

ENGLISH LANGUAGE

Directions (1-10) : Read the following passage carefully and answer the questions given below it. Certain words are given in **bold** to help you locate them while answering some of the questions.

Over a couple of days in February, hundreds of thousands of point-of-sale printers in restaurants around the world began behaving strangely. Some churned out bizarre pictures of computers and giant robots signed, "with love from the hacker God himself. Some informed their owners that, "YOUR PRINTER HAS BEEN PWND'D". Some told them, "For the love of God, please close this port". When the hacker God gave an interview to Motherboard, a technology website, he claimed to be a British secondary-school pupil by the name of "Stackoverflowin". Annoyed by the **parlous** state of computer security, he had, he claimed, decided to perform a public service by demonstrating just how easy it was to seize control.

Not all hackers are so public-spirited, and 2016 was a bonanza for those who are not. In February of that year cyber-crooks stole \$81m directly from the central bank of Bangladesh—and would have got away with more were it not for a crucial **typo**. In August America's National Security Agency (NSA) saw its own hacking tools leaked all over the internet by a group calling themselves the Shadow Brokers. (The CIA suffered a similar indignity this March.) In October a piece of software called Mirai was used to flood Dyn, an internet infrastructure company, with so much meaningless traffic that websites such as Twitter and Reddit were made inaccessible to many users. And the hacking of the Democratic National Committee's e-mail servers and

the **subsequent** leaking of embarrassing communications seems to have been part of an attempt to influence the outcome of the American elections.

Away from matters of great scale and grand strategy, most hacking is either show-off vandalism or simply criminal. It is also increasingly easy. Obscure forums oil the trade in stolen credit-card details, sold in batches of thousands at a time. Data-dealers hawk "exploits": flaws in code that allow malicious attackers to **subvert** systems. You can also buy "ransomware", with which to encrypt photos and documents on victims' computers before charging them for the key that will unscramble the data. So sophisticated are these facilitating markets that coding skills are now entirely optional. Botnets—flocks of compromised computers created by software like Mirai, which can then be used to flood websites with traffic, knocking them offline until a ransom is paid—can be rented by the hour. Just like a legitimate business, the bot-herders will, for a few dollars extra, provide technical support if anything goes wrong. The total cost of all this hacking is anyone's guess (most small attacks, and many big ones, go unreported). But all agree it is likely to rise, because the scope for **malice** is about to expand remarkably. "We are building a world-sized robot," says Bruce Schneier, a security analyst, in the shape of the "Internet of Things". The IoT is a buzz-phrase used to describe the computerisation of everything from cars and electricity meters to children's toys, medical devices and light bulbs. In 2015 a group of computer-security researchers demonstrated that it was possible to take remote control of certain Jeep cars. When the Mirai malware is used to build a botnet it seeks out devices such as video recorders and web-

cams; the botnet for fridges is just around the corner.

1. Which of the following is the most appropriate title for the passage?
 - (1) Public spirited Hackers
 - (2) Broken Computer Security
 - (3) Hacking: The Criminal Offence
 - (4) The Internet of Things
 - (5) The Growing Artificial Intelligence
2. According to the paragraph, why did 'the hacker god' decide to perform a public service?
 - (1) To hack the NSA server
 - (2) To show the people that hacking was very easy
 - (3) To influence the outcome of the American elections
 - (4) To aware the people about the computer security threats.
 - (5) None of these
3. Which of the following is **NOT TRUE** in the context of the passage?
 - (1) The IoT is a buzz-phrase used to describe the computerisation of everything from cars and electricity meters to children's toys, medical devices and light bulbs.
 - (2) The hacking of the Democratic National Committee's e-mail servers was performed with the help of a malware named "Mirai".
 - (3) A group called "the Shadow Brokers" leaked hacking tools of America's National Security Agency all over the internet.
 - (4) Obscure forums oil the trade in stolen credit-card details, sold in batches of thousands at a time.
 - (5) All of these are true in the context of the passage.

4. According to the paragraph, what caused the websites like 'twitter and reddit' inaccessible to the users?

- (1) It was caused due to hacking of the security contents of the website.
- (2) Due to unscramble of the encrypted data on the websites.
- (3) Due to Dyn, an infrastructure company.
- (4) Due to surge in the worthless traffic which was forced by the hackers.
- (5) All are correct

5. Which of following statement(s) is/are correct about 'Internet of Things' according to passage?

- (A) To take remote control of all digital devices.
 - (B) A world sized Robot.
 - (C) It means computerization of everything.
- (1) Only (A) is correct
 - (2) Only (B) is correct
 - (3) Both (A) and (C) are correct
 - (4) Both (B) and (C) are correct
 - (5) All are correct

Directions (6-7) : Choose the word/group of words which is most **opposite** in meaning to the word/group of words printed in **bold** as used in the passage.

