# Directions (1-5): Read the following passage carefully and answer the questions given below them. Certain words/phrases have been printed in bold to help you locate them while answering some of the questions.

Life is messy. If we want our best and brightest in the workforce, we need to accept that they have complex lives. We need to be flexible when it comes to the realities of balancing career and family.

Being flexible at work doesn't just benefit people trying to balance their outside lives with work. An extensive body of research demonstrates the business benefits of flexible working. Yet despite this overwhelming evidence, access to flexible work and careers is not widespread. Flexible work is still regarded as an add-on, something we do for mothers for a few months when they are back from parental leave. But in the face of rapid changes to the way we work, organizations need to move beyond just having policies for flexible working or making ad-hoc adjustments for certain individuals. Companies need to fundamentally rethink the way they design work and jobs.

The World Economic Forum **predicts** that we are on the cusp of a fourth industrial revolution. Technological, socioeconomic and demographic shifts are transforming the way we work, demanding flexibility in the way individuals, teams and organizations work. We all have different things happening in our lives at different times. Not just caring for young kids, but other family members, community roles, study and volunteering. And all of these parts of our identities bring with them different skill sets. In today's workforce, fewer people identify with the stereotype of the ideal worker – a full-time, fully committed employee without personal or family commitments that impact on availability.

There are a few factors driving the demand for increased flexibility. Globalization is one. The development of a 24/7 marketplace, and the rapid expansion of the services economy are also having a transformational effect on the workplace, requiring organizations to think creatively about how they can best organize jobs and work to respond to an increasingly diverse and demanding customer base. Similarly technology is driving – and enabling – greater flexibility. It is dramatically reshaping our workplaces, blurring the boundaries between work and home and diversifying where, when and how employees work. Advances in mobile, internet and cloud technologies, the rapid development of computing power, and the digital connection between multiple objects have all driven workplace innovations such as remote working, telecommuting, co-working spaces, video/teleconferencing, and virtual teams and collaboration.

So the future of work demands new approaches to work design – but have workplaces risen to the challenge? The evidence suggests we have yet to grasp this opportunity to be more innovative.

While some employers are making flexible work more available, there is still a high prevalence of bolted-on **temporary** arrangements. These arrangements are seen as the exception to the rule, with the full-time, "face-time", long hours "ideal worker" still the model to which everyone is expected to adhere.

Many people make assumptions about flexible workers, including that they're not interested in training and development, aren't committed to the organization, or don't have any career aspirations. We need to explore and challenge these biases.

There are good international examples of successful work redesign that have involved the input of a team of employees. For example, a UK bakery sat down with their bakers and came up with a flexible system of two to three baking shifts a day to maintain a steady supply of fresh bread. The team agreed to rotate their hours each week so no team member permanently worked a shift that did not suit. After the change was made, bakery sales increased by more than 65% in the first year and employee satisfaction in the bakery has risen 10% since the change to 93%. So work redesign is not only doable, it can deliver business benefits, although it does require a completely new approach. By changing our thinking and focusing on the team and the organization as a whole, rather than the individual, we have the opportunity to create more adaptable and sustainable workplaces.

#### Q1. According to the author, how is flexible working still regarded as?

(a) the way of designing work and jobs.

(b) the way to identify the stereotype of an ideal worker.

(c) an add-on, something we do for mothers for a few months when they are back from parental leave.

(d) advances in mobile, internet and cloud technologies and the rapid development of computing power.

(e) None of these.

# Q2. According to the passage, in today's workforce, which among the following is/are the stereotype(s) of an ideal worker?

(I) a full time worker

(II) an employee who is fully committed to work

(III) the employee has no personal or family commitments that impact his availability

(a) Only (II)

- (b) Only (III)
- (c) Both (II) and (III)
- (d) Both (I) and (III)

(e) All of these.

# Q3. According to the passage, how is technology driving and enabling greater flexibility?

(a) It is identifying the stereotype of an ideal worker.

(b) It is dramatically reshaping our workplaces, blurring the boundaries between work and home and diversifying where, when and how employees work.

(c) It is training the workers on how to transform the ways in which flexibility can be introduced

(d) It is one of the factors that is contributing in declining the demand for flexibility at the workplace worldwide.

(e) None of these.

