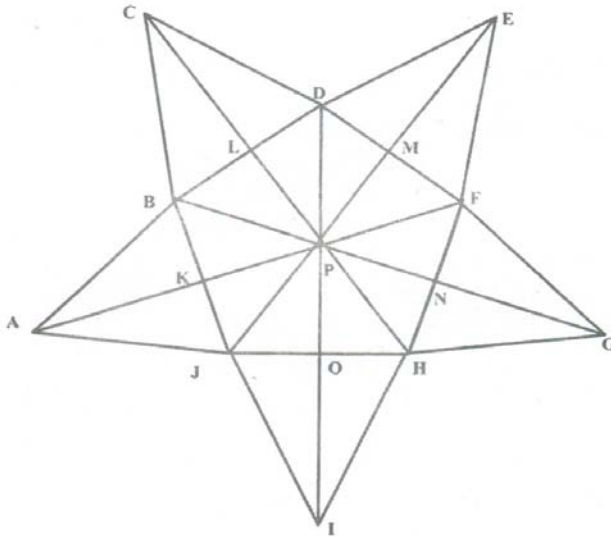


Direction for Qs. 21 – 24: Based on the figure given below, the relationship of the terms to the right of :: is same as that on the left. Find the missing terms.



21. $GHF : CDB :: EFD : ?$
 (a) ABJ
 (b) CBD
 (c) IJH
 (d) AJB

Solution

21. (a); GHF is a triangle and CDB is the triangle position alternatively. Similarly EFD and ABJ are triangles at alternate position. Option (a)

Question

22. $HNP : PDA :: DLP : ?$
 (a) CDP
 (b) PJG
 (c) PHE
 (d) PME

Solution

22. (b); Checking corresponding positions of alphabets.
 $HNP : PDA :: DLP : PJG$. Option (b)

Question

23. $AKJO : IOHN :: ? : CLBK$
 (a) LDME
 (b) EMGH
 (c) EMDL
 (d) CLDM

Solution

23. (c); Checking corresponding positions of alphabets
 $AKJO : IOHN :: EMDL : CLBK$. Option (c)

Question

24. BPM : GNJ :: ? : AKD
 (a) FPO
 (b) KPD
 (c) HPB
 (d) FPM

Solution

24. (a); Checking corresponding positions of alphabets
 BPM : GNJ :: FPO : AKD. Option (a)

Directions for Qs. 25 – 27: Read the information provided and answer the questions which follow.

In one of the islands of Neverland, people from two tribes exist namely A and B. On the island there is no other tribe except these two. The activities of these tribes are governed by rigid norms and are strictly obeyed for marriages. The norms are :

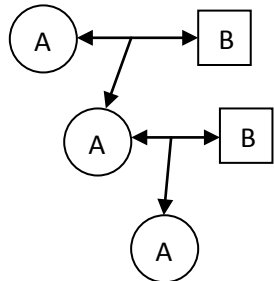
- The people of one tribe cannot marry any other member of their own tribe though they can marry people from other tribe.
- After being married, each male member ceases to be a member of that tribe in which he was born and becomes the member of the tribe to which his wife belongs.
- The females continue to remain members of the tribe in which they were born even after marriage.
- On birth, the child becomes the member of the mother's tribe.
- The males become members of the tribe in which they were born when they become divorcee or widower.
- As per norms, nobody can have more than one spouse at a given point of time.

Question

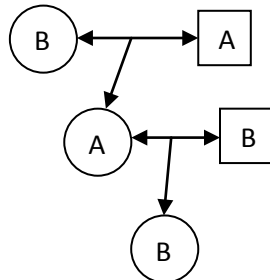
25. A female in tribe B can have
 a. Maternal Grandmother born in tribe A
 b. Paternal Grandmother born in tribe A
- (a) Only a can be true
 (b) Only b can be true
 (c) Both a and b are true
 (d) Neither a nor b can be true

Solution

25. (b);



So maternal grandmother born in tribe (A) cannot have female granddaughter born in tribe (B). (a) is not true



So a paternal grandmother born in tribe A can have a female grand daughter born in tribe B. (b) is true. Option (b)

Question

26. A boy born in tribe B
- (a) Can have his daughter in tribe B
 - (b) Can have his daughter in law in tribe A
 - (c) Can have uncle from any tribe
 - (d) Can have a divorced son in tribe B

Solution

26. (c); A boy born in tribe B cannot have daughter in tribe (B) as his tribe will change to A on marriage and his children will belong to tribe A. As his children are born in tribe A his son will be in tribe A and daughter in law in tribe B. So both option (a) and option (b) are wrong. As he is born in tribe B, his mother born is tribe B and father born in tribe A. So his uncle can belong to tribe (A) or (B). So option (c) is correct.