6. **Malice**

- (1) Antipathy
- (2) Malevolence
- (3) benignity
- (4) Audacity
- (5) Valour

7. **Parlous**

- (1) adventurous
- (2) fatal
- (3) terrible
- (4) innocuous
- (5) risky

Directions (8-10) : Choose the word/group of words which is most **similar** in meaning to the word/group of words printed in **bold** as used in the passage.

8. **Subsequent**

- (1) consequent
- (2) direct
- (3) anterior
- (4) foregoing
- (5) prior

9. **Subvert**

- (1) vitiated
- (2) comply
- (3) undermine
- (4) betray
- (5) overwhelm

10. **Typo**

- (1) advantage
- (2) defeat
- (3) strength
- (4) bug
- (5) stain

Directions (11-20) : Which of the phrases (1), (2), (3) and (4) given below each sentence should replace the phrase printed in **bold** in the sentence to make it grammatically correct? If the sentence is correct as it is given and no correction is required, mark (5) as the answer.

11. In the modern day, it is common to say you are **bored to death** if someone or something is incredibly uninteresting.

- (1) bored of death
- (2) bored from death
- (3) bored till death
- (4) bored until death
- (5) No correction required

12. We advised them **to going to** a hill station during the summer vacation.

- (1) for going to
- (2) that they go to
- (3) to go to
- (4) that they should have to go to
- (5) No correction required

13. They failed in **their attempt** to repair the demolished portion of the building.

- (1) for their attempt
- (2) in their attempting
- (3) with their attempt
- (4) on their attempt
- (5) No correction required

14. In Indian democracy, It is necessary for the citizens to **beware of** all the political facts about every political party.

- (1) be aware of
- (2) be aware for
- (3) beware for
- (4) be aware to
- (5) No correction required

15. We're going to have to **put down** our summer vacation until July because of the bad weather conditions.

- (1) put off
- (2) put across
- (3) put out
- (4) put back
- (5) No correction required

16. We **called on** but we weren't able to find the car part we needed to fix the gear system.

- (1) called off
- (2) called back
- (3) called around
- (4) called up
- (5) No correction required

17. If everyone **chips in** they can get the whole kitchen painted by today afternoon.

- (1) chips on
- (2) chips up
- (3) chips off
- (4) chips towards
- (5) No correction required

18. **Hang up** there. I'm sure you'll find a better job very soon because you are very sincere.

- (1) hang on
- (2) hang back
- (3) hang out
- (4) hang in
- (5) No correction required

19. When I **think of** on my youth, I wish I had studied harder and had secured good grades.

- (1) think over
- (2) think about
- (3) think out
- (4) think back
- (5) No correction required

20. A stranger **cut through** with unsolicited advice on how we could fix our relationship.

- (1) cut out
- (2) cut about
- (3) cut back
- (4) cut in
- (5) No correction required

Directions (21-30) : In the given passage there are words/group of words highlighted in **bold** and underlined. You have to decide if the words given is correct (in terms of grammar and context). If not, find out the appropriate word/group of words from the given options. In case, the suggested word/group of words is correct, select the option. 'The given word(s) is/are correct' as your answer.

As a nation, we are in a great dilemma on the financing of public higher educational institutions. Highly subsidised quality higher education, with admissions based strictly on merit, continues to be a great hope for upward socioeconomic **(21) alternate**. This public demand has also ensured that there is consensus across the political spectrum on the need for setting up new IITs, IIMs, AIIMs, NITs, etc. On the other hand, as the number of such institutions increases, the **(22) main** requirements for supporting them will prove to be a challenge.

What are the alternatives? Globally there is a shift towards charging a higher **(23) fraction** of education costs as fees — even in European countries where, traditionally, higher education was completely free. For the purpose of inclusion of students from economically weaker sections, there is the provision of

education loans, often at lower than commercial rates. This has resulted in education-loan-driven higher education, which has clear **(24) explicit** for blocking the socio-economic mobility of poor people, even in an affluent country like the United States.