# Q4. Which of the following were the steps taken by the UK Bakery with regards to the working time of their bakers?

(I) The UK Bakery came up with a flexible system of two to three baking shifts a day to maintain a steady supply of fresh bread.

(II) The Bakery team agreed to rotate their hours each week so no team member permanently worked a shift that did not suit.

(III) The bakery sales increased by more than 65% in the first year and employee satisfaction in the bakery has risen 10% since the change to 93%.

- (a) Only (III)
- (b) Both (I) and (III)
- (c) Both (II) and (III)
- (d) Both (I) and (II)
- (e) All of these.

#### Q5. The most appropriate title of the passage is.

- (a) Complex lives of the workforce
- (b) Role of technology in increasing flexibility of workers
- (c) The brightest workforce requires more flexible work
- (d) How a UK Bakery increased their sales
- (e) Importance of Globalization in increasing workforce

Directions (6): Choose the word which is most nearly the SAME in meaning as the word printed in bold as used in the passage.

#### Q6. Predict

- (a) ignore
- (b) forecast
- (c) misunderstand
- (d) recount
- (e) narrate

Directions (7): Choose the word which is most nearly the OPPOSITE in meaning as the word printed in **bold** as used in the passage.

#### Q7. Temporary

- (a) substitute
- (b) alternate
- (c) expedient
- (d) provisional
- (e) permanent

Directions (8-15): 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. The alphabet corresponding to that part is your answer. If there is 'No error', the answer is (e). (Ignore errors of punctuation, if any.)

Q8. The priest together with (A)/his followers were fatally injured (B)/in the accident which occurred last night (C)/near the unmanned railway crossing. (D)/No Error (E)

- (a) A
- (b) B
- (c) C
- (d) D
- (e) E

Q9. The young woman who is watching television in that room (A)/lived here for more than (B)/a year but she has never created (C)/any problem for us. (D)/No Error (E)

- (a) A
- (b) B
- (c) C
- (d) D
- (e) E

Q10. Each of the employees, (A)/whom the company has chosen to take part (B)/in the international seminar to be conducted (C)/in the City Hall, are up to the mark. (D)/ No Error (E)

- (a) A
- (b) B
- (c) C
- (d) D
- (e) E

Q11. Needless to say, (A)/no sooner were all these large and rather expensive operations finished (B)/when the main electricity was brought in (C)/and the turbine became obsolete. (D)/No Error (E) (a) A

- (b) B
- (c) C
- (d) D
- (e) E
- (е) Е

Q12. Plastic bags less than 50 microns thick (A)/are banned, (B)/but neither the states nor the city corporations (C)/cares to enforce this rule. (D)/No Error (E)

- (a) A
- (b) B
- (c) C
- (d) D
- (e) E

Q13. Tribal angst over economic issues (A)/leading to the scapegoating of nontribal longtime residents (B)/reflects the continued failure (C)/to forge a more inclusive politics in Meghalaya. (D)/No Error (E)

- (a) A
- (b) B
- (c) C
- (d) D
- (e) E

Q14. The Prime Minister has great power of (A)/implementing some useful (B)/schemes but the ministers (C)/have even greatest ability to foil them. (D)/No Error (E)

- (a) A
- (b) B
- (c) C
- (d) D
- (e) E

Q15. The blunder mistake (A)/was the apparent failure of detectives (B)/to inform the Parole Board that the murderer (C)/had threatened to return to kill her. (D)/No Error (E)

- (a) A
- (b) B
- (c) C
- (d) D
- (e) E

Directions (16-20): In each question below some sentences are given which are divided into five parts. The first part of the sentence (1) is correct and is given in bold followed by four parts named A, B, C and D. Rearrange the four parts of the sentence to make a coherent paragraph. The rearranged sequence of the parts will be your answer. If the given sentence is correct as it is then choose option (e).