Question

27. Which of the following marriages are not permissible as per norms
- (a) Any widower marries his wife's sister
 - (b) Any widow marries the former divorced husband of her daughter
 - (c) Any girl of tribe B marries her mother's brother
 - (d) Any widower born in tribe A marries his brother's widow

Solution

27. (c); A girl of tribe B has her mother born in tribe B. Also the brother of her mother born in tribe B. So she cannot marry mother's brother. Option (c) is correct.

Direction for Qs. 28 – 31: On the basis of the information provided, answer the questions below.

Six friends Ana, Belle, Cinderella, Diana, Elsa and Ferida are sitting on the ground in a hexagonal shape discussing their trades i.e. cook, hairdresser, washerwoman, tailor, carpenter and plumber. All the sides of the hexagon are of the same length. The seating arrangement is subject to following conditions.

- Ana is not adjacent to the hairdresser or Cinderella
- The tailor is not adjacent to Cinderella or Elsa but adjacent to Ana
- Hairdresser and Cinderella are adjacent to each other.
- Plumber is in the middle of tailor and Cinderella in a clockwise direction.
- Cook is adjacent to the Carpenter who is adjacent to Belle in an anti-clockwise direction.
- Ferida is a plumber and Elsa is adjacent the cook.
- In a clockwise direction, the washerwoman is followed by the hairdresser

Question

28. Who is at the same distance from Diana as carpenter is from Diana?
- (a) Belle
 - (b) Cinderella
 - (c) Tailor
 - (d) Plumber

Question

29. If one neighbor of cook is Elsa, who is the other?
- (a) Cinderella
 - (b) Diana
 - (c) Belle
 - (d) Ferida

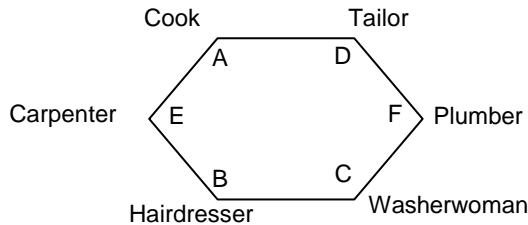
Question

30. What are the trades of Diana and Elsa?
- (a) Tailor and Carpenter
 - (b) Cook and Carpenter
 - (c) Tailor and Washerwoman
 - (d) Tailor and Plumber

Question

31. Who is sitting opposite to the plumber?
(a) Ana
(b) Elsa
(c) Diana
(d) Cinderella

Directions for sol. 28 – 31: Use the diagram for answering the questions.



Solution

28. (b)

Solution

29. (b)

Solution

30. (a)

Solution

31. (b)

Directions for Qs. 32 – 34: On the basis of the information provided, answer the questions below.

A, B, C, E, F, G and H are 7 employees in an organization working in different departments of Administration, Finance and Logistics. There are atleast two employees in each department. Out of these 7, 3 are females and one is in each department. Each employee gets a different salary. F works in Administration and his only other colleague G earns the maximum. C, the least earner works in Finance. B and E are brothers and are not in the same department. A, husband of H, works in Finance and earns more than F, B and E. The wife in the couple earns more than the husband.

