

# 1A

## PREVIOUS IIFT QUESTION PAPER

IIFT 2010

Question Booklet Serial No.

ADMISSION TEST FOR PROGRAMME 2011-13

Time: 2 Hours

Marks: 100

ROLL NUMBER

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NAME (in Capital Letters)

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### INSTRUCTIONS

1. Write the **Question Booklet Serial Number** in the space provided in the **Answer Sheet**. **Question Booklet Serial Number** is given at the top of this page.
2. Write your **Roll No.** clearly in the space provided in both the **Question Booklet** and the **Answer Sheet**.
3. Mark your answers in the **Answer Sheet** only. The **Answer Sheet alone** will constitute the basis of evaluation.
4. All **rough work** must be done in the **Question Booklet** only.
5. Do not make any stray marks anywhere in the answer sheet.
6. Do not fold or wrinkle the answer sheet.
7. Use only **HB Pencil** to **mark the answers** in the answer sheet.
8. **All Questions have one correct answer. Every answer must be indicated clearly darkening one circle for each answer. If you wish to change an answer, erase completely the already darkened circle, then make a fresh mark. If you darken more than one circle your answer will be treated as wrong, as shown in the example below:**



9. There is **negative marking equivalent to 1/3<sup>rd</sup> of the mark** allotted to the specific question for wrong answer.
10. The candidates are advised to **read all options thoroughly**.
11. No clarification of any sort regarding the question paper is permitted.

**THE ENTIRE QUESTION PAPER IS DIVIDED INTO**  
**THE FOLLOWING SECTIONS**

SECTIONS		NO. OF QUESTIONS	MARKS PER QUESTION	TOTAL MARKS
(a)	(b)	(c)	(d)	(e) = (c) × (d)
Section - 1		30 (Questions 1 - 30)	1.0	30.00
Section - 2		35 (Questions 31 - 65)	1.0	35.00
Section - 3	Part-1	15 (Questions 66 - 80)	0.7	10.50
	Part-2	25 (Questions 81 - 105)	0.5	12.50
Section - 4		30 (Questions 106 - 135)	0.4	12.00
<b>Total</b>		<b>135</b>		<b>100.00</b>

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## Section I

1. Find the sum of the following series;

$$\frac{2}{1!} + \frac{3}{2!} + \frac{6}{3!} + \frac{11}{4!} + \frac{18}{5!} + \dots$$

- (1)  $3e - 1$                       (2)  $3(e - 1)$   
(3)  $3(e + 1)$                     (4)  $3e + 1$

2. How many positive integers 'n' can we form using the digits 3, 4, 4, 5, 6, 6, 7 if we want 'n' to exceed 6,000,000?

- (1) 320            (2) 360            (3) 540            (4) 720

3. A Techno company has 14 machines of equal efficiency in its factory. The annual manufacturing costs are Rs. 42,000 and establishment charges are Rs. 12,000. The annual output of the company is Rs. 70,000. The annual output and manufacturing costs are directly proportional to the no. of machines. The share holders get 12.5% profit, which is directly proportional to the annual output of the company. If 7.14% machines remain closed throughout the year, then the percentage decrease in the amount of profit of the share holders would be:

- (1) 12%                      (2) 12.5%  
(3) 13.0%                    (4) None of these

4. Sun Life Insurance Company issues standard, preferred, and ultra-preferred policies. Among the company's policy holders of a certain age, 50% are standard with a probability of 0.01 of dying in the next year, 30% are preferred with a probability 0.008 of dying in the next year, and 20% are ultra-preferred with a probability of 0.007 of dying in the next year. If a policy holder of that age dies in the next year, what is the probability of the deceased being a preferred policy holder?

- (1) 0.1591                    (2) 0.2727  
(3) 0.375                      (4) None of these

5. A metro train from Mehrauli to Gurgaon has capacity to board 900 people. The fare charged (in RS.) is defined by the function

$$f = \left(54 - \frac{x}{32}\right)^2$$

where 'x' is the number of the people per trip. How many people per trip will make the marginal revenue equal to zero?