**Q16.** Crashes in the early days (1)/ to be caused by technical faults, (A)/ of commercial jets tended (B)/ such as metal fatigue (C) / in the airframe or engines (D)

- (a) DCAB
- (b) ABCD
- (c) BACD
- (d) CABD
- (e) No arrangement required

**Q17.** There have been a lot of (1)/ drivers not obeying (A)/ complaints recently about (B)/ in downtown Boston (C)/ the speed limits (D)/

(a) BADC

(b) ABCD

(c) BCAD

(d) CABD

(e) No arrangement required

**Q18.** Chinese officials say (1)/ dropped to a three-year (A)/ low because of (B)/ economic growth has (C)/ the world economy (D)

(a) BADC

(b) CABD

(c) BCAD

(d) CABD

(e) No arrangement required

**Q19**. **I think it's a shame that** (1)/ some foreign language teachers(A)/ studied with a native speaker (B)/ college without ever having (C)/ were able to graduate from (D)

- (a) BADC
- (b) CABD
- (c) BCAD
- (d) ADCB
- (e) No arrangement required

**Q20.** The Gita is a spiritual philosophy (1)/ addressed to all and we know that (A)/ there are all kinds of people, (B)/ each kind differing (C)/ quite significantly from the other (D)

- (a) BADC
- (b) CABD
- (c) BCAD

(d) ADCB

(e) No arrangement required

Directions (21-25): Given below are sentences consisting a blank in each. Identify the most suitable alternative among the five given that fits into the blank to make the sentence logical and meaningful.

Q21. In the same amount of time it would take me to correct all the \_\_\_\_\_\_ in your report, I could write a better report myself.

- (a) mistakes
- (b) problems
- (c) accuracies
- (d) obstacles
- (e) disputes

Q22. I have recently used the services of his	_ agency to book a cruise in the
Mediterranean.	· ·
(a) progress	
(b) deportation	
(c) travel	
(d) transfer	
(e) mover	
Q23. They would like local authorities to be given greater spent.	as to how the money is
(a) affairs	
(b) function	
(c) omission	
(d) discretion	
(e) statement	

Q24. In a 10-billion-year-old galaxy there should have been ample \_\_\_\_\_\_ for at least one species to escape its own mess, and to spread across the stars, filling every niche.

- (a) negligence
- (b) opportunity
- (c) surveillance
- (d) supply
- (e) advocacy

Q25. A true \_\_\_\_\_\_ of the resources involved in sport would include the unpaid labour

- services.
- (a) growth
- (b) consideration
- (c) guidance
- (d) suggestion
- (e) estimation

Directions (26-30): In the question given below, there is a sentence in which one part is given in bold. The part given in bold may or may not be grammatically correct. Choose the best alternative among the four given which can replace the part in bold to make the sentence grammatically correct. If the part given in bold is already correct and does not require any replacement, choose option (e), i.e. "No replacement required" as your answer.

**Q26.** Despite of being most efficient method ever, it is still highly inefficient, and this inefficiency inspires hope.

- (a) Despite being the mostly efficient
- (b) Despite of being a most efficient
- (c) Despite of being the most efficient
- (d) Despite being the most efficient
- (e) no replacement required

#### Q27. A satisfactorily number of contestant must register for the

contest in order for it to take place.

- (a) satisfactory number of contestants
- (b) satisfaction of number of contestants
- (c) satisfaction in the number of contestants
- (d) satisfactory number of contestant
- (e) no replacement required

**Q28.** The next class of wave or oscillation detector is the magnetic detector **depending in the powers of** electric oscillations to affect

the magnetic state of iron.

- (a) depend on the power in
- (b) depending upon the power of
- (c) depends upon the power in
- (d) deepening upon the power of
- (e) no replacement required

Q29. James had teaching at the university for more than a year before he left for Asia.

- (a) was taught
- (b) had been taught
- (c) had been teaching
- (d) has been teaching
- (e) no replacement required

**Q30.** His tail was short and scraggly, and his harness **had been broken in** many places and fastened together again with cords and bits of wire.

- (a) was broke from
- (b) has broke from
- (c) have been broken in
- (d) have been breaking on
- (e) no replacement required

#### Direction (31-33): Read the information carefully and answer the questions:

A company ABC printed different number of books in different years 1947, 1956, 1987, 1998, 2002 such that number of books printed are not same in any year. 66 books were printed in an odd numbered year which is not 1947. The number of books printed in 1947 is 10 less than that printed in 1987. 59 books were printed in an year before the year in which 61 books are printed but not immediate before. The number of books printed in 2002 is 2 more than that printed in 1998.

#### Q31. How many books were printed in 1947?

(a) 56

(b) 66

(c) 63

(d) 61

(e) none of these

#### Q32. What is the difference between the number of books printed in 1956 and 2002?

(a) 7

(b) 10

- (c) 8
- (d) 4

(e) none of these

#### Q33. In how many years the number of books printed are more than that printed in 1998?

- (a) two
- (b) one
- (c) none
- (d) three
- (e) four

Q34. How many words can be formed from the 1<sup>st</sup>, 6<sup>th</sup>, 8<sup>th</sup> and 9<sup>th</sup> letter of a word 'EMANICIPATE' by using each letter once in the word?