Question

32. In which of the departments, does a group of 3 work?
(a) Logistics
(b) Logistics or Administration
(c) Administration or Finance
(d) Finance or Logistics

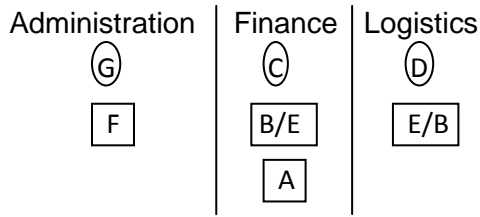
Question

33. Which of the following statement is true?
(a) B earns less than A and H
(b) B earns less than F and H
(c) F earns more than B and E
(d) B earns more than E and C

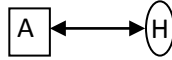
Question

34. In descending order of income, H is at which position?
(a) 2
(b) 3
(c) 5
(d) 1

Directions for Qs. 32 – 34:



G H A F/B/E F/B/E F/B/E C
 (max) (least)



Solution

32. (d)

Solution

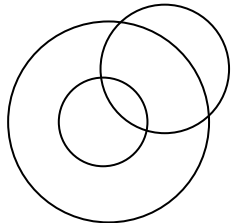
33. (a)

Solution

34. (a)

Question

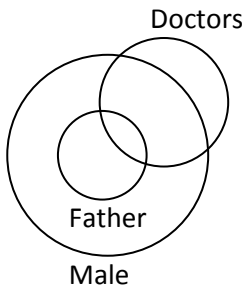
35. The diagram below, explains which of the given relationship



- (a) Judge, Thief, Criminal
- (b) Tea, Coffee, Beverages
- (c) Males, Fathers, Doctors
- (d) Cabinet, Minister, Home Minister

Solution

35. (c);



Question

36. Insert the missing number

15		2
	80	
5		6

9		7
	65	
4		6

13		16
	?	
11		8

- (a) 35
- (b) 48
- (c) 72
- (d) 120

Solution

36. (b);

$$(15 - 5) \times (2 + 6) = 80$$

$$(9 - 4) \times (7 + 6) = 65$$

$$\therefore (13 - 11) \times (16 + 8) = 48$$

Option (b)

Question

37. In the following question, one term in the number series is wrong. Find out the wrong term.

10, 26, 74, 218, 654, 1946, 5834

- (a) 654
- (b) 26
- (c) 1946
- (d) 218

Solution

37. (a);

$$10 \times 3 - 4 = 26$$

$$26 \times 3 - 4 = 74$$

$$74 \times 3 - 4 = 218$$

$$218 \times 3 - 4 = 650$$

654 is wrong in the series therefore, option (a) is correct.

Question

38. In the question below, three incomplete rows of letters/numerals are given which correspond to each other in some way. Find the letters/numerals which come in the vacant places marked by “?”

_	A	D	A	C	B	_	_	B	D	C	C
1	3	_	_	1	2	4	2	_	_	_	_
a	_	_	b	_	_	c	d	?	?	?	?

- (a) a, c, d, d
- (b) d, a, c, c
- (c) c, a, d, d
- (d) d, c, a, a

Solution

38. (d);

C	A	D	A	C	B	D	B	B	D	C	C
1	3	4	3	1	2	4	2	2	4	1	1
a	b	c	b	a	d	c	d	d	c	a	a

Hence option (d) is correct.

Question

39. Choose the conclusion which logically follows from the given statement irrespective of commonly known facts.

Statement : All branches are flowers. All flowers are leaves

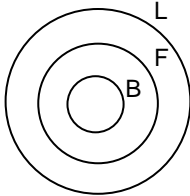
Conclusion :

- I. All branches are leaves
- II. All leaves are branches
- III. All flowers are branches
- IV. Some leaves are branches

- (a) None follows
- (b) Only I and IV follow
- (c) Only II and III follow
- (d) All follow

Solution

39. (b);



- 1. All branches are leaves (T)
- 2. All L are B (F)
- 3. All F are B (F)
- 4. Some L are B (T)

Option (b) is correct.

Directions for Qs. 40 – 42: On the basis of the information provided, answer the questions below.

Eight doctors P, Q, R, S, T, U, V, and W of the same family i.e. father, mother, father's sister, mother's brother, 2 daughters and 2 sons visit a clinic every day for one hour each except on Monday which is holiday. The timings are 9 am to 1 pm and 2 pm to 6 pm, with lunch time from 1 pm to 2 pm. Each has a different specialization namely Cardiologists, Orthodontist, Neurologist, Pediatrician, Gynecologist, Urologist, Radiologist and General Physician.

