

M.Voc. TECHNOLOGY AND MANAGEMENT CONSULTING

(Final)

Direction (Qn. Nos. 1 – 8) : Read the following passage carefully and answer the questions given below.

In India, innovation is emerging as one of the most important rubrics in the discourse on how to bring about greater and more consistent economic and social development. One observes steadily growing investments in R&D across the country, the setting up of National and State innovation bodies, as well as the introduction of government sponsored innovation funds. There have also been several conferences and debates on innovation and how to best promote and accomplish it in India and a number of articles on the subject, written for newspapers and magazines, as well as more informal platforms like online forums and blogs.

Academic engagement and Indian authorship on the subject have also exploded in the last five years. Despite widespread agreement on the importance of innovation in India, there are wide gulfs between different conceptions of innovation and the path India should take towards securing benefits through investments in innovation.

Many Indian conversations around innovation begin by talking about jugaad, that uniquely Indian approach to a temporary fix when something complex, like an automobile or a steam engine stops working. However many observers have pointed out that while the jugaad is certainly innovative, it is a response to the lack of an innovation culture- more a survival or a coping mechanism at a time of need than a systematic methodology to effectively address, a wide ranging, complex set of problems.

Another specifically Indian approach to innovation that has entered into wide currency of late is the so called “frugal innovation” deemed by many to be the most appropriate for the Indian context. In its mid-term assessment of the 11th Five year plan, the Planning Commission stressed the need for innovation in India in order to “accelerate its growth and to make growth more inclusive as well as environmentally sustainable.”The document went on to say that “India needs more of frugal innovation that produces more frugal cost products and services that are affordable by people at low levels of incomes without compromising the safety efficiency and utility of the products. The country also needs processes of innovation that are frugal in the resources required to produce the innovations. The products and processes must also have frugal impact on the earth’s resources.”

Two people formulated a similar theory called the More- from - Less -for – More (MLM Theory of innovation) which allows for more production using fewer resources but benefits more people. Under this rubric come products that are more affordable versions of existing technologies. While both frugal innovation and the MLM theory are certainly valuable in terms of bringing affordable products to a greater number of people, and may even be considered a necessary first step on what India’s innovation can accomplish, they barely graze the surface of what innovation can accomplish.. that is- innovation is capable of bringing about complete paradigm – shifts and redefining the way we perceive and interact with the world.

Take the cell phone, for example: it revolutionized communication in a previously inconceivable way, provided consumers with a product of unprecedented value and created an entirely new market. The cell phone was the result of years of directed intentional innovation efforts and large investments, and would not have been created if the people responsible simply set out to make the existing telephone cheaper and more accessible to all.

While jugaad and frugal innovation may be indicative of the Indian potential for innovativeness, this potential is not utilized or given opportunity to flourish due to lack of an enabling culture.

India's many diverse and complex needs can be met only through systematic innovation, and major shifts have to first take place in our educational institutions, government policies and commercial firms in order for such innovation enabling culture to come about.

The one thing that India's innovation terrorists have not said is that the absence of a culture of innovation is intrinsically linked to many of the most intractable problems facing India as a nation. These include poor delivery of government services, inadequate systems of personal identification and absence of widely available financial services for the rural poor, health and sanitation failures. This list can go on. Cumulatively, the inability of India as a nation, society and economy to adequately provide for its own population no longer reflects a failure of implementation, but rather a failure of innovation, for there are no immediately available shelf solutions that would make it possible for these grand challenges facing India to be redressed. Rather we need to look at these intractable problems from the more sophisticated and empowering lens of innovation, for them to begin to be solved.

1. Which of the following depict the growing importance of innovation in India?
 - (i) Increased investment in research
 - (ii) Initiation of government backed funds for innovation
 - (iii) Increase in the number of conferences arranged and articles written on innovation

(A) Only (i)	(B) (i) and (ii)
(C) (ii) and (iii)	(D) All of the above

2. Which of the following best describes the MLM theory of innovation?
 - (A) Maximise output by using least number of resources and benefitting a small number of people
 - (B) Benefit most number of people through least usage of resources and maximum output
 - (C) Maximise resource utilization and cost thereby benefit maximum number of people.
 - (D) Benefit most number of people through maximum usage of resources and minimizing cost