- (a) two
- (b) one
- (c) none
- (d) three
- (e) more than three

Q35. If all the letters in the word FIGURES are arranged in alphabetical order from left to right in such a way that vowels are arranged first followed by consonants, then how many letters are there in between U and R after the arrangement?

- (a) two
- (b) one
- (c) none
- (d) three
- (e) four

Q36. If in the number 39682147, 1 is added to each of the digit which is less than five and 1 is subtracted from each of the digit which is greater than five then how many digits are repeating in the number thus formed?

- (a) two
- (b) one
- (c) none
- (d) three
- (e) four

#### Direction (37-38): Read the information given below and answer the questions.

All the given members belong to the same the family. J is the brother of L. J is the only son of R. W is the father-in-law of L. D is the maternal grandfather of P, who is a male. Q is the only son of W. W is the grandfather of N and C is the daughter of N.

#### Q37. How L is related to C?

- (a) Mother
- (b) Son
- (c) Brother
- (d) Father
- (e) None of these

#### Q38. How is P related to N?

- (a) Mother
- (b) Son
- (c) Brother
- (d) Father
- (e) None of these

#### Direction (39-41): Read the information carefully and answer the question:

Point U is 10m north of point Q. Point T is 10m east of point U. Point S is 15m south of point T. Point P is 20m south of point Q. Point R is 25m east of point P. Point L is 15m east of point S. Point M is the midpoint of point U and P.

# Q39. What is the distance between point L and R?

- (a) 10m
- (b) 15m
- (c) 5m
- (d) 20m
- (e) 25m

# Q40. In which direction is point T with respect to P?

- (a) north-west
- (b) south-west
- (c) south-east
- (d) north-east
- (e) none of these

# Q41. Which of the following points are inline?

(a) P, R, S
(b) Q, M, L
(c) U, S, T
(d) M, S, L
(e) Q, S, L

# Directions (42-46): Read the following information carefully and answer the given questions.

Twelve persons sitting in two rows. D, E, F, K, L and M sitting in row-1 and facing north. S, T, U, X, Y and Z sitting in row-2 and facing south direction. E sits third from one of the extreme ends. S sits second to the left of the one who faces E. Only three persons sit between S and T. K sits somewhere right of M. More than three persons sit between X and T. F faces one of the immediate neighbours of T. Z sits second to the right of Y. The one who faces L sits third to the left of U. D faces S.

# Q42. Who among the following faces K?

- (a) T (b) S (c) X (d) Y
- (e) none of these

# Q43. Who among the following faces the immediate neighbor of M?

- (a) Z
- (b) K
- (c) D
- (d) L
- (e) None of these

Q44. Four of the following five from a group, which among the following does not belong to this group?

- (a) T, E
- (b) U, D
- (c) Y, L
- (d) Z, E
- (e) Z, K

Q45. Who among the following faces the one who sit to the immediate left of Y?

- (a) U
- (b) D
- (c) X
- (d) Z
- (e) none of these

#### Q46. How many persons sit between M and D?

- (a) one
- (b) two
- (c) three
- (d) five
- (e) four

Direction (47): Five people A, B, X, Y, and Z live on five different floors of a building (such as ground floor numbered as 1 and top is numbered as 6). There are three floors between A and B. X lives one of the floors above Y.

Q47. Who among the following lives on third floor?

- (a) B
- (b) A
- (c) X
- (d) Z
- (e) Cannot be determined

# Q48. Which of the following elements should come in a place '?' ?

AB3 CE6 FI10 JN15 ?

(a) OT20

(b) TO21

(c) OT21

(d) TS21

(e) None of these

Directions (49-51): Each of the questions below consists of a question and two statements numbered I and II given below it. You have to decide whether the data provided in the statement are sufficient to answer the question. Read both the statements and

# Given answer:

(a) If the data in statement I alone are sufficient to answer the question, while the data in statement II alone are not sufficient to answer the question.

(b) If the data in statement II alone are sufficient to answer the question, while the data in statement I alone are not sufficient to answer the question.