- (1) 1728            (2) 576            (3) 484            (4) 364

6. If each  $\alpha, \beta, \gamma$  is a positive acute angle such that

$$\sin(\alpha + \beta - \gamma) = \frac{1}{\sqrt{2}}, \operatorname{cosec}(\beta + \gamma - \alpha) = \frac{2}{\sqrt{3}}$$

and  $\tan(\gamma + \alpha - \beta) = \frac{1}{\sqrt{3}}$ . What are the values

of  $\alpha, \beta, \gamma$ ?

(1)  $\left(37\frac{1}{2}, 52\frac{1}{2}, 45\right)$     (2)  $(37, 53, 45)$

(3)  $\left(45, 37\frac{1}{2}, 52\frac{1}{2}\right)$     (4)  $\left(34\frac{1}{2}, 55\frac{1}{2}, 45\right)$

7. Shyam, Gopal and Madhur are three partners in a business. Their capitals are respectively Rs 4000, Rs 8000 and Rs 6000. Shyam gets 20% of total profit for managing the business. The remaining profit is divided among the three in the ratio of their capitals. At the end of the year, the profit of Shyam is Rs 2200 less than the sum of the profit of Gopal and Madhur. How much profit, Madhur will get?

- (1) Rs.1600                      (2) Rs.2400  
(3) Rs.3000                      (4) Rs.5000

8. In how many ways can four letters of the word 'SERIES' be arranged?

- (1) 24            (2) 42            (3) 84            (4) 102

9. The area of a triangle is 6, two of its vertices are (1, 1) and (4, -1), the third vertex lies on  $y = x + 5$ . Find the third vertex.
-

- (1)  $\left(\frac{2}{5}, \frac{27}{5}\right)$       (2)  $\left(-\frac{3}{5}, \frac{22}{5}\right)$   
 (3)  $\left(\frac{3}{5}, \frac{28}{3}\right)$       (4) None of these

10. A small confectioner bought a certain number of pastries flavoured pineapple, mango and black-forest from the bakery, giving for each pastry as many rupees as there were pastry of that kind; altogether he bought 23 pastries and spent Rs.211; find the number of each kind of pastry that he bought, if mango pastry are cheaper than pineapple pastry and dearer than black-forest pastry.

- (1) (10, 9, 4)      (2) (11, 9, 3)  
 (3) (10, 8, 5)      (4) (11, 8, 4)

11. Find the root of the quadratic equation

$$bx^2 - 2ax + a = 0$$

- (1)  $\frac{\sqrt{b}}{\sqrt{b \pm \sqrt{a-b}}}$       (2)  $\frac{\sqrt{a}}{\sqrt{b \pm \sqrt{a-b}}}$   
 (3)  $\frac{\sqrt{a}}{\sqrt{a \pm \sqrt{a-b}}}$       (4)  $\frac{\sqrt{a}}{\sqrt{a \pm \sqrt{a+b}}}$

12. Three Professors Dr. Gupta, Dr. Sharma and Dr. Singh are evaluating answer scripts of a subject. Dr. Gupta is 40% more efficient than Dr. Sharma, who is 20% more efficient than Dr. Singh. Dr. Gupta takes 10 days less than Dr. Sharma to complete the evaluation work. Dr. Gupta starts the evaluation work and works for 10 days and then Dr. Sharma takes over. Dr. Sharma evaluates for next 15 days and then stops. In how many days, Dr. Singh can complete the remaining evaluation work.

- (1) 7.2 days      (2) 9.5 days  
 (3) 11.5 days      (4) None of these

13. If  $[x]$  is the greater integer less than or equal to 'x', then find the value of the following series

$$[\sqrt{1}] + [\sqrt{2}] + [\sqrt{3}] + [\sqrt{4}] + \dots + [\sqrt{361}]$$

- (1) 4389      (2) 4839  
 (3) 3498      (4) 3489

14. What is the value of  $\sqrt{\frac{a}{b}}$ ,

$$\text{If } \log_4 \log_4 4^{a-b} = 2 \log_4(\sqrt{a} - \sqrt{b}) + 1$$

- (1) -5/3      (2) 2      (3) 5/3      (4) 1

15. Three pipes A, B and C are connected to a tank. These pipes can fill the tank separately in 5 hours, 10 hours and 15 hours respectively. When all the three pipes were opened simultaneously, it was observed that pipes A and B were supplying water at 3/4<sup>th</sup> of their normal rates for the first hour after which they supplied water at the normal rate. Pipe C supplied water at 2/3<sup>rd</sup> of its normal rate for first 2 hours, after which it supplied at its normal rate. In how much time, tank would be filled.