3. Which of the following is possibly the most appropriate title for the passage?
- (A) India and the Elixir called Innovation
 - (B) World wide developments in Innovation
 - (C) Innovation around the world vis-a vis India and other neighbouring countries
 - (D) Innovation at its Best
4. What type of message is the author employing in the entire passage?
- (A) Pessimistic
 - (B) Sarcastic
 - (C) Informative
 - (D) Urgent
5. Why, according to the author is India unable to adequately provide for its people?
- (A) Failure to implement schemes and initiatives meant for the Indian populace.
 - (B) Absence of regulatory authorities to oversee the implementation process.
 - (C) Lack of governmental schemes and initiatives to redress the challenges faced by India.
 - (D) Failure to innovate in order to find solutions.
6. Why, according to some people is 'jugaad' not the answer to India's problems?
- (A) Many a time this methodology backfires leading to further complications
 - (B) 'Jugaad', provides only cheap solutions to all problems
 - (C) It is reactive and not a proactive and organized method of finding solutions to problems.
 - (D) It can provide solutions to only simple solutions and not to complex ones.
7. Which one of the following is/are true about the cell phone?
- (i) The innovation of the cell phone required investment of huge capital
 - (ii) The cell phone, when invented was meant to be affordable to all
 - (iii) The cell phone was made available to the public in a very short time from its ideation
- (A) only (i)
 - (B) only (i) and (ii)
 - (C) only (ii) and (iii)
 - (D) All of the above
8. What does the author mean by 'frugal impact on the earth's resources' as given in the passage?
- (A) The damage to the environment should be assessable.
 - (B) Minimum usage of the earth's natural resources.
 - (C) Minimum impact on the environment in terms of pollution.
 - (D) The impact on the environment should be such that it is reversible.

Direction (Qn. Nos. 9 – 20): Choose the word which is most similar in meaning to the words given in capital letters.

9. DEPLORE

- (A) lose heart (B) entreat
(C) . regret (D) malign

10. MOTIVATION

- (A) inducement (B) emotion
(C) ambition (D) incitement

11. RESIDUE

- (A) nothing (B) recede
(C) remainder (D) little

12. PERPETUAL

- (A) perfect (B) confused
(C) never ending (D) seasonal

13. ASSENT

- (A) climb (B) confirm
(C) answer (D) agree

14. DEFIANCE

- (A) insult (B) denial
(C) degradation (D) resistance

15. EMANCIPATE

- (A) liberate (B) release
(C) acquit (D) unchain

16. RESTIVE

- (A) resting (B) restful
(C) restless (D) arresting

17. STRAIT

- (A) not crooked (B) a narrow street
(C) channel of water (D) straightforward

18. JOCUND

- | | |
|--------------|---------------|
| (A) flimsy | (B) cruel |
| (C) cheerful | (D) laughable |

19. BOURGEOIS

- | | |
|--------------|------------------|
| (A) animated | (B) aristocratic |
| (C) lively | (D) |

20. COMPENDIUM

- | | |
|----------------|-------------|
| (A) collection | (B) summary |
| (C) reference | (D) index |

Direction (Qn. Nos. 21 – 27) : Choose the alternative which best expresses the meaning of the idiom/phrase given below.

21. To have an axe to grind

- | | |
|----------------------------|------------------------------------|
| (A) to criticize someone | (B) to fail to arouse interest |
| (C) to work for both sides | (D) to have a selfish end to serve |

22. A hornet's nest

- | | |
|----------------------------|-----------------------------|
| (A) A comfortable position | (B) An unpleasant situation |
| (C) Among thorns | (D) A dilemma |

23. To roll out the red carpet

- | | |
|--------------------------|------------------------------|
| (A) to buy a gift | (B) to give a warning signal |
| (C) to decorate the room | (D) to give a grand welcome |

24. To put his foot down

- | | |
|-------------|------------------|
| (A) concede | (B) not to yield |
| (C) resign | (D) withdraw |

25. An apple of discord

- | | |
|-------------------------------|--------------------------|
| (A) sour apple | (B) a quarrel |
| (C) The cause of a contention | (D) a fight for an apple |

26. At the eleventh hour

- | | |
|----------------------------|------------------------|
| (A) arrive late | (B) at the last hour |
| (C) the last possible time | (D) at eleven o' clock |

27. Much ado about nothing
- (A) talk about nothing
 - (B) a Play by Shaw
 - (C) to make a fuss over a small matter
 - (D) to make a noise

Direction (Qn. Nos. 28 – 33) : Select the word that is most closely opposite in meaning to the capitalized word.

