## Quantitative Aptitude

Directions (1-5): What will come in place of question mark (?) in the following number series?

1. 1, 7, 49, 343, (?)
a) 16807
b) 1227
c) 2058
d) 2401
e) None of these
2. $13,20,39,78,145$, (?)
a) 234
b) 244
c) 236

d) 248
e) None of these
3. 12, 35, 81, 173, 357, (?)
a) 725
b) 715
c) 726
d) 736
e) None of these
4. $3,100,297,594,991$, (?)
a) 1489
b) 1479
c) 1478
d) 1498
e) None of these
5. 112, 119, 140, 175, 224, (?)
a) 277
b) 276
c) 287
d) 266
e) None of these

Direction : (6-10) What approximate value should come in place of question mark in the following equations.
6. $\frac{6.23}{34.98} \times 24.999=$ ?
a. 560
b. 540
c. 520
d. 580
e. 600
7. $(4722+3272+5324) /(491+769+132)=$ ?
a. 40
b. 10
c. 15
d. 25
e. 20
8. $22 \frac{1}{3} \%$ of $435.1-\frac{11}{7}$ of $1734.68=$ ?
a. 59
b. 62
c.50Type equation here.
d. 69
e. 78
9. $(1681)^{\wedge} \frac{1}{2}+(4094)^{\wedge} \frac{1}{3}=$ ?
a. 57
b. 75
c. 78
d. 67
e. 76
10. $(803.63)^{2}=$ ?
a. 506000
b. 787800
c. 646400
d. 767600
e. 566000

Direction (11-15) In each of these questions' two equations are given. You have to solve these equations and give answer
11. I. $x^{2}-6 x=7$
II. $2 y^{2}+13 y+15=0$

a. if $x<y$
b. if $x>y$
c. if $x=y$ or relation cannot be established
d. if $x \geq y$
e. if $x \leq y$
12. $1.3 x^{2}-7 x+2=0$
II. $2 y^{2}-11 x+15=0$
a. if $x<y$
b. if $x>y$
c. if $x=y$ or relation cannot be established
d. if $x \geq y$
e. if $x \leq y$
13. I. $10 X^{2}-7 x+1=0$
II. $35 y^{2}-12 y+1=0$
a. if $x<y$
b. if $x>y$
c. if $x=y$ or relation cannot be established
d. if $x \geq y$
e. if $x \leq y$
14. I. $4 x^{2}=25$
II. $2 y^{2}-13 y+21=0$
a. if $x<y$
b. if $x>y$
c. if $x=y$ or relation cannot be established
d. if $x \geq y$
e. if $x \leq y$
15. I. $3 x^{2}+7 x=6$
II. $6\left(2 y^{2}+1\right)=17 y$
a. if $x<y$

b. if $x>y$
c. if $x=y$ or relation cannot be established
d. if $x \geq y$
e. if $x \leq y$

Direction (16-20) Refer to the following pie charts and solve the questions based on it.


## Family B


16. Both the families decide to double the total expenditure keeping the pattern of spending the same as given above. What will be the new ratio of expenditure on food between family $A$ and family $B$ ?
a) $18: 31$
b) $31: 27$
c) $2: 3$

d) $3: 2$
e) None of The Above
17. If the total expenses of family $B$ increases three - fold, keeping the expenses on education the same as given above, what will be the expense on education?
a) $6.33 \%$
b) $57 \%$
c) $19 \%$
d) $18 \%$
e) None of The Above
18. What will be the expenses on light by family $A$, as a percentage of expense on light by family $B$ ?
a) $120 \%$
b) $83.33 \%$
c) $62.5 \%$
d) $66.66 \%$
e) None of The Above
19. If family $A$ and family $B$ decide to combine their expenses, then which one of the following heads will be responsible for the highest expenses?
a) Rent
b) Miscellaneous
c) Food
d) Education
e) None of The Above
20. In the above question, how many heads will have a lower percentage share in the combined total expenses of both the families than the percentage share of family B under the same head?
a) 1
b) 2
c) 3
d) 4
e) None of The Above

Direction (21-25) Study the following bar graph and table carefully to answer the questions given below (1-5):
The following bar graph shows data related to population of different states(in lakhs) in the year 1992


The following table shows the ratio blw male, female and literacy, illiterate and also graduates and under graduates.

| Different states | Male and female | Literacy and illiterate | Graduates and <br> undergraduates |
| :---: | :---: | :---: | :---: |
| Bihar | $3: 2$ | $1: 4$ | $4: 7$ |
| AP | $4: 6$ | $4: 1$ | $6: 7$ |
| HP | $3: 4$ | $2: 1$ | $3: 2$ |
| Haryana | $5: 4$ | $3: 2$ | $7: 8$ |
| Odisha | $2: 3$ | $2: 3$ | $4: 5$ |
| Assam | $2: 1$ | $7: 2$ | $6: 7$ |