- No doctor visits the clinic before doctor Q and after doctor U.
- The Orthodontist visits right after lunch and is followed by R who is a female.
- The mother comes in at the same place before lunch as the younger son P after lunch.
- The General Physician is the sister of Urologist's father and is last to visit before lunch.
- The Cardiologist is the first while the elder daughter is the last to visit.
- T is the mother's brother of U and visits between the father and mother.
- Before 1 pm, V comes after the Radiologist, who is second to visit during the day
- S, the mother comes at 11 am after the father.
- The Neurologist is at the same place after lunch as the Gynecologist before lunch and comes right after Urologist .

Solution for Qs. 40 – 42:

As per the given information's following table can be made

Time	Name	Relation	Specialist
9-10	Q	Father	Cardiologist
10-11	T	Mother's Brother	Radiologist
11-12	S	Mother	Gynecologist
12-1	V	Father's sister	General Physician
1-2	Lunch time		
2-3	W	Elder son	Orthodontists
3-4	R	Younger Daughter	Urologist
4-5	P	Younger son	Neurologist
5-6	U	Elder daughter	Pediatrician

Question

40. The General Physician is a _____ and comes at _____
- (a) Female, 11 am
 - (b) Female, 12 noon
 - (c) Male, 11 am
 - (d) Male, 12 noon

Solution

40. (b)

Question

41. R is a _____ by specialization and is Cardiologist's _____
- (a) Orthodontist, Sister
 - (b) Pediatrician, Daughter
 - (c) Urologist, Mother
 - (d) Urologist, Daughter

Solution

41. (d)

Question

42. If lunch break and subsequent working hours are reduced by 15 minutes on Wednesday, then Doctor U who is _____ and Cardiologist's _____ will reach the clinic at _____
- (a) Radiologist, Sister, 3:15 pm
 - (b) Urologist, Daughter, 4:15 pm
 - (c) Pediatrician, Daughter, 5:45 pm
 - (d) Pediatrician, Daughter, 4:15 pm

Solution

42. (d)

Question

Directions for Qs. 43 – 47: After receiving the disturbing news of falling standards the Supreme Council of Confederation of five kingdoms is considering to conduct joint entrance examination for all students in these kingdoms for Vaidya Ratna course. As a first step, it has been decided to review the past five year data about the individual entrance examination of the kingdoms so that an appropriate action can be taken. Study the table given below and answer the questions.

		Anga	Banga	Chedi	Dwarka	Gandhar
2012	Appeared	5000	4000	2600	6000	4500
	Passed	850	640	468	780	765
2013	Appeared	5500	4500	2500	8000	3500
	Passed	770	810	275	1120	595
2014	Appeared	6000	6500	1900	6500	4500
	Passed	1200	1235	266	715	810
2015	Appeared	5000	5500	2500	5500	4000
	Passed	750	880	275	935	520
2016	Appeared	7000	6000	2000	7000	6000
	Passed	1190	660	400	1330	1200

Question

43. What is the overall pass percentage from Anga kingdom for all the years together?
- (a) 16.7
 - (b) 17.5
 - (c) 18.7
 - (d) 15.5

Solution

43. (a);
Total appeared = 28500
Total passed = 4760
Pass percentage = $\frac{4760}{28500} \times 100 = 16.7\%$. Option (a)

Question

44. In which of the following years, total number of candidates passed from all the kingdoms is lowest?
- (a) 2012
 - (b) 2013
 - (c) 2014
 - (d) 2015

Solution

44. (d)
Total number of candidates passed from all the kingdoms are as follows
For 2012 = 3503
For 2013 = 3570
For 2014 = 4226
For 2015 = 3360
Option (d) is correct

Question

45. In which of the following years, Banga kingdom recorded highest pass percentage?
- (e) 2012
 - (f) 2013
 - (g) 2014
 - (h) 2016

Solution

45. (c);

$$2012 = \frac{640}{4000} = 16\%$$

$$2013 = \frac{810}{4500} = 18\%$$

$$2014 = \frac{1235}{6500} = 19\%$$

$$2016 = \frac{660}{6000} = 11\%$$

Option (c)