28. GRANDIOSE
- (A) modest
 - (B) egoistic
 - (C) brilliant
 - (D) pretentious
29. ABSTINENCE
- (A) indulgence
 - (B) self-denial
 - (C) devotion
 - (D) afraid
30. DISCORDANT
- (A) harsh
 - (B) different
 - (C) harmonious
 - (D) separate
31. DISSEMINATED
- (A) network
 - (B) interact
 - (C) acquaint
 - (D) concentrated
32. AMBIVALENT
- (A) submissive
 - (B) decisive
 - (C) misleading
 - (D) suspect
33. SEGREGATE
- (A) abolish
 - (B) confuse
 - (C) compile
 - (D) darken

Direction (Qn. Nos. 34 – 38) : In the following group of words, choose the word which is misspelt.

- 34.
- (A) neighbour
 - (B) nektar
 - (C) necessary
 - (D) nemesis

35. (A) commend (B) amend
(C) assend (D) comprehend
36. (A) agnostic (B) assetic
(C) sceptic (D) prolific
37. (A) measurement (B) concerned
(C) contraversial (D) contemporary
38. (A) delirious (B) delusive
(C) hefty (D) heinous

Direction (Qn. Nos. 39 – 46) : Study the 10 statements given below and answer the questions.

- i. Six businessmen from six different nations are staying in different rooms in succession in the same row in a hotel.
 - ii. Each of them owns a different number of cars and has donated to different number of institutions during the last year.
 - iii. The businessman in Room no. 102 owns twice as many as the number of cars owned by the businessmen who has donated to 8 institutions in the last year.
 - iv. The businessman from Uruguay and the businessman in Room no. 106 together own 40 cars in total.
 - v. The businessman from Argentina owns 8 cars less than the businessman from England but donated to 10 more institutions in the last year.
 - vi. Four times the number of cars owned by the businessman in Room no. 104 is lesser than the number of institutions to which he has donated in the last year.
 - vii. The businessman in Room No. 103 owns 12 cars and donated to 8 institutions in the last year.
 - viii. The businessman who owns 16 cars donated to 24 institutions in the last year.
 - ix. The businessman in Room no. 105 owns 8 cars and donated to 2 institutions less than those donated by the businessman from Canada in the last year.
 - x. The Brazilian businessman is staying two rooms ahead of the English businessman who is staying two rooms ahead of the Canadian businessman.
39. In which room is Brazilian businessman staying?
- (A) Room no. 102 (B) Room no. 103
(C) Room no. 104 (D) Room no. 105
40. What is the number of institutions to which the Argentinean businessman donated in the last year?
- (A) 8 (B) 3
(C) 18 (D) 24

41. The businessman of which country is staying in Room no. 106?
- (A) Argentina (B) Canada
(C) Uruguay (D) Germany
42. The businessman of which country has donated to 24 institutions in the last year?
- (A) Argentina (B) Uruguay
(C) Canada (D) Germany
43. The businessman of which country owns the highest number of cars?
- (A) Argentina (B) Uruguay
(C) Germany (D) Brazil
44. How many cars are owned by the English businessman?
- (A) 8 (B) 12
(C) 4 (D) 20
45. How many institutions did the businessman in Room 102 donate to?
- (A) 8 (B) 18
(C) 24 (D) Cannot be determined
46. For how many rooms can the nationality, number of cars and number of institutions donated to by the businessmen be accurately determined?
- (A) One (B) Two
(C) Three (D) Four

Direction (Qn. Nos. 47 – 53) : During the State Youth Festival, six competitions were conducted. The Youth Festival was inaugurated on 19th April, Wednesday and continued till 26th April. In the span of 8 days, six competitions namely debate, folk dance, mono act, street play, kathakali and group song were organised along with various other cultural programs. The following information are available

- i. Only one competition was held in a day
 - ii. Kathakali was not conducted on the closing day
 - iii. Mono Act was conducted on the day prior to the debate competition
 - iv. Group song was conducted neither on Wednesday nor on Saturday.
 - v. None of the competition was conducted on Thursday and Sunday
 - vi. Street play was held on Monday
 - vii. There was a gap of two days between Debate competition and Group song competition
47. Which competition exactly precedes the Street play competition?
- (A) Debate (B) Kathakali
(C) Folk Dance (D) Mono Act