21. If in the year 1993 there was an increase of $10 \%$ population of AP. and $12 \%$ of Bihar compared to the previous year, than what was the ratio of the population of AP. to Bihar?
a. $521: 540$
b. $405: 530$
c. $408: 505$
d. 407:560
e. None
22. What was the approximate percentage of women of Andhra Pradesh to the women of HP?
a.90\%
b.110\%
c. $120 \%$
d.126\%
e.95\%
23. if $70 \%$ of total no of literate population in Assam are graduate what is the total no of under graduates in the Assam in the year 1992?
a. 65300
b. 70000
c. 62021
d. 82120
e. None
24. In Haryana, if $70 \%$ of the females are literate and $75 \%$ of the males are literate, what is the total number of illiterates in the state?
a.12,2500
b. 85,000
c. 84,000
d. 81,000
e. None
25. What is the ratio of literates in Assam to the literates in Bihar?
a. $2: 5$
b. $3: 5$
c. $7: 15$
d. 2 : 3
e. None
26. Two cars of same length are running in in the same direction with speed 60 kmph and 90 kmph .The latter completely cross the man in 24 sec . The length of the each bus is
a. 100
b. 200
c. 250
d. 150
e. None of these
27. Two equal bottles are filled with water and milk. The amount of water in each container is $20 \%$ and $30 \%$. What is the ratio of milk in both the bottles respectively ?
a. $3: 4$
b. $5: 6$
c. $8: 7$
d. 9:8
e. None of these
28. Ravi bought a car at $30 \%$ discount on its original price. He sold it with $50 \%$ increase on the price he bought it.The new sale price is by what percent more than the original price ?
a. 2\%
b. $4 \%$
c. $8 \%$
d. $5 \%$
e. 1\%
29. Among a group of 5 men and 6 women , 4 members is to be selected for an event. Find the probability that at least one man is selected?
a. 21/22
b. $10 / 12$
c. $8 / 9$
d. 5/4
e. $2 / 3$

30. Two pipes can fill the tank in 4 hrs 5 hrs respectively while the third pipe can empty the tank in 20 hrs , if all the pipes are opened together, then the tank will be filled in
a. $4(1 / 2) \mathrm{hrs}$
b. $2(1 / 2) \mathrm{hrs}$
c. $5(1 / 2) \mathrm{hrs}$
d. $2(1 / 4) \mathrm{hrs}$
e. None of these
31. From the salary, Pavan spent $15 \%$ for house rent, $5 \%$ for children's education and $15 \%$ for Entertainment. Now he left with Rs. 26,000 . His salary is
a. 20000
b. 25000
c. 28000
d. 35000
e. 40000
32. $A$ and $B$ invested in a business. They earned some profit which they divided in the ratio of $2: 3$. If $P$ invested Rs. 15,000, the amount invested by $B$ is
a. 21500
b. 20500
c. 22500
d. 23000
e. 25000
33. Milk and water are in the ratio of $3: 2$ in a mixture of 70 liters. How much water should be added so that the rate of milk and water become 2:3?
a. 20
b. 28
c. 35
d. 40
e. 50
34. length of a rectangle is reduced by $40 \%$. By what percent would the width have to be increased to maintain the original area?
a. $66.66 \%$
b. $50.55 \%$
c. $44.44 \%$
d. $40.45 \%$
e. $20.22 \%$
35. What approximate value should come in place of the question mark (?) in the following questions. $25.675 \%$ of $1321+64.328 \%$ of $4001=$ ?
a. 2520
b. 2020
c. 2550
d. 2890
e. 2000

## English

## Direction (36-40) Read the following passage carefully and answer the questions given below in the context of the passage..

The phenomenon of terrorism signifies violence by disgruntled groups of people determined to achieve certain political goals which they find, are not attainable by lawful means. This menace has lately assumed a global character and many countries including the U.S.A are affected by it. Terrorism is actually an infantile attitude, a sign of immaturity, just as certain other movements indicate political senility. It is wrong, however, to believe that terrorists are born. Like naxalites, Radicals and Reformers, they are the victims of certain unfavorable conditions and circumstances. These circumstances, in turn, are often the redressing political, economic and other grievances. Bitterly disappointed individuals or groups resort to violence in order to focus attention on their problems. Terrorism sprouts and flourishes where there is intense anger and resentment against the administration, the Government's lapses and postures of neglect towards certain discordant elements feed the unrest, and when this reaches a high level, it bursts into terrorism. Terrorists generally belong to the lower middle class, sometimes to well-placed families and poor class.
36. Terrorism has lately assumed a
a. serious threat
b. global character
c. national character
d. Indian character
e. None of these
37. Like Naxalites, terrorists are the victims of
a. political interference
b. unemployment
c. ignorance
d. unfavourable circumstances and conditions
e. None of these
38. According to the passage, terrorism has affected
a. Asia
b. Britain
c. India
d. the entire world
e. None of these
39. Terrorists belong to
a. the lower middle class
b. well placed families
c. poor class of people
d. all of the above
e. None of these
40. Terrorists are bitterly disappointed individuals who resort to violence in order to
a. dislodge the ruling party
b. get employment
c. focus attention on their problems
d. terrorize the innocent people
e. None of these

Direction (41-43) Read the following passage carefully and answer the questions given below it.