Question

46. What is the overall pass percentage of all the kingdom together in the year 2013?

- (a) 13.88
- (b) 14.88
- (c) 15.88
- (d) 16.889

Solution

46. (b)

$$\text{In 2013 pass percentage} = \frac{770 + 810 + 275 + 1120 + 595}{5500 + 4500 + 2500 + 8000 + 3500}$$

$$= \frac{3570}{24000} \times 100 = 14.875\%$$

Option (b)

Question

47. Highest number of candidates passed are from which of the following kingdoms for all the years together?

- (e) Anga
- (f) Banga
- (g) Gandhar
- (h) Dwarka

Solution

47. (d);

Number of candidates passed for the kingdoms are as follows

Anga 4760

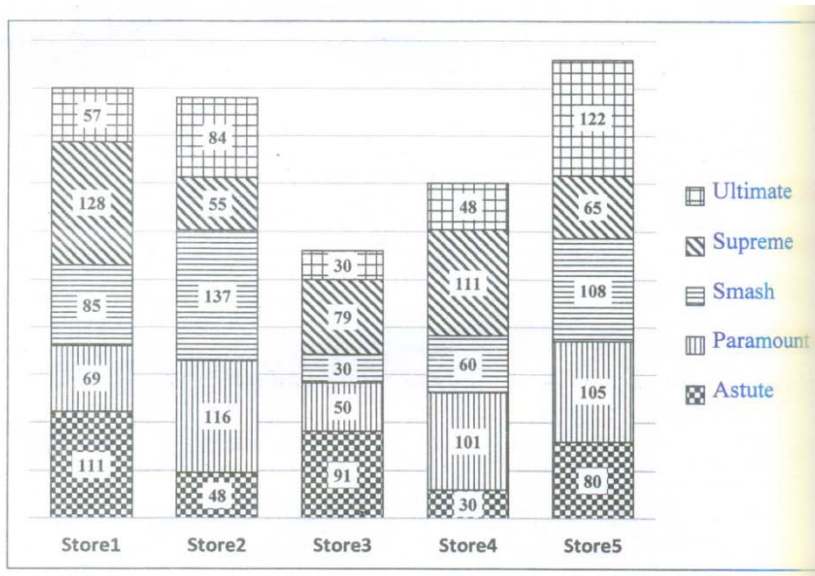
Banga 4225

Gandhar 3890

Dwarka 4880

So correct option is (d)

Directions for Qs. 48 – 52: T-Nation, a T Shirt manufacturing company has unleashed 5-5-5 strategy, five brands (Ultimate, Supreme, Smash, Paramount, Astute), five sizes (S, M, L, XL, XXL), and five Stores (S1, S2, S3, S4, S5) to capture New Delhi market. Number of T-Shirts in each of the store is given in the stacked bar chart below.



Note : Visibility of a brand in a store is given by number of T-shirts of the brand in the store by total number of T-Shirts in the store. Visibility across the stores is measured by sum of the scores of visibility of a brand in a store.

Question

48. Which brand of T-shirt has more visibility across the stores?
 (a) Astute
 (b) Supreme
 (c) Paramount
 (d) Smash

Question

49. Which brand has lowest visibility score in any of the stores?
 (a) Astute
 (b) Smash
 (c) Paramount
 (d) Ultimate

Question

50. Suppose, size M constitutes 22% of all the T-shirts owned by T-nation. It is also given that size M T-shirts in stores 1, 2 and 5 are 10% of the total T-shirts in these stores. Then, the total number of T-shirts of size M in store 4 cannot be less than
 (a) 23
 (b) 28
 (c) 32
 (d) 44

Question

51. What is the approximate share of Supreme brand in all stores together?
 (a) 19
 (b) 22
 (c) 18
 (d) 20

Question

52. Approximately, by what percentage are Smash T-shirts greater than Ultimate T-shirts in all the stores together?
 (a) 79
 (b) 50
 (c) 35
 (d) 23

Directions for Sol. 48 – 52:

$$\text{Visibility} = \frac{\text{No. of T – shirts of brand}}{\text{Total No. of T – shirts in the Store}}$$

The following table can be created using the information given in the bar graph.