In a country like India, public-funded institutions where the full fee is financed through loans are undesirable for many reasons. One, it will make education inaccessible to many who cannot afford to be **(25) casted** with such large loans. Second, heavy debt would result in higher education being seen more as capital investment. It would lead to the clear **(26) graduation** objective of getting a quick return on investment. The net result would be that graduates would opt for safe career options — even more than they currently do — that provide the “highest package” and not those choices that may be low-paying but have greater social value and impact and which the graduate may **(27) needlessly** want to pursue. Medical education in India has already fallen into this trap; with high cost of education in private and foreign institutions, the increase in volume is not resulting in **(28) producing** access for a significant section of the population. Further, in the Indian socio-economic context where, even today, most students pursue academic programmes and careers that are forced on them by family and not out of their own choice, there is another great disadvantage. Just when we were seeing some change — in at least a small fraction of students — the increase in fees or a greater loan burden would put the clock back. The “loan model” is gaining **(29) attenuations** in the public **(100) regard** in India primarily driven by the stories of high-paying jobs for IIT graduates.

21. (1) structure (2) fabric
(3) good (4) mobility
(5) The given word(s) is/are correct.

22. (1) basic (2) finance
(3) budgetary (4) ordinary
(5) The given word(s) is/are correct.

23. (1) rate (2) part
(3) portions (4) wealth

- (5) The given word(s) is/are correct.
- 24.** (1) targets
(2) implications
(3) incarnation
(4) forms
(5) The given word(s) is/are correct.
- 25.** (1) demanded (2) debited
(3) forced (4) burdened
(5) The given word(s) is/are correct.
- 26.** (1) main
(2) achievable
(3) financial
(4) accessible
(5) The given word(s) is/are correct.

- 27.** (1) affordably
(2) alternatively
(3) not
(4) genuinely
(5) The given word(s) is/are correct.
- 28.** (1) cutting (2) providing
(3) enhanced (4) fabricating
(5) The given word(s) is/are correct.
- 29.** (1) focused (2) success
(3) traction (4) force
(5) The given word(s) is/are correct.
- 30.** (1) discourse (2) domain
(3) bodies (4) opinions
(5) The given word(s) is/are correct.

QUANTITATIVE APTITUDE

Directions (31–35) : What will come in place of the question mark (?) in each of the following number series ?