48. Mono Act follows which competition?
- (A) Kathakali (B) Debate
(C) Street Play (D) Group Song
49. The Youth Festival started with which competition?
- (A) Group Song (B) Mono Act
(C) Kathakali (D) Debate
50. How many days gap is there between Kathakali and Group Song competitions?
- (A) One (B) Two
(C) Four (D) Five
51. Which pair of competitions are held on Wednesday?
- (A) Mono Act and Debate (B) Kathakali and Folk Dance
(C) Street Play and Debate (D) Group song and Folk dance
52. Which competitions are held on three consecutive days?
- (A) Kathakali, Debate and Mono Act
(B) Mono act, debate and Folk dance
(C) Group song, Kathakali and Street play
(D) Street play, Group song and Folk dance
53. Which competition is held exactly 4 days after Mono Act?
- (A) Group Song (B) Folk Dance
(C) Kathakali (D) Debate

Direction (Qn. Nos. 54 – 58) : Some information is provided in the paragraph below. Answer the questions based on this information.

Paul is in charge of seating the speakers at a table. In addition to the moderator, there will be a pilot, an attorney, a writer and an exporter. The speakers are G, H, J, K and L.

- i. The moderator must sit in the middle seat. i.e. Seat no. 3
- ii. The attorney cannot sit next to the explorer
- iii. L is the pilot
- iv. The writer and attorney sit on either side of the moderator.
- v. H who is not the moderator, sits between J and K.
- vi. The moderator does not sit next to J or L
- vii. G who is the attorney, sits in Seat no. 4

54. Who is the Moderator?

- | | |
|-------|-------|
| (A) H | (B) K |
| (C) J | (D) G |

55. Where does J sit?

- | | |
|------------|------------|
| (A) Seat 1 | (B) Seat 2 |
| (C) Seat 3 | (D) Seat 4 |

56. Who sits in seat 5?

- | | |
|-------|-------|
| (A) K | (B) L |
| (C) H | (D) G |

57. Who is the writer?

- | | |
|-------|-------|
| (A) G | (B) K |
| (C) J | (D) H |

58. Who sits adjacent to the pilot?

- | | |
|-------|-------|
| (A) G | (B) H |
| (C) J | (D) K |

Direction (Qn. Nos. 59 – 64) : Answer the questions based on the table below.

Table: Production of major metals and minerals (Million Tonnes)

Year	Aluminium	Coal	Copper	Gold	Iron Ore
2005	69	91	71	15	100
2006	75	88	75	18	120
2007	81	97	79	21	102
2008	98	107	88	25	131
2009	93	110	92	24	143
2010	99	116	97	20	154
2011	105	122	103	25	163

59. Which mineral/metal witnessed the highest growth rate in production from 2005 to 2011?
- (A) Iron Ore (B) Aluminium
(C) Gold (D) Copper
60. Which year witnessed the highest absolute increase in total production of minerals and metals?
- (A) 2006 (B) 2008
(C) 2010 (D) 2011
61. Highest growth rate in production is recorded in
- (A) Iron ore in 2008 (B) Gold in 2011
(C) Aluminium in 2008 (D) Gold in 2006
62. If annual average growth rate in production exhibited during 2006 to 2011 continues for the next 4 years, what will be the approximate production of aluminium in the year 2015?
- (A) 125 million tonnes (B) 140 million tonnes
(C) 155 million tonnes (D) 160 million tonnes
63. In which year is the proportion of copper production in the total mineral and metal production the highest?
- (A) 2010 (B) 2008
(C) 2009 (D) 2007
64. Which mineral/metal witnessed the minimum growth rate in production from 2006 to 2010?
- (A) Aluminium (B) Coal
(C) Copper (D) Gold

Direction (Qn. Nos. 65 – 69) : Study the following table and answer the following questions.

