,

x + 1.2x + 1.44x = 5824

3.64x = 5824

$x = \dfrac{5824}{3.64}$

x = Rs.1600

So, Pihu got Rs. 1600 as pocket money

Hence, option D is correct.

35. Tax paid = 25200 (9% of the taxable income)

Shown income = $\dfrac{25200 \times 100}{9}$ = 280000

Amount hid = $\dfrac{9}{44}$ of original income.

Shown income = $\dfrac{35}{44}$ × original taxable income

Original Taxable income = $\dfrac{44}{35}$ × 280000 = 352000

Tax = 12.5% × 352000 = Rs. 44000

Hence, option B is correct.

36. Let Sunil's monthly expenses be 100x

His expenditure on food = 25% of 100x = 25x

His expenditure on clothing = 20% of 100x = 20x

Remaining = 100x – 25x – 20x = 55x

Expenditure on children education = 10% of 55x = 5.5x

Remaining = 55x – 5.5x = 49.5x

Investment in the scheme X = $\dfrac{5 \times 49.5x}{9}$ = 27.5x

Reqd. % = $\dfrac{5.5 \times (100)}{27.5x}$ = 20%

Hence, option B is correct.

37. Let the amount put at compound interest be 100K

The interest will be $100K \left(1 + \dfrac{20}{100}\right)^2 - 100K = 44k$

44k = 6600 → 100k = 15000

Let the original salary be P

After spending 30% on rent, 25% of the remaining on electricity and 28.56% (2/7) of remaining on shopping we are left with 15000

$P \times \dfrac{70}{100} \times \dfrac{75}{100} \times \dfrac{5}{7}$ = 15000

P = Rs 40000

Hence, option D is correct.

38. After spending 25%, 15% and 30% of salary on rent, electricity and shopping the amount left with Aman is = 100 – (25 + 15 + 30) = 30% of salary as savings

Money increases by 16.67% (1/6)

Increase in remaining money

$= \dfrac{1}{6} \times 30\%$ (salary) = 5% (salary) = Rs. 4500

Salary = 20 × 4500 = Rs. 90000

Hence, option C is correct.

39. Let the female population of A, B and C be 2x, 3x and 4x respectively

Working female in sector A $= \dfrac{55}{100} \times 2x = 1.1x$

Working female in sector B $= \dfrac{25}{100} \times 3x = 0.75x$

Working female in sector C $= \dfrac{50}{100} \times 4x = 2x$

Total working female = (1.1x + 0.75x + 2x) = 3.85x

Total female population = (2x + 3x + 4x) = 9x

Total non-working female = (9x – 3.85) = 5.15x

Reqd. % $= \dfrac{5.15x}{9x} \times 100 = 57.22\%$

Hence, option C is correct.

40. Monthly salary of Abhimanyu in 2014 = Rs. 32000
Monthly salary of Abhimanyu in 2015 = Rs. 32000 × 1.2 = Rs. 38400
Monthly salary of Abhimanyu in 2016 = Rs. 38400 × 1.1 = Rs. 42240

Since, his monthly salary crosses Rs. 40000

So, monthly salary of Abhimanyu in the year 2016 after deducting the tax = 0.95 × 42240 = Rs. 40128
Hence, option A is correct.

41. Let's the monthly income of Raman's dad be Rs. 100 m

Expenditure on tuition fees and room rent = 20 m + 30 m = Rs. 50 m

Remaining amount = 100 m – 50 m = Rs. 50 m

Food expenses is half of remaining = 1/2 of 50 m = Rs. 25 m

Total Expenditure = 50 m + 25 m = 75 m

Remaining income = 100 m – 75 m = 25 m

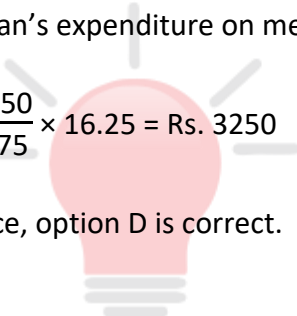Savings = 35% of remaining $\Rightarrow$ 35% of 25 m = 8.75 m

According to the question,

$\Rightarrow$ 8.75 m = 1750

Raman's expenditure on medicine = (100 m – 75 m – 8.75 m) = 16.25 m

$\Rightarrow \dfrac{1750}{8.75} \times 16.25$ = Rs. 3250

Hence, option D is correct.