- (1) 1.05 Hours      (2) 2.05 Hours  
 (3) 3.05 Hours      (4) None of these

16. The minimum value of  $3^{\sin x} + 3^{\cos x}$  is

- (1) 2      (2)  $2\left(3^{-\frac{1}{\sqrt{2}}}\right)$   
 (3)  $3^{1-\frac{1}{\sqrt{2}}}$       (4) None of these

17. In a B-School there are three levels of faculty positions i.e. Professor, Associate Professor and Assistant Professor. It is found that the sum of the ages of all faculty present is 2160, their average age is 36; the average age of the Professor and Associate Professor is 39; of the Associate Professor and Assistant Professor is

$$32 \frac{8}{11}; \text{ of the Professor and Assistant Professor is } 36 \frac{2}{3}, \text{ Had each Professor been 1 year older, each}$$

Associate Professor 6 years older, and each Assistant Professor 7 years older, then their average age would increase by 5 years. What will

be the number of faculty at each level and their average ages?

- (1) (16, 24, 20 : 45, 35, 30 years)  
 (2) (18, 24, 20 : 42, 38, 30 years)  
 (3) (16, 20, 24 : 50, 30, 30 years)  
 (4) None of these

18.  $\log_5 2$  is

- (1) An integer (2) A rational number  
 (3) A prime number (4) An irrational number

19. In a square of side 2 meters, isosceles triangles of equal area are cut from the corners to form a regular octagon. Find the perimeter and area of the regular octagon.

- (1)  $\frac{16}{2 + \sqrt{2}}; \frac{4(1 + \sqrt{2})}{3 + 2\sqrt{2}}$   
 (2)  $\frac{8}{2 + \sqrt{2}}; \frac{2(1 + \sqrt{2})}{3 + 2\sqrt{2}}$   
 (3)  $\frac{16}{1 + \sqrt{2}}; \frac{3(1 + \sqrt{2})}{3 + 2\sqrt{2}}$   
 (4) none of these

20. The smallest perfect square that is divisible by 7!

- (1) 44100 (2) 176400  
 (3) 705600 (4) 19600

21. A survey shows that 61%, 46% and 29% of the people watched "3 idiots", "Rajneeti" and "Avatar" respectively. 25% people watched exactly two of the three movies and 3% watched none. What percentage of people watched all the three movies?

- (1) 39% (2) 11% (3) 14% (4) 7%

22. In a triangle ABC the length of side BC is 295. If the length of side AB is a perfect square, then the length of side AC is a power of 2, and the length of side AC is twice the length of side AB. Determine the perimeter of the triangle.

- (1) 343 (2) 487 (3) 1063 (4) None of these

23. In a Green view apartment, the houses of a row are numbered consecutively from 1 to 49. Assuming that there is a value of 'x' such that the sum of the numbers of the houses preceding the house numbered 'x' is equal to the sum of the numbers of the houses following it. Then what will be the value of 'x'?

- (1) 21 (2) 30 (3) 35 (4) 42

24. To start a new enterprise, Mr. Yogesh has borrowed a total of Rs. 60,000 from two money lenders with the interest being compounded annually, to be repaid at the end of two years. Mr. Yogesh repaid Rs.38, 800 more to the first money lender compared to the second money lender at the end of two years. The first money lender charged an interest rate, which was 10% more than what was charged by the second money lender. If Mr. Yogesh had instead borrowed Rs. 30,000 from each at their respective initial rates for two years, he would have paid Rs.7, 500 more to the first money lender compared to the second. Then money borrowed by Mr. Yogesh from first money lender is?