Once a thief named Kalu had planned to loot the king's treasury. At midnight, he went to the palace and began to drill a hole in the side wall of the treasury. The king, who was awake in his bedroom just above the treasury, came out to investigate the whirring sound. He was dressed in a simple nightgown and the thief could not recognize him. He asked Kalu who he was and what he was doing. The latter said, "Sir, I am a thief and intend to loot this treasury. I presume that you are also a thief and have come with the same intentin. No matter, let us both go inside and we shall share the loot equally. "Both entered the treasury and divided all the money and the jewels equally between them. Inside a locker they found three big diamond pieces. As the thief was puzzled as to how to divide the three pieces into two portions, the king siggested. "We have taken away everything else. Let us leave one diamond piece for the poor king and share the rest equally". Kalu agreed and when he took his leave, the king asked for his name and address. As Kalu had taken a vow of telling only the truth, he have the correct information. The king took away his share of the loot and hid it in his room. Next morning he asked his Prime Minister to inspect the treasury as he had heard some strange sounds during the previous night. The Prime Minister saw to his horror that all the valuables were missing and only a single diamond was left, perhaps inadvertantly, by the theif. He put the diamond in his oiwn shift pocket as its loss could be ascribed to the thief and nobody would suspect the Prime Minister. The Prime Minister went back to the king. The king particularly enquirerd. "Do you mean that the theif has completely denuded the treasury of its valuables and not a single item has been left?" The Prime Minister confirmed it. The king asked the chief of police to bring in Kalu. When Kalu came he was unable to recfognize the king as his accomplice of the previous night. The king asked him, "Are you the theif who h as stolen everything from my treasury leaving nothing back?" Kalu confirmed it but said, "Sir, I did leave one diamond back in the locker as advised by an accomplice of mine and it should st ill be there." The Prime Minister interrupted saying, "Your Majesty, this thief is lying. There is nothing left in the locker." The king asked the police chief to search the pockets of the Prime Minister, from where the missing diamond was recovered. The kind told his courtiers, "Here is a Prime Minister, who is a liar and a thief and here is a thief who is at truthful gentleman."
41. The king came out in the middle of the night in order to
a) Help kalu to break into the palace treasury
b) Share the loot equally between Kalu and himself
c) Find out the source of and reason for the sound he had heard
d) Catch the thief who had come to steal his valuables
e) None of these
42. Kalu could not recognize the king because
a) The king was wearing clothes like those of an ordinary person
b) The king's clothes were covered by a simple nightdown
c) Kalu had never seen the king before
d) Kalu had not seen the king descending from his bedroom
e) None of these
43. Which of the following made the king suspect the Prime Minister? The Prime Minister's statement that
a) Except for one piece of diamond all other valuables were stolen
b) All the valuables without any exception were stolen from the treasury
c) The thief was lying when he said he had left one diamond back in the locker
d) The search for the diamond did not yield any favourable result
e) None of these

Direction (44-48) : In the following passage some of the words have been left out, each of which is indicated by a number. Find the suitable word from the options given against each number and fill up the blanks with appropriate words to make the paragraph meaningfully complete.

Let's think of Jinnah in terms of the history of the subcontinent. Also, once you start to look at him, you see what an ambivalent and complicated figure (44). Even just to discover his liking for theatre and drama.
$\mathrm{He}(45)$ with Shakespeare; he wanted to become an actor ; he imitated his hero Chamberlain by wearing a monocle. Sometimes, with his speeches, you don't know if he believes what he's saying or if he's acting. There is a way in which he just took (46) a role. So did he really want what he created ? Did he know what he was doing, or was it almost like a lawyer arguing a brief? I wanted again to bring him into a human dimension and to show him in relationship to Gandhi, $(47)$ other figures like Tilak. He was a great friend of Tilak's. Now, that's a curious friendship. We think of Tilak as a kind of rightist Hindu ; Jinnah defended Tilak in court against the British. His anger at Gandhi was because Gandhi (48) religious! So there are all sorts of twists in Jinnah's story. There are quite a few people in the world who are fat and are (49). These people are(50) to several kinds of illness. Medical advice to these people is to
44.
a) he was
b) he has been
c) he had been
d) have been
e) as he was
45.
a) had liked
b) was in awe
c) was obsessed
d) related
e) was incorrigible
46.
a) at
b) on
c) in
d) for
e) kind of
47.
a) at par
b) in relation to
c) with
d) as in
e) as of
48.
a) was being
b) had been
c) has been
d) could have been
e) would be
49.
(a) underweight
(b) overweight
(c) physically fit
(d) thin
(e) emaciated
50.
(a) susceptible
(b) unsusceptible
(c) safe
(d) unsafe
(e) cured

Direction (51-55) : Given below is a sentence marked (A), after which there are five more sentences marked, (B),(C),(D),(E) and (F).these five sentences are not in their proper sequence.