	A	P	Sm	Sup	Ult		A	P	Sm	Sup	Ult
S ₁	111	69	85	128	57	450	24.6	15.33	18.88	28.4	12.66
S ₂	48	116	137	55	84	440	10.9	26.3	31.13	12.5	19.1
S ₃	91	50	30	79	30	280	32.5	17.9	10.7	28.2	10.7
S ₄	30	101	60	111	48	350	8.57	28.8	17.1	31.7	13.7
S ₅	80	105	108	65	122	480	16.6	21.8	22.5	13.5	25.4
			420	438	341	2000	93.17	110.13	100.5	114.3	81.56

Using the table

Solution

48. (b)

Solution

49. (a)

Solution

50. (a)

Solution

51. (b)

Solution

52. (d)

Directions for Qs. 53 – 57: Given below is the data about Domestic Investment (DI) and Foreign Investment (FI) in 9 different sectors over 5 year period.

(In Rs. Crores)

Sectors	2009		2010		2011		2012		2013	
	DI	FI	DI	FI	DI	FI	DI	FI	DI	FI
Basic Materials	1500	800	1500	1300	2500	1400	2000	900	2500	800
Communication Services	2000	1400	1200	1000	1600	1100	1000	300	500	1200
Consumer Cyclical	1000	1500	1200	1500	1100	3000	500	700	900	1900
Consumer Defensive	1300	1000	700	1600	1500	800	2000	500	1800	1600
Energy	800	1200	500	1400	700	2500	600	1000	1100	500
Financial Services	1800	500	400	2000	1200	1600	1000	1500	700	1400
Healthcare	2000	3000	600	3000	400	6000	1000	1500	3500	600
Real Estate	500	2000	1000	1500	4000	3000	6000	1500	2000	2100
Technology	1500	2500	1000	2800	1500	5000	1200	2000	3000	4000

Note : DI = Domestic Investment; FI = Foreign Investment

Question

53. What is the approximate ratio of the total investment in Energy sector to that of Financial services sector?
- (e) 1 : 1.2
 - (f) 3 : 4.5
 - (g) 1 : 0.5
 - (h) 2 : 3.8

Solution

53. (a);

$$\frac{\text{Total Investment in energy}}{\text{Total Investment in Financial Service sector}} = \frac{103}{121}$$

= 1 : 1.2
Option (a)

Question

54. Absolute difference between the Total DI and Total FI is highest for which sector?
- (e) Technology
 - (f) Healthcare
 - (g) Basic Material
 - (h) None of the above

Solution

54. (e);

Total FI in Technology = 16300
Total DI in Technology = 8200
Absolute difference = 8100
This is highest (calculate other values)

Question

55. In which year the average DI is the highest?
- (i) 2013
 - (j) 2011
 - (k) 2010
 - (l) 2009

Solution

55. (a);
Total DI in different years are as follows
2009 = 12400
2010 = 8100
2011 = 14500
2013 = 16000
So it is highest in 2013. Option (a)

Question

56. Which Sector has received the 2nd lowest investment from DI for the total period?
 (a) Consumer cyclical
 (b) Consumer durable
 (c) Energy
 (d) None of the above

Solution

56. (a);

Total DI in various sectors all through the years is as follows

- BM = 10000
 - CS = 6300
 - CC = 4700
 - CD = 7300
 - Energy = 3700
 - FS = 5100
 - Health = 7500
 - Real Estate = 13500
 - Technology = 8200
- So 2nd lowest value is in Consumer cyclical. Option (a)

