622 - M VOC TECHNOLOGY AND MANAGEMENT CONSULTING (FINAL)

- 1. What is the value of three-seventh of 35 percent of 420?
 - (A) 52
 - (B) 65
 - (C) 63
 - (D) 56
- 2. The total cost of the 12 kg of rice is Rs. 432 and the total cost of the 15 kg of pulse is Rs. 675. What is the ratio between the cost of the 2 kg of pulse and one kg of rice respectively?
 - (A) 8:7
 - (B) 7:5
 - (C) 8:5
 - (D) 5:2
- 3. Tina sold an item for Rs. 1500 at a profit of 25%. At what cost will she have to sell it to get a profit of 45%?
 - (A) 1740
 - (B) 1704
 - (C) 1750
 - (D) 1760
- 4. The compound interest on a sum at a certain rate of interest for two years is Rs. 5520. If the same sum is lent at the same rate of simple interest, then the interest for three years is Rs. 7200. Find the rate of interest.
 - (A) 20%
 - (B) 25%
 - (C) 32%
 - (D) 30%
- 5. The sum of the digits in a two-digit number is 9. When the digits are interchanged the number is increased by 9. Find the number.
 - (A) 36
 - (B) 54
 - (C) 45
 - (D) 63

- 6. The least number which when divided by 2, 3, 4, 5 and 6 leaves the remainder 1 in each case. If the same number is divided by 7, it leaves no remainder. The number is
 - (A) 371
 - 231 (B)
 - (C) 441
 - (D) 301
- If 1 is added to the denominator of a fraction, it becomes $\binom{1}{2}$ and if 1 is added to the 7. numerator, the fraction becomes 1. The fraction is
 - (A) $\frac{1}{4}$
 - (B) $\frac{2}{3}$
 - (C) $\frac{7}{10}$
 - (D) $\frac{5}{8}$

Which of the following number replaces the question mark? 8.

> 7 8 18 1165 57 (A) 212 (B) 232 (C) 217 (D) 247

9. Which of the following options will replace the question mark?

> 3.9 5.1 7.5 11.1 ? 21.9 15.4 (A) **(B)** 16.1 (C) 15.9 14.8 (D)

10. Which of the following options will replace the question mark?

$$(\sqrt{5} - \sqrt{6})^2 + (\sqrt{3} + \sqrt{10})^2 = (?)^3 - 40$$

(A) 4
(B) 6

- (B) 6
- (C) 8
- (D) 3

11. Which of the following options will replace the question mark?

 $24 \times 114 \div 19 - ? = 312 \div 13$

- (A) 120
- (B) 122
- (C) 130
- (D) 124

12. Which of the following options will replace the question mark?

 $(564\% \text{ of } 212) \div 394 = ?$

- (A) 3
- (B) 6
- (C) 9
- (D) 12
- 13. The H.C.F of three numbers is 12. If the three numbers are in the ratio of 1 : 2 : 3, the numbers are
 - (A) 14, 28, 42
 - (B) 15, 30, 45
 - (C) 12, 24, 36
 - (D) 24, 48, 72
- 14. If the total cost of four tube lights and three bulbs is Rs. 260 and the ratio between the cost of a tube light and a bulb is 5 : 2 respectively, what is the total cost of one tube light and six bulbs?
 - (A) 210
 - (B) 180
 - (C) 130
 - (D) 170

15.

If x = 3 - a and y = 4a + 13, then for what value of a, x and y are equal?

- (A) –4
- (B) –7
- (C) –5
- (D) –2

- 16. If 15% of x = 20% of y, then x : y is
 - (A) 4:3
 - (B) 3:4
 - (C) 16:17
 - (D) 17:16

17. For what value of *K*, the system of equations Kx + 2y = 2 and 3x + y = 1 will be coincident?

- (A) 3
- (B) 5
- (C) 4
- (D) 6
- 18. In the figure given, find the value of x.