Rearrange them so as to form a meaningful paragraph with $(A)$ as the first sentence; then answer the questions given below them.
(A) when I reached the station, the train had already arrived
(B) One came running up to me and with his help.l began pilling up my luggage on the entrance of the compartment.
(C) There were five minutes left for its departure.
(D) However, I made an effort to remain cool and called out to a coolie.
(E) As I carried up the last item, the train began to crawl out of the station.
(F) This made me a bit nervous as I had a lot of luggage with me.
51. Which sentence should come third in the passage?
(a) A
(b) C
(c) F
(d) E
52.Which sentence should come Second?
(a) C
(b) A
(c) D
(d) F
53.Which sentence should come Fifth?
(a) C
(b) B
(c) E
(d) F
54.Which sentence should come Fourth?
(a) B
(b) D
(c) A
(d) E
55. Which sentence should come last?
(a) C
(b) E
(c) A
(d) B

Direction (56-65) Directions :- Read each sentence to find out whether there is any grammatical or idiomatic error in it. The error if any, will be in one part of the sentence, i.e.in (A), (B), (C) or (D). Do not look for errors in spelling and punctuation. When you find an error in a sentence, mark the incorrect part. If there is no error, mark (E).

Find the Spot Grammatical Error:
56. My father told me (A)/ that if I do not (B)/ study seriously (C)/ I would fail. (D) No error. (E)
57. The girl who (A)/ met you (B)/ yesterday (C)/ is my cousin sister. (D)/ No error. (E)
58. The teacher asked (A)/ the student (B)/ why had he (C)/ not done his homework. (D)/ No error. (E)
59. I want (A)/ to get rid from (B)/ this bad habit (C)/ immediately. (D)/ No error. (E)
60. The news that $(A) /$ the Lebanon Prime Minister (B)/ was killed (C)/ in aircrash is correct. (D)/ No error. (E)
61. Be careful (A)/ lest you will (B)/ fall (C)/ and hurt yourself. (D)/ No error. (E)
62. I, along with my parents $(A) /$ were $(B) /$ present $(C) /$ at the reception. (D) No error. (E)
63. Although I tried (A)/my best (B)/I could not prevent him to do (C)/ that mischief . (D)/ No error . (E)
64. Many persons (A)/ who came to attend the meeting (B)/ did not know (C)/ each other. (D)/ No error. (E)
65. The telephone bell (A) rang (B)/ when I (C)/ took bath. (D)/ No error. (E)

## Reasoning

Directions (66-70):
66.Statements :
$S \leq R \geq Y \leq M ; Y \geq L<E$
Conclusion I: $\mathrm{M}>\mathrm{S}$
Conclusion II: $Y>S$
Conclusion III: E < R
Conclusion IV: L=S
a). None is true
b). Only I is true
c). Only III is true
d). Only II is true
e). Only I and IV are true
67.Statements :
$K>S \geq T=N \leq B<U \geq M$

Conclusion I: $\mathrm{K}>\mathrm{B}$
Conclusion II: $\mathrm{N}<\mathrm{M}$
Conclusion III: $\mathrm{S} \geq \mathrm{U}$
Conclusion IV : N < K
a). Only II and IV are true
b). Only I and II are true
c). None is true
d). Only IV is true
e). Only II and III are true
68.Statements:
$\mathrm{K}<\mathrm{Y}>\mathrm{B} \leq \mathrm{U} ; \mathrm{B} \geq \mathrm{F} \geq \mathrm{M}$
Conclusion I: $\mathrm{U}>\mathrm{M}$
Conclusion II : U $>\mathrm{K}$
Conclusion III: $\mathrm{M}=\mathrm{U}$
Conclusion IV : $\mathrm{Y}>\mathrm{M}$
a). Only either II or III is true
b). Only IV is true
c). Only IV and either I or III are true
d). Only III is true
e). Only II is true
69.Statements :
$\mathrm{T}>\mathrm{S} \geq \mathrm{U}=\mathrm{J} \leq \mathrm{D} \leq \mathrm{Y}<\mathrm{H}$
Conclusion I: T>J
Conclusion II: $\mathrm{H}>\mathrm{U}$
Conclusion III: U $\leq$ Y
Conclusion IV : S > D
a). Only I, II and III are true
b). Only I and either III or IV are true
c). All I, II, III and IV are true
d). Only II is true
e). Only I and II are true
70.Statements:
$P>B \leq Z<A ; D \geq B>T$
Conclusion I: $\mathrm{P}>\mathrm{T}$
Conclusion II : T < A
Conclusion III: $\mathrm{D}>\mathrm{T}$
Conclusion IV: $\mathrm{A}>\mathrm{B}$
a). Only I and III are true
b). Only III is true
c). All are true
d). Only IV is true
e). Only I is true

Direction (71-75): In each question below are given two or three statements followed by two or three conclusions numbered I, II and III. You have to take the given statements to be true even if they seem to be at variance with commonly known facts and then decide which of the given conclusions logically follows from the given statements, disregarding commonly known facts. Give Answer.
71.