- (1) 20,000 (2) 35,000  
 (3) 40,000 (4) 42,000

25. Find the coefficient of  $x^{12}$  in the expansion of  $(1 - x^6)^4(1 - x)^{-4}$

- (1) 113 (2) 119 (3) 125 (4) 132

26. Mukesh, Suresh and Dinesh travel from Delhi to Mathura to attend Janmasthan Utsav. They have a bike which can carry only two riders at a time as per traffic rules. Bike can be driven only by Mukesh. Mathura is 300Km from Delhi. All of them can walk at 15Km/Hrs. All of them start their journey from Delhi simultaneously and are required to reach Mathura at the same time. If the speed of bike is 60Km/Hrs then what is the shortest possible time in which all three can reach Mathura at the same time.

- (1)  $8\frac{2}{7}$  Hrs (2)  $9\frac{2}{7}$  Hrs

- (3) 10 Hrs      (4) None of these

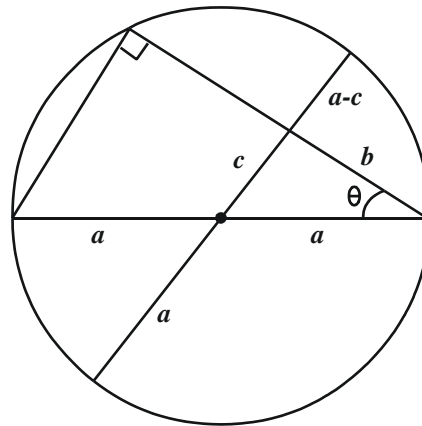
27. In a rocket shape firecracker, explosive powder is to be filled up inside the metallic enclosure. The metallic enclosure is made up of a cylindrical base and conical top with the base of radius 8 centimeter. The ratio of height of cylinder and cone is 5:3. A cylindrical hole is drilled through the metal solid with height one third the height of the metal solid. What should be the radius of the hole, so that volume of the hole (in which gun powder is to be filled up) is half of the volume of metal solid after drilling?

- (1)  $4\sqrt{3}$  cm      (2) 4.0 cm  
(3) 3.0 cm      (4) None of these

28. A small and medium enterprise imports two components A and B from Taiwan and China respectively and assembles them with other components to form a toy. Component A contributes to 10% of production cost. Component B contributes to 20% of the production cost. Usually the company sells this toy at 20% above the production cost. Due to increase in the raw material and labour cost in both the countries, component A became 20% costlier and component B became 40% costlier. Owing to these reasons the company increased its selling price by 15%. Considering that cost of other components does not change, what will be the profit percentage, if the toy is sold at the new price?

- (1) 15.5%      (2) 25.5%  
(3) 35.5%      (4) 40%

29. What is the value of  $c^2$  in the given figure, where the radius of the circle is 'a' unit.



- (1)  $c^2 = a^2 + b^2 - 2ab \cos \theta$   
(2)  $c^2 = a^2 + b^2 - 2ab \sin \theta$   
(3)  $c^2 = a^2 - b^2 + 2ab \cos \theta$   
(4) None of these

30. How many subsets of  $\{1, 2, 3 \dots 11\}$  contain at least one even integer?

- (1) 1900      (2) 1964  
(3) 1984      (4) 2048

## Section II

**Directions for questions 31 to 35.** Read the following information and choose the right alternative in the questions that follow.

During the cultural week of an institute six competitions were conducted. The cultural week was inaugurated in the morning of 19<sup>th</sup> October, Wednesday and continued till 26<sup>th</sup> October. In the span of 8 days six competitions namely debate, folk dance, fash-p, street play, rock band, and group song, were organized along with various other cultural programs. The information available from the institute is:

- i. Only one competition was held in a day
- ii. Rock band competition was not conducted on the closing day.
- iii. Fash-p was conducted on the day prior to debate competition
- iv. Group song competition was conducted neither on Wednesday nor on Saturday
- v. None of the competition was conducted on Thursday and Sunday
- vi. Street Play competition was held on Monday
- vii. There was gap of two days between debate competition and group song competition

**31.** The cultural week started with which competition?

- (1) Fash-p competition
- (2) Debate competition
- (3) Street play competition
- (4) Rock band competition