31. 14, 8, 9, 14.5, 30, ?
(1) 75 (2) 76
(3) 60 (4) 65
(5) 80

32. 20, 29, 54, 103, 184, ?
(1) 310 (2) 350
(3) 305 (4) 315
(5) 320

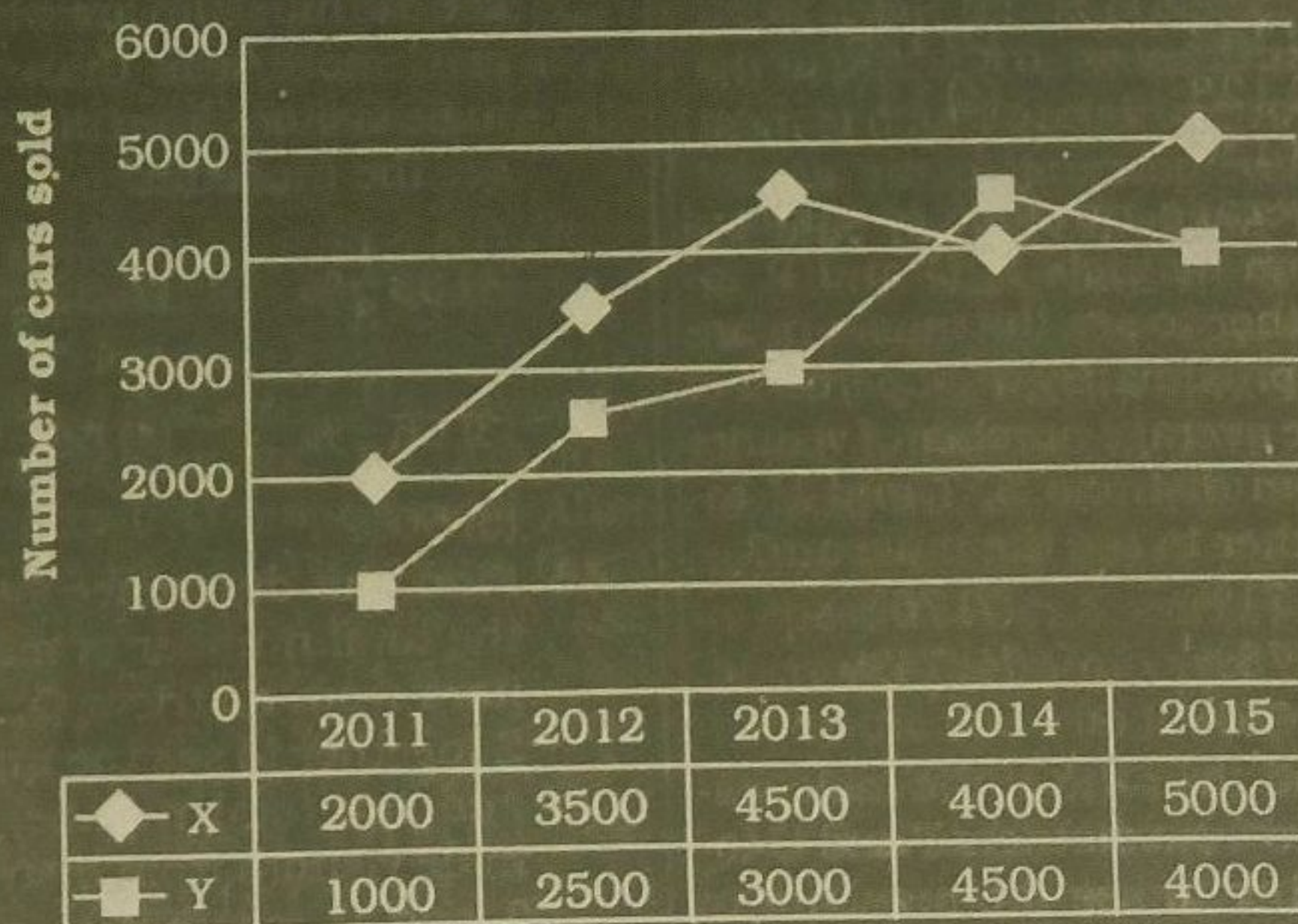
33. 7, 8, 18, 57, ?, 1165
(1) 250 (2) 234
(3) 230 (4) 232
(5) 235

34. 5, 7, 18, 47, 103, ?
(1) 195 (2) 210
(3) 200 (4) 190
(5) 220

35. 77, 85, 69, 101, 37, ?
(1) 180 (2) 165
(3) 170 (4) 120
(5) 175

Directions (36–40) : Read the following line graph and answer the following questions.

There are two car manufacturing companies (Company X and Company Y). The sale of cars by these two different companies is given in different years



- 36.** If the sale of company X in year 2016 is increased by 20% with respect to year 2015 and the sale of company Y in year 2016 with respect to year 2015 is decreased by 10% then find the total sale of the company X and Y together in year 2016?
 (1) 7200 (2) 9600
 (3) 8400 (4) 5600
 (5) 8800
- 37.** Find the ratio of the sales of company X in years 2011, 2013 and 2015 together to the total sale of company Y in years 2012 and 2014 together?
 (1) 23 : 14 (2) 14 : 23
 (3) 11 : 29 (4) 29 : 11
 (5) 23 : 11
- 38.** Total cars sold by both companies in year 2012 are what

- percent more/less than the total cars sold by both companies in year 2013?
 (1) 28% (2) 18%
 (3) 25% (4) 20%
 (5) 21%
- 39.** Find the difference between the average number of cars sold by company X from 2011 to 2015 and the average number of cars sold by company Y from 2011 to 2015?
 (1) 750 (2) 900
 (3) 800 (4) 850
 (5) 830
- 40.** Find the total number of cars sold by both companies from year 2012 to 2014?
 (1) 23000 (2) 21000
 (3) 22500 (4) 21500
 (5) 22000

Directions (41–45) : Read the following table and answer the following questions.