Expenditures of a Company (in Lakhs Rupees) per annum over the years

Year	Item of expenditure				
	Salary	Fuel & Transport	Bonus	Interest on Loans	Taxes
1998	288	98	3.00	23.4	83
1999	342	112	2.52	32.5	108
2000	324	101	3.84	41.6	74
2001	336	133	3.68	36.4	88
2002	420	142	3.96	49.4	98

65. What is the average amount of interest per year which the company had to pay during this period?
- (A) Rs. 32.43 lakhs (B) Rs. 33.72 lakhs
(C) Rs. 34.18 lakhs (D) Rs. 36.66 lakhs
66. The total amount of bonus paid by the company during the given period is approximately what percent of the total amount of salary paid during this period?
- (A) 0.1% (B) 0.5%
(C) 1% (D) 1.25%
67. Total expenditure on all these items in 1998 was approximately what percent of the total expenditure in 2002?
- (A) 62% (B) 66%
(C) 69% (D) 71%
68. The total expenditure of the company over these items during the year 2000 is?
- (A) Rs. 544.44 lakhs (B) Rs. 501.11 lakhs
(C) Rs. 446.46 lakhs (D) Rs. 478.87 lakhs
69. The ratio between the total expenditure on Taxes for all the years and the total expenditure on Fuel and Transport for all the years respectively is approximately?
- (A) 4:7 (B) 10:13
(C) 15:18 (D) 5:8

Direction (Qn. Nos. 70 – 75) : Study the following table and answer the following questions.

A school has four sections A, B, C, D of Class IX students. The results of half yearly and annual examinations are shown in the table given below.

Result	No of Students			
	A	B	C	D
Students failed in both Exams	28	23	17	27
Students failed in half-yearly but passed in Annual Exams	14	12	8	13
Students passed in half-yearly but failed in Annual Exams	6	17	9	15
Students passed in both Exams	64	55	46	76

70. If the number of students passing an examination be considered a criteria for comparison of difficulty level of two examinations, which of the following statements is true in this context?
- (A) Half yearly examinations were more difficult.
 (B) Annual examinations were more difficult.
 (C) Both the examinations had almost the same difficulty level.
 (D) The two examinations cannot be compared for difficulty level.
71. How many students are there in Class IX in the school?
- (A) 336 (B) 189
 (C) 335 (D) 430
72. Which section has the maximum pass percentage in at least one of the two examinations?
- (A) A Section (B) B Section
 (C) C Section (D) D Section
73. Which section has the maximum success rate in annual examination?
- (A) A Section (B) B Section
 (C) C Section (D) D Section
74. Which section has the minimum failure rate in half yearly examination?
- (A) A section (B) B section
 (C) C section (D) D section
75. What percentage of class IX students passed in both examinations?
- (A) 53% (B) 56%
 (C) 58% (D) 60%

76. The total number of integer pairs (x,y) satisfying the equation $x-y = xy$ is
- (A) 0 (B) 1
(C) 2 (D) 5
77. The equation $7^{x-1} + 11^{x-1} = 170$ has
- (A) no solution (B) one solution
(C) two solutions (D) three solutions
78. A train 125 m long passes a man, running at 5 km/hr in the same direction in which the train is going, in 10 seconds. The speed of the train is
- (A) 45 km/hr (B) 50 km/hr
(C) 54 km/hr (D) 55 km/hr
79. Two ships are sailing in the sea on the two sides of a lighthouse. The angle of elevation of the top of the lighthouse is observed from the ships are 30° and 45° respectively. If the lighthouse is 100 m high, the distance between the two ships is:
- (A) 173 m (B) 200 m
(C) 273 m (D) 300 m
80. The angle of elevation of the sun, when the length of the shadow of a tree $\sqrt{3}$ times the height of the tree, is:
- (A) 30° (B) 45°
(C) 60° (D) 90°
81. A person invested an amount of Rs. 13,900 divided in two different schemes A and B at the simple interest rate of 14% p.a. and 11% p.a. respectively. If the total amount of simple interest earned in 2 years be Rs. 3508, what was the amount invested in Scheme B?
- (A) Rs. 6400 (B) Rs. 6500
(C) Rs. 7200 (D) Rs. 7500
82. Alfred buys an old scooter for Rs. 4700 and spends Rs. 800 on its repairs. If he sells the scooter for Rs. 5800, his gain percent is:
- (A) $(32/7)\%$ (B) $(60/11)\%$
(C) 10% (D) 12%
83. In a certain store, the profit is 320% of the cost. If the cost increases by 25% but the selling price remains constant, approximately what percentage of the selling price is the profit?
- (A) 30% (B) 70%
(C) 100% (D) 250%