**32.** How many days gap is there between rock band competition and group song competition?

- |          |           |
|----------|-----------|
| (1) Two  | (2) Three |
| (3) Four | (4) Five  |

**33.** Which pair of competition was conducted on Wednesday?

- (1) Rock band competition and debate competition
- (2) Debate competition and fash-p competition

- (3) Rock band competition and Folk dance competition
- (4) None of these

**34.** Which competition exactly precedes the street play competition?

- (1) Rock band competition
- (2) Group song competition
- (3) Debate competition
- (4) Fash-p competition

**35.** Fash-p competition follows which competition?

- (1) Debate competition
- (2) Street play competition
- (3) Rock band competition
- (4) None of these

**Directions 36 to 38:** Read the information given below and answer the questions that follow the information.

A parking lot can accommodate only six cars. The six cars are parked in two rows in such a way that the front of the three cars parked in one row is facing the other three cars in the other row.

- i. Alto is not parked in the beginning of any row
- ii. Esteem is second to the right of *i10*
- iii. Punto, who is the neighbor of Alto is parked diagonally opposite to *i10*
- iv. Swift is parked in front of Alto
- v. SX4 is parked to the immediate right of Alto

**36.** If SX4 and Esteem exchange their positions mutually then car (s) adjacent to Esteem is (are)?

- |                          |                    |
|--------------------------|--------------------|
| (1) <i>i10</i> and Swift | (2) Only Swift     |
| (3) Only Alto            | (4) Alto and Punto |

**37.** If Alto changes position with *i10* and Punto changes position with SX4 and Swift shifts one position to the right to accommodate Beatle then the car (s) parked adjacent to Beatle is (are)?

- (1) Punto only
- (2) *i10* and SX4

(3) Punto and Alto (4) Alto and Swift

**38.** In the original parking scheme four new cars enter the parking lot such that Wagon-R is second to the right of *i10* and Zen is second to the left of SX4. Jazz is parked second to the left to Wagon-R and Beat is parked to the right of Alto then the cars that moved out are?

(1) Esteem and Swift (2) Punto and Alto  
(3) *i10* and Alto (4) Punto and SX4

**Directions 39 to 43:** Read the information given below and answer the next five questions that follow :

- i. Six friends Rahul, Kabeer, Anup, Raghu, Amit and Alok were engineering graduates. All six of them were placed in six different companies and were posted in six different locations, namely Tisco-Jamshedpur, Telco-Pune, Wipro-Bangalore, HCL-Noida, Mecon-Ranchi and Usha Martin-Kolkata. Each of them has their personal e-mail id's with different email providers i.e., Gmail, Indiatimes, Rediffmail, Yahoo, Hotmail, Sancharnet, though not necessarily in the same order.
- ii. The one having e-mail account with Sancharnet works in Noida and the one having an e-mail account with Indiatimes works for Tisco.
- iii. Amit does not stay in Bangalore and does not work for Mecon, the one who works for Mecon has an e-mail id with Gmail.
- iv. Rahul has an e-mail id with Rediffmail and works at Pune.
- v. Alok does not work for Mecon and the one who works for Wipro does not have an e-mail account with Yahoo.
- vi. Kabeer is posted in Kolkata, and does not have an account with Hotmail.
- vii. Neither Alok nor Raghu work in Noida.
- viii. The one who is posted in Ranchi has an e-mail id which is not an account of Rediffmail or Hotmail.
- ix. Anup is posted in Jamshedpur.

**39.** The man who works in Wipro has a e-mail account with?

(1) Sancharnet (2) Yahoo  
(3) Rediffmail (4) None of these

**40.** Which of the following e-mail-place of posting-person combination is correct?

(1) Kabeer-Kolkata-Rediffmail  
(2) Alok-Bangalore-Indiatimes  
(3) Amit-Noida-Yahoo  
(4) Raghu-Ranchi-Gmail

**41.** Which of the following is true?

(1) Amit is posted at Ranchi  
(2) Raghu is posted at Jamshedpur  
(3) Kabeer has an e-mail id with Yahoo  
(4) Rahul has an e-mail id with Indiatimes

**42.** Which of the following sequences of location represent Alok, Kabeer, Anup, Rahul, Raghu, and Amit in the same order?