Districts	Museum	
	Total visitors (Male & Female)	Percentage of male out of total visitors
P	250	40%
Q	350	44%
R	375	60%
S	450	56%
T	300	55%
U	525	32%

- 41.** Total number of female visitors from districts Q and R together to see the museum are how much more/less than total number of male visitors from districts R and S together to see the museum?
 (1) 142 (2) 126
 (3) 128 (4) 131
 (5) 136
- 42.** Average number of visitors from districts P, Q and R together to see the museum are approximately what percent of the average number of visitors from districts S, T and U together to see the museum?
 (1) 71% (2) 76%
 (3) 78% (4) 74%
 (5) 85%
- 43.** Find the ratio of the male visitors from districts T and U together to see the museum to the female visitors from dis-

- tricts R and S together to see the museum?
 (1) 107 : 117 (2) 106 : 111
 (3) 111 : 116 (4) 117 : 107
 (5) 117 : 106
- 44.** Male visitors from district R to see the museum are what percent more/less than the female visitors from district T to see the museum?
 (1) $33\frac{1}{3}\%$ (2) $33\frac{2}{3}\%$
 (3) $66\frac{1}{3}\%$ (4) $66\frac{2}{3}\%$
 (5) 50%
- 45.** Find the difference between the total number of male visitors from districts Q, R and S together to see the museum and the total number of female visitors from districts S, T and U together to see the museum?

- (1) 25 (2) 75
 (3) 60 (4) 50
 (5) 59

Directions (46–50) : In each of these questions, two equations (I) and (II) are given. You have to solve both the equations and give answer
 (1) if $x > y$ (2) if $x \geq y$
 (3) if $x < y$ (4) if $x \leq y$
 (5) if $x = y$ or relationship between x and y cannot be established.

- 46.** I. $x^2 - 3x + 2 = 0$
 II. $2y^2 - 7y + 6 = 0$
- 47.** I. $3x^2 + 4x + 1 = 0$
 II. $y^2 + 5y + 6 = 0$
- 48.** I. $2x^2 + 5x + 2 = 0$
 II. $y^2 + 9y + 20 = 0$
- 49.** I. $x^2 - 7x + 10 = 0$
 II. $y^2 - 12y + 35 = 0$
- 50.** I. $(x - 12)^2 = 0$
 II. $y^2 = 144$

Directions (51–55) : What approximate value should come in place of the question mark (?) in the following questions? (Note: You are not expected to calculate the exact value.)

- 51.** $23.001 \times 18.999 \times 7.998 = ?$
 (1) 4200 (2) 3000
 (3) 3500 (4) 4000
 (5) 2500
- 52.** $33.99 \times \sqrt{?} + 42.032 \times \sqrt{?}$
 $= \frac{76}{12.998} \times (?)$
 (1) 81 (2) 72
 (3) 169 (4) 121
 (5) 144
- 53.** $94.95 \times 13.03 + \sqrt{35.98} \times 14.99 = 53 \times \sqrt{?}$
 (1) 25 (2) 144
 (3) 225 (4) 625
 (5) 900
- 54.** $1884.88 \div 144.921 + 6.99 + (?)^2 = 69.09$
 (1) 3 (2) 4
 (3) 7 (4) 6
 (5) 5
- 55.** $41\% \text{ of } 601 - 250.17 = ? - 77\% \text{ of } 910$
 (1) 800 (2) 500
 (3) 690 (4) 760
 (5) 550

56. An article is marked up 40% higher than cost price but it was sold on $x\%$ discount. The shopkeeper thus gains 12%. What would be the S:P. of the article with C.P. of Rs. 120 and sold on $x\%$ profit?

- (1) Rs. 134.50 (2) Rs. 144
(3) Rs. 128 (4) Rs. 148
(5) Rs. 157

57. There are 27 cards having numbers from 1 to 27. Two cards are picked at random one by one without replacement. What is the probability that sum of numbers on these two cards is odd ?

- (1) $\frac{13}{27}$ (2) $\frac{8}{13}$
(3) $\frac{182}{729}$ (4) $\frac{14}{27}$
(5) $\frac{15}{32}$

58. B is 20% more efficient than A. B started the work and did it for x days. And then B is replaced by A. A completed the remaining work in $(x+8)$ days. Ratio of work done by A and B is 3 : 2. In how many days will A and B working together complete the whole work?

- (1) $13\frac{11}{17}$ days (2) $12\frac{7}{11}$ days
(3) $13\frac{7}{11}$ days (4) $12\frac{8}{13}$ days
(5) $14\frac{7}{15}$ days

59. A sum of Rs. 91,000 is borrowed at 20% per annum compounded annually. If the amount is to be paid in two years, what will be the total amount?

- (1) Rs. 13,104 (2) Rs. 13,280
(3) Rs. 13,250 (4) Rs. 14,230
(5) Rs. 13,514

60. A man spends 28% of his salary on food. From the remaining he spent $\frac{1}{6}$ th on rent and

sent $\frac{3}{8}$ th to his mother. If he is left with Rs. 5280, what

amount does he send to his mother?