Statements:
Some Boys are Girls.
All Boys are Madam.
Conclusions:
I. Those Boys which are not Girls are also Madam.
II. Those Boys which are not Girls are not necessarily Madam.
a) Only Conclusion I follows.
b) Only Conclusion II follows.
c) Both I \& II follow.
d) Either I or II follow.
e) None follows.
72.

Statements:
All Cows are Milk.
No Milk is White.

## Conclusions:

I. Some Cows are White.
II. No Cow is White.
a) Either I or II follow.
b) Only Conclusion I follows.
c) Both I \& II follow.
d) Only Conclusion II follows.
e) None follows.

## 73.

Statements:
Some Pens are Pen-drive.
All Printers are Pen-drive.
Conclusions:
I. All Pens being Printers is a possibility.
II. No Printer is a Pen.
a) Only Conclusion II follows.
b) Both I \& II follow.
c) Only Conclusion I follows.
d) Either I or II follow.
e) None follows.
74.

Statements:
No Stone is a Metal.
Some Metals are Paper.
All Papers are Glass.
Conclusions:
I. All Stones being Glass being is a possibility.
II. No Stone is a Paper.
a) Only Conclusion I follows.
b) Only Conclusion II follows.
c) Both I \& II follow.
d) Either I or II follow.
e) None follows.
75.

Statements:
Some Apples are Cake.
Some Cakes are Candle.

## Conclusions:

I. All Cakes are Apple.
II. Some Apples are Candle.
III. No Apple is a Candle.
a) Either I or II follow.
b) Only Conclusion I follows.
c) Both I \& II follow.
d) Only Conclusion II follows.
e) None follows.

## Direction (76-80) Study the following information carefully and answer the given questions.

Eight family members Samavesh, Trisuram, Ubaida, Vikram, Walida, Xander, Yashika and Zareen are sitting around a circular table but not necessarily in the same order. Some of them are females and some are males.

All of them are related to each other in the same way or the other. Some of them are facing the center while some are facing outside (i.e. opposite to the center).

- Only two people sit between Trisuram and Walida. Trisuram faces the center.
- Xander sits second to the right of Trisuram. Walida is the wife of Samavesh. No females is an immediate neighbor of Walida
- Ubaida is not an immediate neighbor of Trisuram. Ubaida is the daughter of Walida. Both the immediate neighbors of Ubaida face the center.
- Only three people sit between Samavesh and Ubaida's brother. Xander is not the brother of Ubaida. Neither Samavesh nor Ubaida's brother is an immediate neighbor of Xander.
- Zareen, the wife of Trisuram, sits to the immediate left of Vikram. Both Yashika and Samavesh face a directoin opposite to that of Ubaida (i.e. Ubaida faces the center then both Yashika and Samavesh face outside and vice - versa).
- Ubaida's husband sits second to the left of Yashika. Trisuram's father sits to the immediate right of Walida.
- Trisuram sits second to the right of Samavesh's father. Both the immediate neighbors of Xander are females.

76. How many people sit between Trisuram and Samavesh's father when counted from the right of Trisuram?
a) Four
b) Three
c) None of The Above
d) One
e) Two
77. Who amongst the following sits exactly between Yashika and Walida when counted from the left of Yashika?
a) Trisuram
b) Xander
c) Samavesh
d) Zareen
e) Ubaida
78. Which of the following statements regarding Trisuram is definitely true?
a) Xander and Zareen are immediate neighbors of Trisuram
b) Trisuram sits second to the left of Xander
c) Trisuram is the son of Samavesh
d) None of the given options is correct
e) Vikram is the father of Trisuram
79. Who amongst the following faces outside (i.e. opposite to the center)?
a) Walida
b) Vikram
c) Ubaida
d) Zareen
e) Trisuram
80. If it is given that Yashika is married to Xander, then what is the position of Trisuram with respect to Yashika's daughter - in - Law?
a) Third to the Right
b) Second to the Right
c) Immediate Right
d) Second to the Left
e) Third to the Left

## Direction ( 81-85) : Study the following information carefully to answer the given questions.

There are eight friends, namely Suresh, Rohit, Hrithik, Swades, Farhan, Jiten, Gopal, and Emran. All of them own a different 4-wheeler, namely Maruti Suzuki, Tata Nano, Nissan Datsun, Honda City, Mercedes Benz, Indigo, Santro and BMW, though not necessarily in the same order. All of them are sitting around a circular table facing the centre.