(1) Bangalore, Noida, Pune, Jamshedpur, Ranchi, Kolkata  
(2) Bangalore, Kolkata, Jamshedpur, Pune, Noida, Ranchi  
(3) Kolkata, Bangalore, Jamshedpur, Pune, Noida, Ranchi  
(4) None of these

**43.** People who have e-mail account with Indiatimes, Sancharnet and Yahoo work for which companies, in the same sequence as the e-mail accounts mentioned?

(1) Usha Martin, HCL, Wipro  
(2) Tisco, Wipro, Usha Martin  
(3) HCL, Tisco, Wipro  
(4) Tisco, HCL, Usha Martin

**44.** How many 'zeroes' are there in the following sequence which are immediately preceded by a nine but not immediately followed by seven?  
7090070890702030045703907

(1) One (2) Two  
(3) Three (4) Four

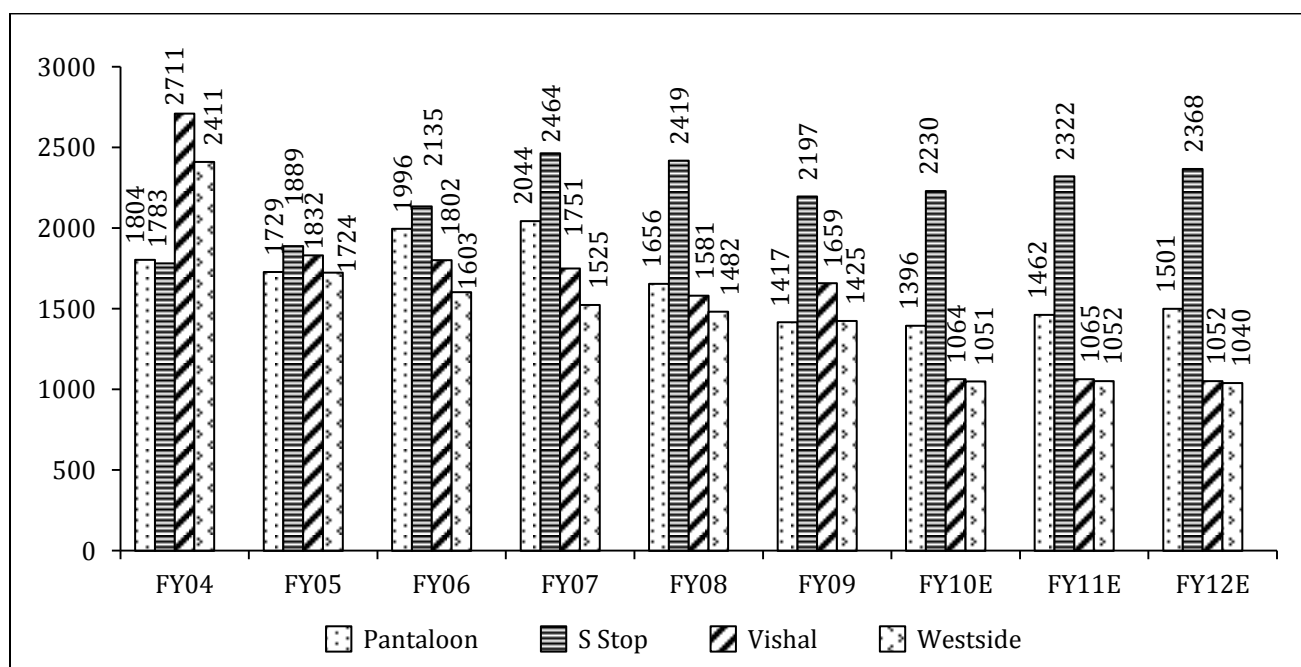
**45.** A Retail chain has seven branches in a city namely R1, R2, R3, R4, R5, R6, R7 and a central distribution center (DC). The nearest branch to the DC is R6 which is in the south of DC and is 9