84. A vendor bought toffees at 6 for a rupee. How many for a rupee must he sell to gain 20%?
- (A) 3 (B) 4
(C) 5 (D) 6
85. Two students appeared at an examination. One of them secured 9 marks more than the other and his marks was 56% of the sum of their marks. The marks obtained by them are:
- (A) 39, 30 (B) 41, 32
(C) 42, 33 (D) 43, 34
86. If $A = x\%$ of y and $B = y\%$ of x , then which of the following is true?
- (A) A is smaller than B.
(B) A is greater than B
(C) $A=B$.
(D) If x is smaller than y , then A is greater than B, else B is greater than A
87. The average weight of 8 person's increases by 2.5 kg when a new person comes in place of one of them weighing 65 kg. What might be the weight of the new person?
- (A) 76 kg (B) 76.5 kg
(C) 80 kg (D) 85 kg
88. A right triangle with sides 3 cm, 4 cm and 5 cm is rotated the side of 3 cm to form a cone. The volume of the cone so formed is
- (A) $12\pi \text{ cm}^3$ (B) $15\pi \text{ cm}^3$
(C) $16\pi \text{ cm}^3$ (D) $20\pi \text{ cm}^3$
89. The largest 4 digit number exactly divisible by 88 is
- (A) 9944 (B) 9768
(C) 9988 (D) 8888
90. The least number, which when divided by 12, 15, 20 and 54 leaves in each case a remainder of 8 is
- (A) 504 (B) 536
(C) 544 (D) 548
91. The price of 10 chairs is equal to that of 4 tables. The price of 15 chairs and 2 tables together is Rs. 4000. The total price of 12 chairs and 3 tables is
- (A) Rs. 3500 (B) Rs. 3750
(C) Rs. 3840 (D) Rs. 3900

92. Running at the same constant rate, 6 identical machines can produce a total of 270 bottles per minute. At this rate, how many bottles could 10 such machines produce in 4 minutes?
- (A) 648 (B) 1800
(C) 2700 (D) 10800
93. Which of the following statements is not correct?
- (A) $\log_{10} 10 = 1$ (B) $\log(2 + 3) = \log(2 \times 3)$
(C) $\log_{10} 1 = 0$ (D) $\log(1 + 2 + 3) = \log 1 + \log 2 + \log 3$
94. A boat running upstream takes 8 hours 48 minutes to cover a certain distance, while it takes 4 hours to cover the same distance running downstream. What is the ratio between the speed of the boat and speed of the water current respectively?
- (A) 2 : 1 (B) 3 : 2
(C) 8 : 3 (D) Cannot be determined
95. Find the odd man out : 331, 482, 551, 263, 383, 362, 284
- (A) 263 (B) 383
(C) 331 (D) 551
96. Two dice are thrown simultaneously. What is the probability of getting two numbers whose product is even?
- (A) $1/2$ (B) $3/4$
(C) $3/8$ (D) $5/16$
97. A and B take part in 100 m race. A runs at 5 kmph. A gives B a start of 8 m and still beats him by 8 seconds. The speed of B is
- (A) 5.15 kmph (B) 4.14 kmph
(C) 4.25 kmph (D) 4.4 kmph
98. A vessel is filled with liquid, 3 parts of which are water and 5 parts syrup. How much of the mixture must be drawn off and replaced with water so that the mixture may be half water and half syrup?
- (A) $1/3$ (B) $1/4$
(C) $1/5$ (D) $1/7$
99. Three pipes A, B and C can fill a tank from empty to full in 30 minutes, 20 minutes, and 10 minutes respectively. When the tank is empty, all the three pipes are opened. A, B and C discharge chemical solutions P, Q and R respectively. What is the proportion of the solution R in the liquid in the tank after 3 minutes?
- (A) $5/11$ (B) $6/11$
(C) $7/11$ (D) $8/11$