(c) If the data either in statement I alone or in statement II alone are sufficient to answer the question.

(d) If the data even in both statements I and II together are not sufficient to answer the question.

(e) If the data in both statement I and II together are necessary to answer the question.

# Q49. Who sits immediate to the left of Ravi, who is sitting in row. All the persons who are sitting in a row facing north direction?

**I.** There are only two persons sit between Sahil and Geeta. More than three persons sit to the left of Geeta.

**II.** Not more than 8 persons can sit in a row. Ravi sits second to the left of Sahil. Diya sits 6 places away from Geeta.

# Q50. What is the code of 'right' in a certain code language?

I. The code of 'every right to reject' is '%47 \*32 \$53 \*95',

**II.** The code of 'never reject right turn' is '%62 %47 \$51 \*32'.

# Q51. Find the number of boys and number of girls in the row?

- **I.** R sits 18<sup>th</sup> from left end of the row and Y sits 11<sup>th</sup> from the right end of the row. R and Y interchange their positions, after interchanging the position R's position is 20<sup>th</sup> from left end.
- **II.** Total 43 students are in the row and all are facing is same direction.

Directions (52-56): Study the following arrangement carefully and answer the questions given below:

B 5 R 1 @ E K 4 F 7 © D A M 2 P 3 % 9 H I W 8 \* 6 U J \$ V Q #

Q52. Which of the following is the fifth to the left of the seventeenth from the left end of the above arrangement?

(a) D

(b) W

(c) \*

(d) 4

(e) None of these

Q53. Which of the following is exactly in the middle between D and U in the above arrangement?

(a) %

(b) H

(c) 9

(d) 3

(e) None of these

Q54. Four of the following five are alike in a certain way based on their position in the above arrangement and so form a group. Which is the one that does not belong to that group?

(a) R1E

(b) F7D

(c) M23

(d) 9HW

(e) UJ6

Q55. How many such symbols are there in the above arrangement each of which is immediately preceded by a number but not immediately followed by a consonant?

(a) None

(b) One

(c) Two

(d) Three

(e) More than three

Q56. Which of the following is the tenth to the left end of the thirteenth from the right end? (a) F

(b) M

(c) @

(d) %

(e) 3

# Direction (57-58): Read the information carefully and answer the questions:

Eight persons A, B, C, D, E, F, G, H are sitting around a circular table facing centre. H faces B. Two persons sit between F and B. E sits 2<sup>nd</sup> right to D. F sits 2<sup>nd</sup> right to C, who is one of the immediate neighbors of G. C is not an immediate neighbor of B.

#### Q57. Who among the following sits 3<sup>rd</sup> left to F?

- (a) D
- (b) C
- (c) B
- (d) A
- (e) none of these

# Q58. Who among the following faces A?

(a) D
(b) C
(c) B
(d) G
(e) none of these

#### Directions (59-60): Study the following information carefully and answer the given questions.

In a certain code language,

'good key friends' is coded as 'xo pe cm'

'key law found' is coded as 'xo og bt'

'data key good' is coded as 'tu xo pe'

#### Q59. Which of the following is the code for 'good'?

- (a) xo
- (b) pe
- (c) tu
- (d) cm
- (e) None of these

# Q60. Which of the following word is coded as 'og'?

- (a) law
- (b) good
- (c) found
- (d) Either (a) or (c)
- (e) key

**Directions (61-65):** The following questions are based on the six three digits numbers given below: 563 218 732 491 929

Q61. If 2 is subtracted from the second digit of all odd numbers and 2 is added in the first digit of all even numbers, then which number is lowest number after the arrangement?

- (a) 218
- (b) 732
- (c) 491
- (d) 929
- (e) None of these

Q62. If third digit of highest number is divided by the first digit of lowest number, then what will be the resultant?

- (a) 4
- (b) 6
- (c) 4.5
- (d) 5
- (e) None of these

Q63. If all the digits in each number are arranged in increasing order, then which number will be the highest number after the rearrangement?

- (a) 218
- (b) 732
- (c) 491
- (d) 563
- (e) None of these

Q64. How many numbers will be there in the given series in which addition of first and third digit is greater than second digit?

- (a) One
- (b) Two
- (c) Three
- (d) Four
- (e) None of these

Q65. How many numbers will be there in the given series in which difference of first and third digit is greater than second digit?