Km away from DC. R2 is 17 Km away from DC in the west. The branch R1 is 11 Km away R2 further in the west. The branch R3 is 11 Km in the north east of R1. R4 is 13 Km from R3 in the east. R5 is 11 Km in the north east of the distribution center. In the north east of R6 is R7 and distance between them is 15 Km. The distance between R1 and R6, R2 and R6, R6 and R5 is 23 Km, 19 Km, 13 Km respectively. R3 is 14 Km away from the DC in the north west direction, while R2 is also 14 Km away from R4 in the north east direction of

R2. A truck carrying some goods starts from the distribution center and has to cover at least four stores in a single trip. There is an essential good that has to be delivered in the store R7, but the delivery at R7 has to be done in the end, so what is the shortest distance the truck would travel?

- (1) 55      (2) 56      (3) 63      (4) 66

**Directions for question 46 to 48:** Following graph represents the cost per square feet of four retailers from the financial year 2004 to 2012. The expected cost per square feet for year 2010, 2011 and 2012 are forecasted figures.



46. Which retailer shows the sharpest decline in cost per square feet and in which year?

- (1) Westside, 2005    (2) Pantaloon, 2008    (3) S. Stop, 2009    (4) Vishal, 2010

47. Which retailer has shown the maximum increase in its cost per square feet and in which year?

- (1) S. Stop, 2006    (2) S. Stop, 2007    (3) Pantaloon, 2006    (4) Vishal, 2006



48. What is the average rate of change in the cost per square feet of the retail sector, if the sector is represented by the above four retailers in the period FY07 to FY10E?

- (1) -8.12                      (2) -10.86  
(3) -6.73                      (4) None of these

**Directions 49 to 52:** The table below represents the information collected by TRAI about the Service Area wise Access of (Wireless + Wire line) subscribers in India. On the basis of the information provided in the table answer the questions that follow.

Service Area	Subscribers (in Millions)		Service Area	Subscribers (in Millions)	
	Dec 2009	March 2010		Dec 2009	March 2010
U.P.(E)	39.68	45.53	Orissa	13.57	15.89
Bihar	33.17	38.36	Mumbai	27.21	29.43
Karnataka	35.5	39.91	Kerala	25.69	27.65
Andhra Pradesh	43.89	48.09	Punjab	20.03	21.7
TN (Chennai Included)	53.17	57.26	Delhi	29.38	31.01
Madhya Pradesh	29.89	33.55	Haryana	13.59	14.96
Maharashtra	43.02	46.53	Kolkata	16.55	17.87
U.P.(W)	28.47	31.97	Assam	8.11	9.06
West Bengal	22.68	26.07	North East	4.94	5.64
Gujarat	31.37	34.43	Jammu And Kashmir	5.22	5.78
Rajasthan	32.22	35.27	Himachal Pradesh	4.83	5.34

49. Which *service* area has observed maximum rate of change from Dec 2009 to March 2010 (in percentage)?

- (1) U.P. (E)                      (2) Bihar  
(3) Orissa                      (4) Haryana

50. As a result of a decisions to allow only two or three telecom operator in a particular service area, TRAI allocates R-Com and Vodafone to operate only in the east of India and Idea and Airtel operate only in south. R-Com has got 28% subscribers in the east while Vodafone has 72% subscribers; similarly Idea has 48% subscribers

in the south while Airtel has 52% subscribers. How many subscribers do these four players have in 2010?

- (1) R-Com-28.03, Vodafone-73.22, Idea-86.22, Airtel-89.5  
(2) R-Com-30.03, Vodafone-72.82, Idea-85.02, Airtel-80.04  
(3) R-Com-28.03, Vodafone-76.24, Idea-84.01, Airtel-85.67  
(4) R-Com-30.03, Vodafone-77.22, Idea-82.99, Airtel-89.91

51. Due to operability issues early in 2010 Madhya Pradesh and entire UP was added to the eastern telecom circle. The telecom operators in Madhya Pradesh and entire UP namely R-Com, Vodafone and Idea had 28%, 40% and 32% subscribers respectively. What is the percentage of subscribers that each player has in the newly formed eastern circle in March 2010?