Emran is not a neighbor of Rohit while Jiten owns neither Santro nor BMW. There is only one person between Suresh and Swades. Hrithik, who owns Indigo, is third to the left of the one who owns Nissan Datsun. The one who is sitting opposite the one who has Tata Nano owns BMW.

Neither Suresh nor Swades has Nissan Datsun. There are two persons between Farhan and Gopal, who own Tata Nano and Mercedes Benz respectively, but neither of those two persons is Hrithik.

Suresh is second to the left of Farhan and owns Honda City. Rohit is an immediate neighbor of Gopal.
81. Who among the following owns Santro?
a) Emran
b) Swades
c) Gopal
d) Jiten
e) Can't be determined
82. How many persons are there between Hrithik and Gopal?
a) One
b) Two
c) Three
d) Four
e) None of these
83. Which of the following 4-wheelers is owned by Swades?
a) Mercedes Benz
b) Santro
c) BMW
d) Maruti Suzuki
e) None of these
84. Who is sitting third to the right of the person possessing Maruti Suzuki?
a) Suresh
b) Rohit
c) Emran
d) Swades
e) Gopal
85. Which of the following is not true about Jiten?
a) He is sitting exactly between Farhan and Rohit.
b) He is sitting opposite the person who owns Santro.
c) He owns Maruti Suzuki
d) None is true
e) All are true

## Direction (86-90) Read the following information carefully and answer the questions given below it-

Six exams Maths, science, History, Economics, English and Hindi are to be scheduled starting from 2nd March and ending on 8th march wit Sunday being an off day, not necessarily in the same order. Each of the exam

## IBPS PO Pre held on 16-10-2016 : Based on Memory

has different time duration: 40 mins, $50 \mathrm{mins}, 60 \mathrm{mins}, 75 \mathrm{mins}, 90 \mathrm{mins}$ and 100 mins , again not necessarily in the same order. 8th march is not sunday and an exam of 40 mins is scheduled on that day. Maths exam is for less than 60 mins and is scheduled immediately before English exam. There are two exams scheduled between Hindi exam which is for 100 mins and History exam which is for 60 mins. English exam is before Sunday and there are two days between sunday and maths exam. Economics exam which is for 75 mins is not scheduled on 2ndmarch. The exam schedules on saturday is of 100 mins
86. How many exams are scheduled before sunday?
(a) Two
(b) One
(c) Five
(d) Three
(e) None of these
87. Which of the following combinations of exam - Day - Time Duration is correct?
(a) English - Wednesday - 75 mins
(b) Maths - Thursday - 50 mins
(c) History - Thursday - 60 mins

(d) Hindi - Tuesday - 100 mins
(e) None is correct
88. What is the time duration of science exam?
(a) 90 mins
(b) 75 mins
(c) 50 mins
(d) 40 mins
(e) None of these
89. On which day is Economics exam scheduled?
(a) Monday
(b) Saturday
(c) Tuesday
(d) Friday
(e) Cannot be determined
90. Which day is sunday?
(a) 3rd march
(b) 2nd march
(c) 5th march
(d) 6th march
(e) Cannot be determined

Direction (91-95) Read the following information and answer the questions that follow:
(1) There are seven persons $A, B, C, D, E, F$ and $G$ based in Delhi. Each of them is from a different state, has a different profession, and plays a different instrument.
(2) C, a doctor, is from Bihar.
(3) E and F play mandolin and violin, though not necessarily in that order.
(4) $A$ is not from Kerala.
(5) The person from Kerala is an engineer and plays guitar.
(6) The lawyer plays sitar.
(7) The businessman from UP plays violin.
(8) The teacher and the cricketer play flute and piano, though not necessarily in that order.
(9) F is a pilot.
(10) The Maharashtrian is a teacher.
(11) The Gujarati plays piano.
(12) G, a Punjabi, does not play sarod.
(13) $B$ is a cricketer.
91. Which state does A belong to?
A) Gujarat
B) Kerala
C) Maharashtra
D) Can't say
E) None of these
92. Which instrument does B play?
A) flute
B) piano
C) sarod
D) Can't say
E) sitar

93. Which instrument does C play?
A) mandolin
B) sitar
C) violin
D) None of these
E) sarod
94. What is D's profession?
A) Engineer
B) Lawyer
C) Teacher
D) Can't say
E) Cricketer
95. Which state does E belong to?
A) Gujarat
B) Kerala
C) UP
D) Can't say
E) none of these