- (a) One
- (b) Two
- (c) Three
- (d) Four
- (e) None of these

Directions (66-70): What should come in place of question mark (?) in the following questions?

# Q66. 18, 8, 6, 9, 32, ?

- (a) 248
- (b) 254
- (c) 251
- (d) 257
- (e) 260

#### Q67. 36, 18, 6, 3, 1, ?

- (a) 0.5
- (b) 0.25
- (c) 0.75
- (d) 0.3
- (e) 1

Q68. 18, 29, 42, 53, ?, 77

- (a) 63
- (b) 64
- (c) 65
- (d) 66
- (e) 67

Q69. 1, 244, 163, 190, 181, ?

- (a) 178
- (b) 184
- (c) 187
- (d) 190
- (e) 193

Q70. 250, ?, 190, 167, 148, 131

- (a) 215
- (b) 217
- (c) 223
- (d) 221
- (e) 219

Direction (71-75): Pie chart given below shows total number of students who opted different subjects for exam in July 2017. Study the data carefully and answer the following questions



Q71. Total number of students who opted for Geography and Maths together is how much less than total number of students who opted for Sanskrit and Physics together?

- (a) 24
- (b) 27
- (c) 30
- (d) 33
- (e) 36

Q72. Find the total number of students who gave exams in August 2017 if total number of students is increased by 20% in August 2017 as compared to July 2017.

- (a) 450
- (b) 420
- (c) 390
- (d) 330
- (e) 360

Q73. Find the central angle of total number of students who opted for Physics?

- (a) 57.6°
- (b) 54°
- (c) 50.4°
- (d) 43.2°
- (e) 64.8°

Q74. Find the average number of students who opted for Hindi, Geography and Sanskrit together?

(a) 54

(b) 55

(c) 56

(d) 57

(e) 58

Q75. Find the ratio between total number of students who opted for English, Physics and Geography together to total number of students who opted for Hindi, English and Sanskrit together?

(a) 8:9
(b) 17:19
(c) 15:16
(d) 17:18

(e) 5 : 6

Directions (76-79): What should come in place of question mark (?) in the following questions?

O76. ? =  $\sqrt{16 \times 15 + 24 \times 12 + 97}$ (a) 25 (b) 24 (c) 28 (d) 27 (e) 35 Q77. 28% of 420 + 36% of 540 = ? (a) 312 (b) 288 (c) 296 (d) 318 (e) 324 Q78. 75% of 450 + 25% of 850 = ? (a) 540 (b) 580 (c) 550 (d) 560 (e) 555 Q79.  $\sqrt{7396} + \sqrt{?} = 104$ (a) 256 (b) 400 (c) 361 (d) 289 (e) 324

Q80. Present average age of A, B and C is 22 years. Three years ago, Average age of B and C is 18 years, then find A's age 9 years hence?

(a) 24 years

- (b) 27 years
- (c) 30 years
- (d) 33 years
- (e) 36 years

Q81. Ratio between speed of boat in still water to speed of stream is 8 : 1. If 67.5km is travelled downstream in 2.5 hours then find the difference between speed of boat in still water to speed of stream(in kmph)?

(a) 15

(b) 3

(c) 24

(d) 21

(e) 17.5

Q82. The perimeter of a rectangle whose length is 6 m more than its breadth is 84 m. What will be the area of the rectangle? (in m<sup>2</sup>)

(a) 446

(b) 340

(c) 432

(d) 468

(e) 348

Q83. Interest earned on an amount after 2years at 20%p.a compounded yearly is Rs.1716. Find the interest earned on same amount after 3 years at 15%p.a at Simple interest.

- (a) Rs. 1620
- (b) Rs.1755
- (c) Rs.1665
- (d) Rs.1710
- (e) Rs.1750

Q84. In place of 18% profit an article is sold at 42% profit and seller gets Rs. 110.40 more. Find the selling price of article if it were sold at 25% profit?

- (a) Rs. 440
- (b) Rs.460
- (c) Rs.575
- (d) Rs.550
- (e) Rs.525

Q85. A and B working alone can do a work in 20 days and 15 days respectively. They started the work together but B left after sometime and A finished remaining work in 6 days. Find after how many days from start B left the work ?