- (1) R-Com-30.01%, Vodafone-55.72%, Idea-14.27%  
(2) R-Com-32.01%, Vodafone-53.72%, Idea-14.27%  
(3) R-Com-28%, Vodafone-55.72%, Idea-16.27%  
(4) None of these

52. The all India rate of change in number of subscribers from December 2009 to March 2010 is?

- (1) 10.7%                      (2) 10.5%  
(3) 11.8%                      (4) 12.4%

**Directions for questions 53 to 57:** In order to quantify the intangibles and incentives to the multi brand dealers (dealers who stock multiple goods as well as competing brands) and the associated channel members, a **Company(X)** formulates a point score card, which is called as brand building points. This brand building point is added to the sales target achieved points for redemption. The sales target achieved point is allotted as per the table 3 of this question. The sum of brand building point and sales achieved points is the total point that can be redeemed by the dealer against certain goods, as shown in the second table.

**The detail of the system is shown in the tables below:**

<b>Table 1: Brands Building Score Card</b>						
<b>Brand Building Criteria</b>	<b>Points that are allotted if any of the each is achieved</b>					
<b>Company(X) Signage</b>	Only Company X signage on main entrance on the store	Company X signage on the main entrance along with other brands	Company X signage in the corner of the counter	Company X signage Outside the counter	No signage of Company X	Other brands signage only
<b>Points</b>	20	10	5	5	0	-20
<b>Company(X) Wall painting in the exterior of the store</b>	Only Company X painting in the walls of the store	Company X painting on main entrance with other brands	Company X painting on the side wall of the store	Company X painting outside the store on some other structure	No painting of Company X	Other brands painting only
<b>Points</b>	20	5	2.5	2.5	0	-10
<b>Company(X) painting in the interior of the store</b>	The interior of the store has only Company X painting	Company X painting in the Back side of the counter	Company X painting on the side wall in the interior	Not painted	Others' painting only	
<b>Points</b>	10	5	2.5	2.5	-10	
<b>POP (point of purchase) display of Company(X)</b>	All POP display is of Company X	The POP display of company X is at the eye level with other brands	Above the eye level with other	Below the eye level with other brands	Store does not have any POP material	Store has only Other brands POP material
<b>Points</b>	25	10	5	5	0	-20
<b>Stacking of Company (X) goods in the shelves</b>	Goods of Company X only in the front row	Goods of Company X share front row with other brands	Company X goods are only in the back row	Goods of Other brands in the front row only		
<b>Points</b>	25	10	0	-20		

Table 2: Point Redemption Options		
Sl. No	Goods in offer	Total Points required for Redemption
1	Umbrella	40
2	Nike Cap	100
3	T-Shirt	200
4	Tupperware Set	600
5	Ray Ban Glasses	800
6	Banarasi Silk Saree	2000
7	Kanjivaram Saree	4000

Table 3: The point calculation on sales target achieved is	
Sales Target	Points Assigned
<50% of the Sales Target	0
50% - 75%	10
75% - 99%	12
100%	15
Each extra unit sold above the sales target	0.25

There are 10 multi brand dealers in Nasik and the sales that they have achieved in the end of a quarter are:

Dealers	Sales Target (July-Sep) in units	Actual Sales
Bhounik Brothers	25,000	24,378
Subhajit Traders	28,000	29,241
Srikrishna Traders	40,000	42,000
Nikil Choudhary & Co	43,000	42,000
M/s Dinesh Kumar	25,000	25,000
Variety Stores	22,000	23,000
Rajib & Co	22,000	22,000
Malling Enterprise	23,000	24,000
Saha H/W	24,000	24,512
Maheshwari & Co	50,000	56,241

53. Maheshwari & Co has Company X signage along with other brand signage in the main entrance of the store, the exterior walls of the store have the painting of only company X, the side wall in the interior has the painting of Company X. The POP display of Company X is above the eye level with other brands while the stacking of goods of Company X is in the back row of the shelves. The brand building points when combined with the sales achieved points amounts to the total points that a dealer can accumulate in a quarter. The number of Tupperware Sets that Maheshwari & Co can redeem after the quarter (July to September) is?

- (1) 2                      (2) 3                      (3) 4                      (4) 5







