42. Let, total number of girls = x

Then, total number of boys = x + 1500

So, 18% of x – 13% of (x + 1500) = 195

$\dfrac{9x}{50} - \dfrac{13x}{100} - 195 = 195$

$\dfrac{18x - 13x}{100} = 390$

x = 7800

Total number of boys = (7800 + 1500) = 9300
Total number of girls = 7800

Required difference = (87% of 9300 – 82% of 7800) = (8091 – 6396) = 1695

So option B is the correct answer.

43. Let the salary be 100k

Rent = x% (100k) = xk

Savings = (100 − x − 15 − 2x − 4)% (100k) = (81 − 3x)k

(81 − 3x)k = (24/10) × xk

x = 15

Hence, option A is correct.

44. Let the amount put at CI = 64k

Interest = $64\left(1 + \dfrac{1}{8}\right)^2 - 64 = 17k$

40% of salary = Amount put at CI

$= \dfrac{64}{17} \times 6800 = 25600$

Spent on shopping = 10% of salary

$= \dfrac{25600}{4} = 6400$

Hence, option D is correct.

45. Let the maximum marks of B = 200k
So Max marks of A = 100k, C = 150k and D = 120k and E = 250k
Total max marks of all five = 820k
Score obtained in A, B, C, D and E is in the ratio 6 : 14 : 12 : 9 : 21
Let the score in A = 6z, B = 14z, C = 12z, D = 9z and 21z
Total obtained score of all five = 62z

Total percentage score in A and B = $\dfrac{20z}{300k} \times 100 = 60$

z = 9k

Aggregate percentage score of all papers = $\dfrac{62z}{820k} \times 100 = \dfrac{62 \times 9k}{820k} \times 100 = 68.05\%$

Hence, option D is correct.

46. Let the salary = 100k

Rent = 40k, remaining = 60k

Savings = (100 – 30 – 40)% 60k = 30%(60k) = 18k

Rent = 40k × $\dfrac{14400}{18k}$ = Rs. 32000

Hence, option B is correct.

47. Let the total eligible voters = 100k

Votes cast = 90k

Ratio of votes got, $\dfrac{A}{B} = \dfrac{2}{3}$

Difference between the votes of A and B = $\dfrac{1 \times 90k}{5}$ = 18 k

18k = 64800

So 100k = 360000

Hence, option B is correct.

.48. Let number of girls in class A = x
Let number of boys in class A = y
Total number of students = x + y

Proportion of girls = $\dfrac{x}{x + y}$

Number of boys in class B = x
Total number of students in class B = 2(x + y)

Proportion of girls = $1 - \dfrac{x}{2(x + y)}$

Percentage of boys in the overall student community = $\dfrac{x + y}{3} \times (x + y) \times 100$ = 33.33%

Hence, option A is correct.

49. Total weight = 560kg

Wheat : rice : pulses = 3 : 4 : 1

Wheat = 210 kg, rice = 280 kg, pulses = 70 kg

60% wheat, 45% rice and 20% pulses are finished

Remaining = 40% wheat, 55% rice and 80% pulses

Weight of remaining wheat = 84 kg, rice = 154 kg, pulses = 56 kg

Total weight of the remaining items = (84 + 154 + 56) kg = 294kg

Required % = $\dfrac{294}{280 + 70} \times 100 = 84\%$

Hence, option A is correct.

50. Let the number of bacteria in the beginning of experiment be 'x'.

At the end of 1st year,

Number of bacteria = x + (27% of x) = x + 0.27x = 1.27x

Then, by the end of 2nd year,

Number of bacteria = 1.27x + (20% of 1.27x) = 1.27x + 0.254x = 1.524x

Ratio of bacteria at the end of 1st year to 2nd year = 1.27x : 1.524x

= 1270 : 1524 = 635 : 762 = 5 : 6

Hence, option A is correct.

Smart Approach:-

As the ratio at the end of 1st year to the end of 2nd year is asked we can assume that the number of bacteria at end of 1st year is 100x

So the number of bacteria at the end of 2nd year = 120% of 100x = 120x

Required ratio = 100x : 120x = 5 : 6

Hence option A is correct.