(a) 5 days

(b) 4 days

(c) 6 days

(d) 3 days

(e) 7 days

Directions (86-90): In each of these questions, two equations are given. You have to solve both the equations and give answer

(a) if  $x \ge y$ (b) if  $x \ge y$ (c) if x < y(d) if  $x \le y$ (e) if x = y or no relation can be established between x and y. **Q86.** (i)  $x^2 = 196$ (ii)  $y^2 + 2y - 48 = 0$  **Q87.** (i)  $x^2 - 11x + 24 = 0$ (ii)  $y^2 - 14y + 45 = 0$  **Q88.** (i)  $2x^2 - 4x + 2 = 0$ (ii)  $2y^2 - y - 1 = 0$  **Q89.** (i)  $x^2 - 15x + 56 = 0$ (ii)  $y = \sqrt{64}$ 

**Q90. (i)**  $x^2 - x - 6 = 0$ (ii)  $y^2 - 6y + 8 = 0$ 

Directions (91-94): What should come in place of question mark (?) in the following questions?

**Q91.**  $\sqrt{441} - \sqrt{144} = \sqrt{?}$ (a) 81 (b) 9 (c) 100 (d) 10 (e) 121

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Q92. 18\frac{2}{3} - 7\frac{1}{4} = ? + 1\frac{1}{2}
(a) 9
(b) 10\frac{1}{12}
(c) 9\frac{11}{12}
(d) 9\frac{5}{6}
(e) 10
O93.\sqrt{484} \times \sqrt{169} = ? +50\% \text{ of } 312
(a) 160
(b) 150
(c) 140
(d) 130
(e) 120
O94. 15^2 + 36^2 = ? \times \sqrt[3]{2197}
(a) 127
(b) 117
(c) 137
(d) 147
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(e) 153

Q95. The profit earned on selling two articles is Rs. 80 less than profit earned on selling three articles. If 20% profit is earned on selling one article, then find the cost price of the article?

- (a) Rs.200
- (b) Rs.600
- (c) Rs.1200
- (d) Rs.800
- (e) Rs.400

**Q96. Quantity I:** 'x': Train 'A' running at a speed of 25m/sec crosses Train 'B' coming from opposite direction running at a speed of 15m/sec in 12 seconds. Length of train 'A' is twice of train 'B'. Length of train 'A' is 'x'

Quantity II: 160 meters.

- (a) Quantity I > Quantity II
- (b) Quantity I < Quantity II
- (c) Quantity  $I \ge Quantity II$
- (d) Quantity I  $\leq$  Quantity II
- (e) Quantity I = Quantity II or No relation

Q97. Average of three numbers b, c and d is 1 more than average of a, b and c. Average of a and d is 19.5

Quantity I: Number 'a' Quantity II: 21 (a) Quantity I > Quantity II (b) Quantity I < Quantity II (c) Quantity I ≥ Quantity II (d) Quantity I ≤ Quantity II (e) Quantity I = Quantity II or No relation

**Q98. Quantity I:** 'x': A pipe alone can fill a cistern in 60 minutes. But due to leakage pipe filled only 80% of the cistern in 1 hour. 'x' is the capacity of cistern in liters if due to leakage 60liter can be leaked out in 1 hour.

Quantity II: 250 liters

- (a) Quantity I > Quantity II
- (b) Quantity I < Quantity II
- (c) Quantity I ≥ Quantity II
- (d) Quantity I ≤ Quantity II
- (e) Quantity I = Quantity II or No relation

**Q99. Quantity I:** 'x': Ratio between speed of boat in still water to speed of stream is 2 : 1. Total time taken by a man to cover 72km in upstream and come back is 32 hours. 'x' is the downstream speed in kmph

Quantity II: 9 kmph

- (a) Quantity I > Quantity II
- (b) Quantity I < Quantity II
- (c) Quantity  $I \ge Quantity II$
- (d) Quantity I ≤ Quantity II
- (e) Quantity I = Quantity II or No relation

**Q100.** Quantity I: 'x': Area of a square is  $324cm^{-2}$  whose perimeter

is equal to perimeter of a rectangle. Length of rectangle is 4 cm more than breadth of rectangle. 'x' is the area of rectangle

Quantity II:  $320 \ cm^2$ .

- (a) Quantity I > Quantity II
- (b) Quantity I < Quantity II
- (c) Quantity  $I \ge Quantity II$
- (d) Quantity I ≤ Quantity II
- (e) Quantity I = Quantity II or No relation