- (A) 60°
- (B) 36°
- (C) 40° (D) 130°

19. Find the sum and product of the roots of the equation $\frac{2}{x^2} - \frac{5}{x} + 2 = 0$

(A)
$$\frac{3}{4}$$
, 2
(B) $\frac{5}{2}$, 1
(C) $\frac{1}{4}$, -2
(D) $\frac{2}{3}$, -1

- 20. A radio is listed at Rs. 500 with a discount of 10%. What additional discount must be offered to the customer to bring the net price to Rs. 423?
 - (A) 8%
 - (B) 9%
 - (C) 11%
 - (D) 6%
- 21. If the AM and GM of two numbers are 13 and 12 respectively, find the numbers.
 - (A) 12, 12
 - (B) 36, 4
 - (C) 16, 9
 - (D) 8, 18

22. Find the values of x and y, if (x + y), (2x + 1), (3x - 1) are in AP and x, xy and (3x + 10y) are in GP.

- (A) 5, 3
- (B) 5, 2
- (C) 3, 2
- (D) 3,4

23. If $\tan (A + B) = \sqrt{3}$ and $\tan B = 1$, (A and B are acute angles) find the value of A

- (A) 30°
- (B) 15°
- (C) 45°
- (D) 60°

24. What value will be obtained if the square of 22 is subtracted from the cube of 12?

- (A) 1344
- (B) 1244
- (C) 1454
- (D) 1354

25. Manisha runs 435 m every day. In how many days will she cover 5.22 km?

- (A) 18
- (B) 12
- (C) 9
- (D) 24

- 26. A man walks 30 km towards East, then turning to right he walks 30 km. Then turning to his left, he again walks 20 km. Again, turning to his left, he walks 30 km. How far is he from his starting point?
 - (A) 60 km
 - (B) 50 km
 - (C) 100 km
 - (D) 80 km
- 27. A kite is flying at a height of 60 m above the level ground. The inclination of the string with the ground is 60°. Find the length of the string.
 - (A) $20\sqrt{3}$
 - (B) $18\sqrt{3}$
 - (C) $36\sqrt{3}$
 - (D) $40\sqrt{3}$
- 28. What is the compound interest on Rs. 2500 for 2 years at rate of interest 4% per annum?
 - (A) Rs. 180
 - (B) Rs. 204
 - (C) Rs. 210
 - (D) Rs. 220
- 29. A mother is twice as old as her son. If 20 years ago, the age of the mother was 10 times the age of the son, what is the present age of the mother?
 - (A) 38 years
 - (B) 40 years
 - (C) 43 years
 - (D) 45 years
- 30. The speed of a boat in still water is 5 km/hr. If the speed of the boat against the stream is 3 km/hr, what is the speed of the stream?
 - (A) 1.5 km/hr
 - (B) 2 km/hr
 - (C) 2.5 km/hr
 - (D) 1 km/hr

31. Complete the series:

2, 5, 9, 19, 37,

- (A) 76
- (B) 74
- (C) 75
- (D) 72

32. Find the odd man out.

1, 8, 27, 64, 125, 196, 216, 343

- (A) 196
- **(B)** 1
- (C) 64
- (D) 216
- 33. Two trains running in opposite directions cross a man standing on the platform in 27 seconds and 17 seconds respectively and they cross each other in 23 seconds. The ratio of their speeds is
 - (A) 1:3
 - (B) 3:2
 - (C) 3:4
 - (D) 4:3
- 34. Which one of the following is **NOT** a prime number?
 - (A) 31
 - (B) 61
 - (C) 71
 - (D) 91

35. If January 1, 1996, was Monday, what day of the week was January 1, 1997?

- (A) Thursday
- (B) Wednesday
- (C) Friday
- (D) Sunday

- 36. A man can row a boat at a speed of 20 km/hr in still water. If the speed of the stream is 5 km/hr, in what time he can row a distance of 75 km downstream?
 - (A) 1.5 hours
 - (B) 2 hours
 - (C) 2.5 hours
 - (D) 3 hours
- 37. An accurate clock indicates 8 O' clock in the morning. Through how many degrees the hour hand turns when the clock indicates 3 O' clock in the afternoon?
 - (A) 210°
 - (B) 200°
 - (C) 190°
 - (D) 185°
- 38. How much time will take for an amount of Rs. 450 to yield Rs. 81 as interest at 4.5% per annum of simple interest?
 - (A) 4 years
 - (B) 2.5 years
 - (C) 3.5 years
 - (D) 2 years
- 39. If 0.75 : x :: 5 : 8, then x is equal to
 - (A) 1.12
 - (B) 1.16
 - (C) 1.20
 - (D) 1.30