## Direction (96-100)

96. A is D's brother is B's father. B and C are sisters. How is $C$ related to $A$ ?
a. Cousin
b. Niece
c. Aunt

d. Nephew
e. None of these
97. If $X$ is the brother of the son $Y$ 's son., then how is $X$ related to $Y$ ?
a. Son
b. Brother
c. Nephew
d. Grandson
e. None of these
98. Pointing towards a girl in the picture, Sunita said, "She is the mother of Renu whose father is my son." How Sunita is related to that girl in the picture?
a. Mother
b. Aunt
c. Cousin
d. Data inadequate
e. None of the above
99. A man said to a woman, "Your only brother's son is my wife's brother." How is hte woman related to the man's wife?
a. Aunt
b. Sister
c. Mother
d. Brother
e. None of these
100. $A$ and $B$ form a married couple. $X$ and $Y$ are the brothers. $X$ is the brother of $A$. How is $Y$ related to $B$ ?
a. Brother
b. Cousin
c. Son-in-law
d. Brother-in-law
e. None of these

## Answer :

1. d.) 2401

Solution:
$1 \times 7=7$
$7 \times 7=49$
$49 \times 7=343$
$343 \times 7=2401$
2. d) 248

## Solution:

$13+12^{\wedge} 2+3,20+4^{\wedge} 2+3,39+6^{\wedge} 2+3,78+8^{\wedge} 2+3,145+10^{\wedge} 2+3$
3. a) 725

Solution:
difference x 2

## 4. e) none

## Solution:

+97,+197+297,+397,+497
$991+497=1488$
5. c) 287

Solution:
$+7 \times 1,+7 \times 3,+7 \times 5,+7 \times 7,+7 \times 9$
6.d
$==>(816 / 35) \times 25=23 \times 25=575$
Nearest value in options is 580

## 7.b

$==>13316 / 1392=13400 / 1400=9.5$
Nearest value in options is 10

## 8.d


$==>97-27=70$
Nearest value in options is 69
9.a
$==>41+16=57$
10.c
$==>(804)^{\wedge} 2=646414$
Nearest value in options is 646400
11. b

$$
\begin{aligned}
& x^{2}-6 x=7 \\
& x(x-7)+(x-7)=0 \\
& \rightarrow x=7,-1 \\
& 2 y^{2}+13 y+15=0 \\
& 2 y(y+5)+3(y+5)=0 \\
& \rightarrow y=-5,-3 / 2 \\
& \text { If } x=7, y=-5 \\
& x>y \\
& x>y \\
& \rightarrow \text { if }=-1 \\
& x>y \\
& x>y \\
& \text { i.e } x>y
\end{aligned}
$$

12. a
$3 x^{2}-7 x+2=0$
$3 x(x-2)+(x-2)=0$
$\rightarrow x=2,-1 / 3$
$2 y^{2}-11 x+15=0$
$2 y(y-3)-5(y-3)=0$
$\rightarrow y=3,5 / 2$
If $x=2$
$x<y, x<y$

if $x=-1 / 3$
$x<y, x<y$
i.e $x<y$
13. d
$10 X^{2}-7 x+1=0$
$5 x(2 x-1)-(2 x-1)=0$
$\rightarrow x=1 / 2,1 / 5$
$35 y^{2}-12 y+1=0$
$7 y(5 y-1)-(5 y-1)=0$
$\rightarrow y=1 / 7,1 / 5$
If $x=1 / 5$
$x>y$
$x=y$
If $x=1 / 2$
$x>y$
$x>y$
i.e $x \geq y$
14. a
$4 x^{2}=25$
$\rightarrow X=5 / 2,-5 / 2$
$2 y^{2}-13 y+21=0$
$2 y(y-3)-7(y-3)=0$
$\rightarrow y=3,7 / 2$
If $x=5 / 2$
$x<y$
$x<y$
if $x=-5 / 2$
Both cases $x<y$
i.e $x<y$
15. C
$3 x^{2}+7 x=6$
$3 x(x+3)-2(x+3)=0$
$\rightarrow x=2 / 3,-3$
$10 y^{2}-7 y+1=0$
$5 y(2 y-1)-(2 y-1)=0$
$\rightarrow y=1 / 2,1 / 5$
If $x=2 / 3$
$x>y$
$x>y$
if $x=-3$
$x<y$
$x<y$
16. (Option A)

If the percentage increase in the expenditure of both the families, is the same then the ratio will be the same.

## 17. (Option A)

The total consumption has become 3 times more keeping the expenses on education the same. Hence, the percentage consumption on education will become $1 / 3$ rd of the person
18. (Option B)
19. (Option C)

By visual inspection we can see that option $C$ is the correct answer
20. (Option B)

It should be understood that the final percentage of expenditure will always be in between the percentage of family $A$ and family $B$ (it is true of any mixture that the percentage composition of the mixture will be always in between the percentage compositions of the components).
21. d

The year 1993 there was an increase of $10 \%$ population of AP. and $12 \%$ of Bihar The ratio is $=370000^{*} 110 / 100: 500000^{*} 112 / 100$ =è 407 : 560
22. d