- (1) Rs. 4230 (2) Rs. 4320
(3) Rs. 4580 (4) Rs. 4420
(5) Rs. 4570

61. The average age of a husband and wife was 23 years when they were married 5 years ago. The average age of the husband, the wife and a child who was born during the interval, is 20 years now. How old is the child now?

- (1) 9 months (2) 1 year
(3) 3 years (4) 4 years
(5) 6 years

62. The ratio between the ages of a father and a son at present is 5 : 2 respectively. Four years hence the ratio between the ages of the son and his mother will be 1 : 2 respectively. What is the ratio between the present ages of the father and the mother respectively?

- (1) 3 : 4 (2) 5 : 4
(3) 4 : 3
(4) Cannot be determined
(5) 6 : 5

63. Total distance between A and B is d km. The distance travelled along the stream is three times of the total distance and the distance travelled against the stream is two times of the total distance. The time taken to cover distance along the stream is 10% less than the time taken to cover the distance against the stream. If a person covers a distance of 21 km in 1 hour 24 minutes along the stream, then find the rate of current?

- (1) 2 km./h. (2) 3 km./h.
(3) 1 km./h. (4) 4 km./h.
(5) 5 km./h.

64. P and Q started a business by investing Rs. 15,000 and Rs.18,000 respectively. After four months R joined them with a capital of Rs. 10,000. After two more months Q left the business with his capital. At the end of the year P got a share of Rs. 4,500 in the profit. What is the total profit earned?

- (1) Rs. 6800 (2) Rs. 7600
(3) Rs. 8600 (4) Rs. 9200
(5) Rs. 9600

65. Inside a square plot a circular garden is developed which exactly fits in the square plot and the diameter of the garden is equal to the side of the square plot which is 28 metre. What is the area of the space left out in the square after developing the garden?

- (1) 98 metre² (2) 146 metre²
(3) 84 metre² (4) 168 metre²
(5) 115 metre²

REASONING

Directions (66-70) : Study the following information carefully and answer the questions given below :

In an apartment, eight persons, i.e., D, E, F, G, H, I, J and K live on different floors but not necessarily in the same order. The lowermost floor of the building is numbered 1 and the topmost floor of the building is numbered 8. They are from different stream of Engineering i.e., Chemical Engineering Instrumentation Engineering, Software Engineering, Aeronautical Engineering, Mechanical Engineering, Electrical Engineering, Automobile Engineering, and Civil Engineering.

The one who lives on fourth floor is specialized in Mechanical Engineering. D lives on odd numbered floor but above 3rd floor. The number of persons between D and the one who is specialized in Electrical Engineering is same as number of persons between D and I. The one who is specialized in Instrumentation Engineering lives on lowermost floor. K lives on an even numbered floor and he is specialized in Automobile Engineering. There are two floors between E and H and E lives above to H. E is specialized in Aeronautical Engineering. J lives just above the one who is specialized in Aeronautical Engineering. The number of floors between the one who is specialized in Aeronautical Engineering and Mechanical Engineering is two. The one who is specialized in Civil Engineering lives on odd numbered

floor. The number of floors between the one who is specialized in Chemical Engineering and J is four. The one who is specialized in Aeronautical Engineering lives on an odd numbered floor. The number of floors between the one who is specialized in Civil Engineering and the floor on which F lives is same as the number of floors between F and G. I lives below the floor on which D lives.

66. How many persons live between the person who is specialized in Chemical Engineering and the one who is specialized in Electrical Engineering?
 (1) Six (2) One
 (3) Four (4) Two
 (5) None of these
67. J is specialized in which of the following stream of engineering?
 (1) Aeronautical Engineering
 (2) Electrical Engineering
 (3) Civil Engineering
 (4) Instrumentation Engineering
 (5) Mechanical Engineering
68. Four of the following five are alike in a certain way and hence they form a group. Which one of the following does not belong to that group?
 (1) G (2) K
 (3) H (4) I
 (5) J
69. D lives on which floor?
 (1) 1 (2) 3
 (3) 4 (4) 5
 (5) 7
70. G is related to Mechanical Engineering, in the same way as F is related to Automobile Engineering. Then, which of the following is H related to? (Following the same pattern)
 (1) Mechanical Engineering
 (2) Electrical Engineering
 (3) Civil Engineering
 (4) Instrumentation Engineering
 (5) Aeronautical Engineering
71. Which of the following symbols should replace the sign (\$) and (#) in the given expression in order to make the expressions