40. A tank is $\frac{2}{5}$ full. If 16 litres of water is added to the tank, it becomes $\frac{6}{7}$ full. The capacity of the tank is

- (A) 28 litres
- (B) 32 litres
- (C) 35 litres
- (D) 42 litres

- 41. Two dice are tossed. The probability that the total score is a prime number is
 - (A) $\frac{5}{12}$ (B) $\frac{1}{6}$ (C) $\frac{1}{2}$ (D) $\frac{7}{9}$
- 42. A rectangular block 6 cm by 12 cm by 15 cm is cut up into an exact number of equal cubes. Find the least possible number of cubes.
 - (A) 30
 - (B) 40
 - (C) 10
 - (D) 20
- 43. A shopping mall has a rectangle shaped children's play area. The play area measures 30 m × 20 m. Laying of tiles would cost Rs. 60 per sq.m. Find the total cost.
 - (A) Rs. 54000
 - (B) Rs. 24000
 - (C) Rs. 76367.4
 - (D) Rs. 36000
- 44. Out of 7 consonants and 4 vowels, how many words of 3 consonants and 2 vowels can be formed?
 - (A) 24400(B) 21300
 - (C) 210
 - (D) 25200
- 45. 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) 720
 - (B) 520
 - (C) 700
 - (D) 750

- 46. If the tenth day of a month is three days earlier than Sunday, what day will be on the second day of that month?
 - (A) Tuesday
 - (B) Friday
 - (C) Wednesday
 - (D) Thursday
- 47. If symbol "@" means ×, "&" means +, "#" means / and "\$" means –, then 10 & 15 @ 20 # 5 \$ 10
 - (A) 50
 - (B) 60
 - (C) 70
 - (D) 80
- 48. In 10 years, Alok will be twice as old as Babul was 10 years ago. If Alok is now 9 years older than Babul, the present age of Babul is
 - (A) 19
 - (B) 29
 - (C) 39
 - (D) 49
- 49. In an examination, a pupil's average mark for different papers was 63. If he had obtained 20 more marks for his Geography paper and 2 more marks for his History paper, his average mark would have been 65. How many papers were there in the examination?
 - (A) 10
 - (B) 11
 - (C) 12
 - (D) 13
- 50. In how many different ways can the letters of the word 'VIRTUAL' be arranged among themselves?
 - (A) 2520
 - (B) 3080
 - (C) 5040
 - (D) 4930

Directions: Answer the given questions from the following table.

Year	Company							
	Р	Q	R	S	Т			
2014	176	187	289	133	160			
2015	213	204	283	156	177			
2016	255	132	242	171	189			
2017	123	139	189	185	234			
2018	165	219	137	141	188			

The number of employees who joined five companies during five years.

- 51. The number of employees who joined company R in 2016 is what percent more than the total number of employees who joined company T in 2014?
 - (A) 48 ¹/₂
 - (B) 55 ³⁄₄
 - (C) 52 ¹/₄
 - (D) 51 ¹/₄
- 52. What is the difference between the total number of employees who joined company Q in 2015 and 2018 together and the total number of employees who joined company S in 2014 and 2016 together?
 - (A) 119
 - (B) 133
 - (C) 127
 - (D) 113
- 53. What is the average number of employees who joined all the given companies in 2017?
 - (A) 182
 (B) 174
 (C) 168
 (D) 178

- 54. The total number of employees who joined all the given companies together in 2019 was 12% more than the total number of employees who joined all the given companies together in 2018. What was the total number of employees who joined all the given companies in 2019?
 - (A) 952
 - (B) 978
 - (C) 948
 - (D) 962
- 55. What is the ratio of the total number of employees who joined company P in 2015 and 2016 together to the total number of employees who joined company R in 2014 and 2015 together?
 - (A) 9:13
 - (B) 9:11
 - (C) 9:14
 - (D) 7:11

Directions: Study the following pie-chart carefully and answer the questions based on the chart.