100. From a group of 7 men and 6 women, five persons are to be selected to form a committee so that at least 3 men are there on the committee. In how many ways can it be done?
- (A) 564 (B) 645
(C) 735 (D) 756
101. In how many different ways can the letters of the word 'LEADING' be arranged in such a way that the vowels always come together?
- (A) 360 (B) 480
(C) 720 (D) 5040
102. An error 2% in excess is made while measuring the side of a square. The percentage of error in the calculated area of the square is
- (A) 2% (B) 2.02%
(C) 4% (D) 4.04%
103. The angle between the minute hand and the hour hand of a clock when the time is 8.30, is
- (A) 80° (B) 75°
(C) 60° (D) 105
104. A can do a work in 15 days and B in 20 days. If they work on it together for 4 days, then the fraction of the work that is left is
- (A) $\frac{1}{4}$ (B) $\frac{1}{10}$
(C) $\frac{7}{15}$ (D) $\frac{8}{15}$
105. A, B and C can do a piece of work in 20, 30 and 60 days respectively. In how many days can A do the work if he is assisted by B and C on every third day?
- (A) 12 days (B) 15 days
(C) 16 days (D) 18 days
106. Father is aged three times more than his son Ronit. After 8 years, he would be two and a half times of Ronit's age. After further 8 years, how many times would he be of Ronit's age?
- (A) 2 times (B) 2.5 times
(C) 2.75 times (D) 3 times
107. The sum of ages of 5 children born at the intervals of 3 years each is 50 years. What is the age of the youngest child?
- (A) 4 years (B) 7 years
(C) 10 years (D) None of the above

108. A train can travel 50% faster than a car. Both start from point A at the same time and reach point B 75 kms away from A at the same time. On the way, however, the train lost about 12.5 minutes while stopping at the stations. The speed of the car is
- (A) 100 kmph (B) 110 kmph
(C) 120 kmph (D) 130 kmph
109. It takes eight hours for a 600 km journey, if 120 km is done by train and the rest by car. It takes 20 minutes more, if 200 km is done by train and the rest by car. The ratio of the speed of the train to that of the cars is
- (A) 2 : 3 (B) 3 : 2
(C) 3 : 4 (D) 4 : 3
110. The difference between simple and compound interests compounded annually on a certain sum of money for 2 years at 4% per annum is Re. 1. The sum (in Rs.) is
- (A) 625 (B) 630
(C) 640 (D) 650
111. In a shower, 5 cm of rain falls. The volume of water that falls on 1.5 hectares of ground is
- (A) 75 cu. m (B) 750 cu. m
(C) 7500 cu. m (D) 75000 cu. m
112. The difference between a two-digit number and the number obtained by interchanging the positions of its digits is 36. What is the difference between the two digits of that number?
- (A) 3 (B) 4
(C) 9 (D) Cannot be determined
113. The product of two numbers is 120 and the sum of their squares is 289. The difference between the numbers is
- (A) 4 (B) 5
(C) 6 (D) 7
114. The rational number for recurring decimal 0.125125.... is
- (A) $1.25/9$ (B) $12.5/99$
(C) $125/999$ (D) None of the above
115. In a camp, there is a meal for 120 men or 200 children. If 150 children have taken the meal, how many men will be catered to with remaining meal?
- (A) 20 (B) 30
(C) 40 (D) 50

116. If $\log\left(\frac{a}{b}\right) + \log\left(\frac{b}{a}\right) = \log(a+b)$, then
- (A) $a+b=1$ (B) $a-b=1$
(C) $a=b$ (D) $a^2-b^2=1$
117. A shopkeeper expects a gain of 22.5% on his cost price. If in a week, his sale was of Rs. 392, what was his profit?
- (A) Rs. 18.20 (B) Rs. 70
(C) Rs. 72 (D) Rs. 88.25
118. In a group of 6 boys and 4 girls, four children are to be selected. In how many different ways can they be selected such that at least one boy should be there?
- (A) 159 (B) 194
(C) 205 (D) 209
119. How many 3-digit numbers can be formed from the digits 2, 3, 5, 6, 7 and 9, which are divisible by 5 and none of the digits is repeated?
- (A) 5 (B) 10
(C) 15 (D) 20
120. A, B and C jointly thought of engaging themselves in a business venture. It was agreed that A would invest Rs. 6500 for 6 months, B, Rs. 8400 for 5 months and C, Rs. 10,000 for 3 months. A wants to be the working member for which, he was to receive 5% of the profits. The profit earned was Rs. 7400. Calculate the share of B in the profit.
- (A) Rs. 1900 (B) Rs. 2660
(C) Rs. 2800 (D) Rs. 2840
121. What is the version number of the latest Android “Nougat”?
- (A) 5.0 (B) 6.0
(C) 7.0 (D) 8.0
122. How many satellites were launched by PSLV-C37, making a record for India in space history?
- (A) 101 (B) 102
(C) 103 (D) 104
123. Which of these is not an OS regarding IOT?
- (A) Zephyr (B) RIOT
(C) Brillo (D) Windows vista