$P > C$ and $C \leq B$ definitely true?
 'A > B ≥ R \$ C < T ≤ Z = M # P ≥ X'
 (1) ≥, > (2) ≥, ≤
 (3) >, = (4) =, ≥
 (5) <, ≤

72. Five persons namely A, B, C, D and E are going to the school on different days of the week, starting from Monday to Friday. Two persons are going between C and B. C is going before Wednesday. D is going to the school immediately after E. A is not going on Friday. Then who among the following persons is going to school on Wednesday?
 (1) B (2) C
 (3) D (4) E
 (5) A
73. Q is the daughter of A. J is the brother of Q. J is the son of R. J is the father of S. If it is given that A is mother of Q, then what is the relation of R with respect to S?
 (1) Father
 (2) Mother-in-law
 (3) Mother
 (4) Father-in-law
 (5) Grandfather
74. In a certain code language 'economics growth registered' is written as 've jo qi', 'growth is expected' is written as 'qi lo mn', and 'registered expected number' is written as 'lo ve pr', then what is the code for "economic" ?
 (1) lo (2) pr
 (3) qi (4) ve
 (5) jo
75. If 2 is subtracted from each odd digit in the number 7493652 and 3 is added to each even digit in number then which of the following digit is repeated in the new number so obtained?
 (1) 9, 4 (2) 6, 5
 (3) 5, 4 (4) 5, 9
 (5) 5, 7

Directions (76-80) : Study the following information carefully and answer the questions given below :
 Eight people viz. A, B, C, D, P, Q, R and S are sitting in a straight

line. They all are facing north. Each one of them has a different age i.e. 14, 16, 17, 19, 21, 23, 26 and 31 year, but not necessarily in the same order.

B sits at one of the extreme end of the row. There are three persons sitting between C and Q. Q is of neither 14 nor 19 years old. There are two persons sitting between D and the person whose age is 23 years. Neither Q nor D is the oldest person. Age difference of immediate neighbours of D is 5 years. A sits to the right of R, but not immediate right. There are three persons sitting between B and the one whose age is 16 years. The one whose age is 19 years sits third to the right of C. R sits to the right of B. Q sits second to the right of the person whose age is 23 years. P sits immediate left of the person whose age is 14 years. Q is not youngest person. The one, whose age is 31 years is not an immediate neighbour of the youngest person. C is not the fourth oldest person.

76. Who sits second to the right of D?
 (1) A (2) S
 (3) P (4) R
 (5) None of these
77. How many persons sit between the persons whose age is 31 years and S?
 (1) Four (2) Five
 (3) Three (4) One
 (5) None of these
78. Who among the following persons is 26 years old?
 (1) R (2) D
 (3) C (4) S
 (5) None of these
79. If P is related to 16 years in the same way as B is related to 26 years, then which of the following is R related to, following the same pattern?
 (1) 19 year (2) 17 year
 (3) 21 year (4) 31 year
 (5) None of these
80. What is the age difference of A's immediate neighbours?
 (1) Three (2) Seven
 (3) Five (4) Six
 (5) None of these

Directions (81-85) : Study the following information carefully and answer the questions given below :

There are seven persons P, Q, R, S, T, U and V who were born on the same day of the same month of different years i.e., 1984, 1946, 1967, 1972, 1982, 1989 and 1992 but not necessarily in the same order.

Note : (A) All calculations are done with respect to the present year 2017 assuming the month and date to be the same as that of the years of birth as mentioned above.

(B) Each person is assumed to be born on the same date and same month of the respective years.

The difference between the ages of Q and R is twice the square root of the age of one of the any seven persons. Difference between the ages of R and S is the same as the number obtained by dividing ages of any of the other five persons. Age of P is greatest amongst those whose ages are multiples of five. T is older than V who is not the youngest. R is not youngest person. S was not born in 1992.

81. Who amongst the following persons is the oldest?

- (1) P (2) V
(3) U (4) T
(5) None of these

82. What is the age of R?

- (1) 33 years (2) 35 years
(3) 25 years (4) 45 years
(5) 50 years

83. How many persons are younger than U?

- (1) One (2) Two
(3) Three (4) Four
(5) None of these

84. What is the age of S?

- (1) 45 years (2) 35 years
(3) 33 years (4) 50 years
(5) 28 years

85. Who was born in 1989?

- (1) V (2) U
(3) T (4) P
(5) Q

Directions (86-87) : Study the following information carefully and answer the questions given below :

There are four boxes i.e. J, K, L and M in which four types of fruits are stored. Fruits are Litchi, Apple,

Grapes and Mango. Boxes are arranged in a manner from top to bottom.