Question

57. What is the approximate ratio of total DI to total FI?
 (i) 1 : 1.10
 (j) 2 : 2.36
 (k) 0.75 : 1
 (l) 0.75 : 1.5

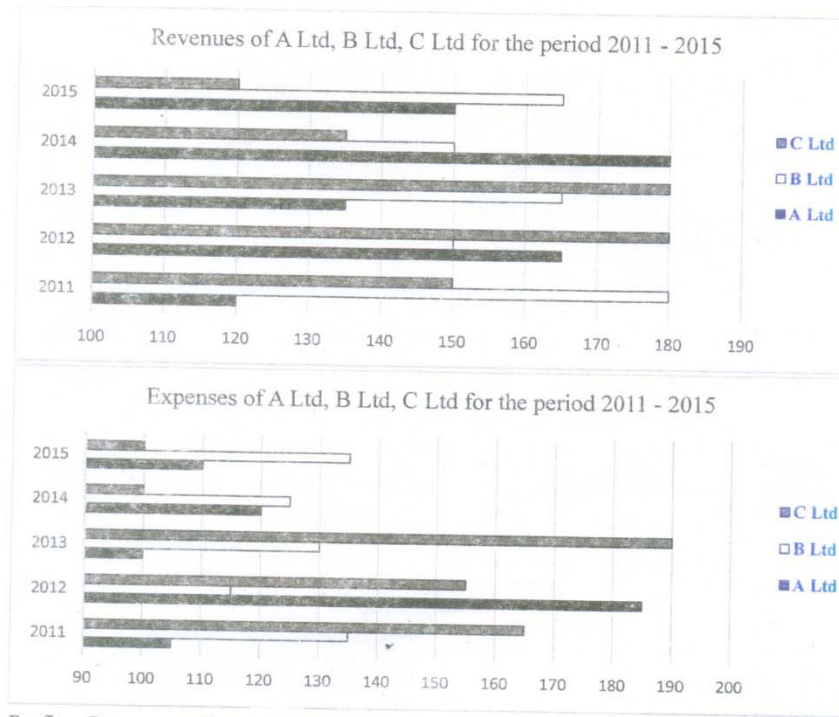
Solution

57. (b);

$$\text{Total DI} = \frac{66300}{78400} = \frac{1}{1.18}$$

Which is same as 2: 2.36
 Option (b)

Directions for Qs. 58 – 62: The following 2 bar charts represent revenues and expenses (in thousands) of A Ltd, B Ltd, and C Ltd over a period of five years.



Profit = Revenues - Expenses

Question

58. For which company, the average annual expenses were maximum in the given period?
- (e) A Ltd
 - (f) B Ltd
 - (g) C Ltd
 - (h) Both A Ltd and B Ltd
 - (i)

Solution

58. (c);

Total annual expenses for various companies are

A Ltd = 620

B Ltd = 640

C Ltd = 710

As the total is maximum for C Ltd

Average will be maximum of C.

Question

59. For which year, the average annual revenue (considering all three companies) was the maximum?
- (e) 2011
 - (f) 2012
 - (g) 2013
 - (h) 2014

Solution

59. (b);

Total annual revenue for various years are as follows:

2011 – 450

2012 – 495

2013 – 480

2014 – 465

For 2012 it is maximum

Question

60. What was the approximate percentage decline in the revenue of C Ltd in 2015 as compared to the revenue in 2012?
- (e) 16
 - (f) 25
 - (g) 33
 - (h) 40

Solution

60. (c);

In 2012 revenue for C is 180

In 2015 revenue for C is 120

$$\text{So \% decline} = \frac{180 - 120}{180} = 33.33\%$$

Question

61. What was the approximate absolute difference between the average revenue of A Ltd in 2011, 2012 and 2013 and the average revenue of B Ltd in 2013, 2014 and 2015?
- (a) 20
 - (b) 160
 - (c) 20000
 - (d) 26000

Solution

61. (c);

Total revenue of A in 2011, 2012, 2013 = 4,20,000

Total revenue of B in 2013, 2014, 2015 = 4,80,000

Absolute difference = 60,000

Average difference = $\frac{60000}{3} = 20,000$

Question

62. For which of the following years the percentage of rise/fall in profit from the previous year was the maximum for A Ltd?

- (a) 2012
- (b) 2013
- (c) 2014
- (d) 2015

Solution

62. (b);

Profits for A Ltd. in various years are

2011 15

2012 - 20

2013 35

2014 60

2015 40

In 2012 % fall = $\frac{-20 - 15}{15} = 233\%$

In 2013 % rise = $\frac{35 + 20}{20} = 275\%$

In 2014 % rise = $\frac{60 - 35}{35} = 71\%$

In 2015 % fall = $\frac{60 - 40}{60} = 33\%$

So it is maximum in 2013

Option (b).