124. Which company is responsible for introducing self-driving bicycle?
- (A) Yahoo (B) Amazon
(C) Google (D) Microsoft
125. Which product is not developed by Apple Corporation?
- (A) iMac (B) iPod
(C) IMAX (D) iPhone
126. How many computer languages are in use?
- (A) 5000 (B) 20
(C) 50 (D) 2000
127. What technology enables the analysis of data from multiple databases simultaneously?
- (A) CDMA (B) OLAP
(C) HDMI (D) WDDM
128. What is name of the latest released version of mac OS?
- (A) Sierra (B) Snow Leopard
(C) El Capitan (D) Yosemite
129. Which of the following is not a VR headset?
- (A) Oculus Rift (B) Playstation VR
(C) HTC Vive (D) Google glasses
130. Out of the following, which is the phone by google?
- (A) Pixel (B) LYF
(C) Gionee (D) Spice
131. What is Apache Hadoop used for?
- (A) Gaming (B) Big Data Analysis
(C) Software Testing (D) Photo viewer
132. Which of the following is used to connect all computer systems within a building?
- (A) Internet (B) MAN
(C) Intranet (D) Network

133. What is full form of Li-Fi?
- (A) Linear-Fidelity (B) Little-Fidelity
(C) Light-Fidelity (D) Line-Fidelity
134. Which of the following companies is associated with the concept of electric cars?
- (A) Maruti (B) Tesla
(C) Hyundai (D) Nissan
135. What is the name of Personal assistant developed by Microsoft?
- (A) Alex (B) Mike
(C) Cortana (D) Mary
136. 'High performance delivered' is the punch line of which company?
- (A) Crompton Greaves (B) MRF
(C) CEAT (D) Accenture
137. What products does Pepperfry.com sell online?
- (A) Furniture (B) Movie tickets
(C) Food discovery (D) Grocery
138. Which brand sued makers of Jolly LLB 2 for projecting their brand in poor light?
- (A) Zandu Balm (B) Bata
(C) Coca Cola (D) Hero motorcycle
139. The new US Secretary of State in the Trump administration is REX W. TILLERSON. He is the CEO of the Fortune 500 company named
- (A) Shell (B) Cardinal Healthcare
(C) Bank of America (D) Exxon Mobil
140. Identify the branding expert who is credited with the tagline "Sunday hoyo Monday, rozkhaoande". He passed away recently.
- (A) Prasoon Joshi (B) R Balakrishnan
(C) Anand Halve (D) AlyquePadamsee
141. Who is the current chairperson of India's largest media group, Bennett Coleman & Co. Ltd., which owns the Times of India?
- (A) SulajjaFirodiaMotwani (B) Indu Jain
(C) Rekha Menon (D) Ekta Kapoor

142. As per President Donald Trump's executive order, immigration from 7 countries to the US has been put on hold. Which of these countries did Late Steve Job's father hail from?
- (A) Jordan (B) Libya
(C) Syria (D) Iran
143. Which company is the name 'Travis Kalanick' associated with?
- (A) Ola cabs (B) Uber
(C) Oyo (D) Paytm
144. This iconic brand has been sold to French company Peugeot SA in 2017. Which brand is it?
- (A) Ambassador (B) Mini
(C) Contessa (D) Beetle
145. Which of the following American companies is NOT headed by a person of Indian origin?
- (A) Microsoft (B) MasterCard
(C) Adobe (D) Yahoo
146. India's GDP growth rate is around
- (A) 4% (B) 5%
(C) 9% (D) 7%
147. India's most valuable company in 2016 based on market capitalization is
- (A) Infosys (B) HDFC Bank
(C) TCS (D) Reliance Industries
148. Which of the following companies DO NOT have a presence in baby care business?
- (A) HUL (B) Himalaya
(C) Jyothi Laboratories (D) Dabur
149. The company famous for popularising the trend of aerial ads using blimps
- (A) Michelin (B) Goodyear
(C) Anheuser-Busch (D) Google
150. Which company is Project Loon associated with?
- (A) Cartoon Network (B) Google
(C) CNN (D) BBC