There are two boxes between K and L. The box in which Grapes are stored is above L, but not immediately above. The box in which Apple is stored is immediately below M, but not stored in box L. Litchi box is above the Mango box, but not immediately above Apple box.

86. In which of the following boxes, Litchi is stored?

- (1) J (2) M
(3) K (4) L
(5) Either J or M

87. Which of the following fruits is stored in second lowest Box?

- (1) Grapes (2) Apple
(3) Mango (4) Litchi
(5) Cannot be determined

Directions (88-89) : Study the following information carefully and answer the questions given below :

There are six family members A, B, C, D, E and F and all of them are of different age. A is younger than only one person. E is older than B and D but not as old as A. D is older than only one person. F is youngest in the family. The age of D is 25 year and the age of person who is second oldest is 40 year.

88. Who is the oldest in the family?

- (1) C (2) B
(3) D (4) E
(5) A

89. What is the possible age of B?

- (1) 42 years (2) 20 years
(3) 55 years (4) 19 years
(5) 30 years

90. Which of the following statements shows 'A \geq R' and 'B < C' holds definitely true?

- (1) B \leq C = A \geq K = R
(2) C = K > B < R \geq A
(3) C > B > A \geq K = R
(4) B = K < C < R = A
(5) None of these

Directions (91-95) : Study the following information carefully and answer the questions given below :

Eight persons M, N, O, V, W, X, Y and Z attend seminars on different months of the year viz. March,

June, October and November, such that not more than two persons attend their seminars in each of the months. Seminars can be held on either 10th or 27th day of the month. No two seminars can be held on the same day.

W and N attend the seminars on the same month. There are three seminars between the seminars of X and O. W does not attend their seminar in November. Z attends his seminar immediately after N. V attends his seminar in the month of November. The number of persons who attend their seminars between the seminars of Y and Z respectively is the same as the number of persons who attend their seminars between the seminars of N and V respectively. X does not attend the seminar on October. W attends his seminar before N.

91. M attends his seminar on which of the following dates?

- (1) 10th October
(2) 27th November
(3) 10th November
(4) 10th March
(5) None of these

92. Which of the following persons attends his seminar on 27th March?

- (1) W (2) X
(3) M (4) N
(5) None of these

93. How many persons attend the seminar after W?

- (1) 5 (2) 4
(3) 6 (4) 3
(5) None of these

94. Who among the following persons attends the seminar on 10th October?

- (1) W (2) M
(3) Z (4) V
(5) None of these

95. How many persons attended seminar after V?

- (1) 5 (2) 4
(3) 7 (4) No one
(5) None of these

Directions (96-98) : In these questions, relationship between different elements is shown in the statements. The statements are followed by two Conclusions num-

bered I and II. Study the Conclusions based on the given statements and select the appropriate answer :

Give answer (1) if neither Conclusion I nor Conclusion II is true.

Give answer (2) if both the Conclusion I and Conclusion II are true. 11

Give answer (3) if only Conclusion I is true.

Give answer (4) if only Conclusion II is true.

Give answer (5) if either Conclusion I or Conclusion II is true.

96. Statements :

$$M > U > L \leq N; L \geq Y > A$$

Conclusions :

I. $Y < N$

II. $Y = N$

97. Statements :

$$J \geq A > D = E; L < A < M$$

Conclusions :

I. $M < J$

II. $J > L$

98. Statements :

$$M \leq K > L = Y; P \leq T > M$$

Conclusions :

I. $P > Y$

II. $T < L$

99. In a vertical row 13 persons are sitting. A is seventh from the beginning and two persons sits between G and A. The number of persons between A and L is same as the number of persons between G and Q. Then what is the position of Q from the beginning?

(1) Fourth (2) Eighth

(3) Sixth (4) Ninth

(5) Cannot be determined

100. A man walks 12 metre east from point A and reaches point B. From point B he takes left turn and walks 4 metre and then he takes right turn and walked 6 metre and again he takes right turn and walks 7 metre and again takes right turn and reaches point M. If it is given that point B is in north from point M, then what is the distance between B and M?

(1) 7 metre (2) 6 metre

(3) 5 metre (4) 4 metre

(5) 3 metre