Total no of woman in AP is $=370000^{*} 6 / 10=222000$
Total no of woman in HP is $=280000 * 4 / 7=160000$
Required percentage $=(222000 / 160000)^{*} 100=\sim 126$
23. b

The total no of literate under graduates population in Assam $=300000 *\left(7 / 90^{*}(30 / 100)\right.$ =è 70000
24. a

if $70 \%$ of the females are literate and $75 \%$ of the males are literate female illiterate Haryana $=(450000 * 4 / 9)^{*}(30 / 100)$
=è 60000
male illiterate Haryana $=(450000 * 5 / 9)^{*}(25 / 100)$
=è 62500
Total no of illiterate population in Haryana=122500

## 25. c

the ratio of literates in Assam to the literates in Bihar
$=$ è $300000 * 7 / 9: 500000 * 1 / 5$
=è 21 : 45
=è 7 : 15
26. a.
$90-60=50$
$30 \times(5 / 18)=25 / 3 \mathrm{~m} / \mathrm{s}$

Distance covered in 20sec $=24 \times(25 / 3)=200$
Length of each train $=200 / 2=100$
27. c.

1st Bottle Contains $80 \%$ of milk and $20 \%$ water
2nd Bottle Contains $70 \%$ of milk and $30 \%$ water

Milk ratio $=80: 70=8: 7$
28. d.

Let original price $=$ Rs. 100
$30 \%$ discount $=$ Rs. 30
CP = 70
SP $=(150 / 100) \times 70=105$
Percentage $=(105-100) \%=5 \%$
29. a.
==> $1-$ no boy is selected
$==>1-6 c 4 / 11 c 4=21 / 22$
30. b

1/4+1/5-1/20
$==>5+4-1 / 20$
==> 8/20
$20 / 8=>2(1 / 2) h r s$
31. e.
$10+15+10=35 \%$
$100-35=65 \%=26,000$

65\% ------- 26,000
$100 \%$------ ?
Salary $=40,000$
32. c

A : B = 2:3
==>15,000:B = 2:3
$==>B=22,500$
33. c

5 units ----- 70
3 units ----- 42
Milk $=42$ water $=28$
$==>42 /(28+x)=2 / 3$
$==>$ X $=35$
34. a

Width $=40 * 100 / 100-40$
==> $4000 / 60=66.66 \%$
35. d

$==>25 / 100$ * $1320+64 / 100$ *4000
$==>330+2560=2890$
36. b
37. d
38. d
39. d
40. c
41. C
42. b
43. b
44. a
45. c
46. b
47. b
48. a
49. b
50. a
51. (c) F
52. (a) C
53. (b) B
54. (b) D
55. (b) E
56. (B) Since the principal clause of the sentence is in the past tense, the subordinate clause should also be in the past tense. Hence, that if I did not is the correct usage.
57. (D) Cousin sister is a slang use, the correct use is cousin.
58. (C) If an interrogative sentence is changed to indirect speech, the noun or pronoun is placed before the helping verb. The correct usage is why he had.
59. (B) To get rid is followed by the preposition of. Hence, the correct use is to get rid of.
60. (E) The sentence is correct.
61. (B) Lest is always followed by should and hence, the correct use is lest you should.
62. (B) In this sentence, the subject of the helping verb were is I (singular). hence. the correct use is was, the singular verb.
63. (C) Prevent is followed by the preposition from and present participle, Hence, the correct use is I could not prevent him from doing.
64. (D) Each other is used when there are only two persons. One another is used when there are many.
65. (D) The clause denotes a continuous action in the past. Hence, past continuous was taking bath should be used.
66.a

67.d

$68 . \mathrm{c}$

69.a

70.c

71.

72.

73.

74.

75.


Direction (76-80)

76. (Option D)

There is only one person sit between Trisuram and Samavesh's father when counted from the right of Trisuram.

## 77. (Option D)

Zareen sits exactly between Yashika and Walid when counted from the left of Yashika.

## 78. (Option C)

Trisuram is the son of Samavesh is definitely true regarding Trisuram.

## 79. (Option C)

Ubaida faces outside.
80. (Option E)


Trisuram is third to the left of Yashika's Daughter - in - Law. Yashika 's daughter - in - law will be Walida Direction (81-85)

81. a
82. c
83. b
84. d
85. e

Direction (86-90)

| Date | Day | Exam | Time Duration |
| :--- | :--- | :--- | :--- |
| 2nd <br> March | Wednesday | History | 60 mins |
| 3rd <br> March | Thursday | Maths | 50 mins |
| 4th <br> March | Friday | English | 90 mins |
| 5th <br> March | Saturday | Hindi | 100 mins |
| 6th <br> March | Sunday | Off | Off |
| 7th <br> March | Monday | Economics | 75 mins |
| 8th <br> March | Tuesday | Science | 40 mins |

86. e
87. b
88. d
89. a
90. d
91. c
92. b
93. e
94. a
95. c
96. b
97. d
98. e
99. a
100. d