Total number of employees-12600

Percentage wise distribution of employees



- 56. The number of employees in the Marketing department is approximately what percent more than the number of employees in Purchase department?
 - (A) 29
 - (B) 39
 - (C) 19
 - (D) 69

- 57. The number of employees in Purchase department is approximately what percentage of the total number of employees in the department of HR and Marketing together?
 - (A) 65
 - (B) 51
 - (C) 55
 - (D) 61
- 58. If 30 percent of the number of employees of Research department is females, then what is the number of male employees in the Research department?
 - (A) 1343
 - (B) 1232
 - (C) 1323
 - (D) 1242
- 59. What is the average number of employees in Accounts, Production and Research department together?
 - (A) 1722
 - (B) 1784
 - (C) 1742
 - (D) 1786
- 60. What is the difference between the total number of employees in the department of HR and Production together and the total number of employees in Accounts and Purchase department together?
 - (A) 2644
 - (B) 2286
 - (C) 2464
 - (D) 2268



Directions: Study the graph carefully and answer the questions given below.

61. What was the percentage increase in number of sick units from 2001 to 2003?

- (A) 152
- (B) 167
- (C) 150
- (D) 142

62. What was the difference in bank credit between 2001 and 2002?

- (A) Rs. 5 crore
- (B) Rs. 50 crore
- (C) Rs. 500 crore
- (D) Rs. 50 lakh
- 63. If the bank credit is reduced to half in the year 2001, what will be the approximate bank credit per sick unit?
 - (A) Rs. 3 lakh
 - (B) Rs. 4 lakh
 - (C) Rs. 30 lakh
 - (D) Rs. 3 crore
- 64. In which year was the bank credit per sick unit the maximum?
 - (A) 2000
 - (B) 2001
 - (C) 2002
 - (D) 2003

- 65. In 2003, what was the total bank credit per sick unit approximately?
 - (A) Rs. 32 crore
 - (B) Rs. 71 crore
 - (C) Rs. 71 lakh
 - (D) Rs. 4 lakh
- 66. Mital is standing facing towards the West. He turns 45° clockwise, then he turns 180° in the same direction and finally he turns 270° anticlockwise. In which direction is he facing now?
 - (A) West
 - (B) South-West
 - (C) South
 - (D) North-west

Directions: Each question is based upon the following Venn diagram.



- 67. Which subject has been taken by most of the students?
 - (A) Geography
 - (B) Science
 - (C) Mathematics
 - (D) History

- 68. The number of total students who have taken either History or Mathematics or Science
 - (A) 324
 - (B) 230
 - (C) 190
 - (D) 183

69. Here are some words translated from an artificial language.

gorblflur means fan belt

pixngorbl means ceiling fan

arthtusl means tile roof

Which word could mean "ceiling tile"?

- (A) gorbltusl
- (B) flurgorbl
- (C) arthflur
- (D) pixnarth
- 70. Here are some words translated from an artificial language.

moolokarn means blue sky *wilkospadi* means bicycle race *moolowilko* means blue bicycle

Which word could mean "racecar"?

- (A) wilkozwet
- (B) spadiwilko
- (C) moolobreil
- (D) spadivolo

- 71. **Direction:** In the question below, a statement followed by two courses of action numbered I and II is given. You have to assume everything in the statement to be true and on the basis of the information given in the statement, decide which of the suggested courses of action logically follow(s) for pursuing.
 - **Statement:** The Asian Development Bank has approved a \$285 million loan to finance a project to construct coal ports by Paradip and Madras Port Trusts.

Courses of Action:

- I. India should use financial assistance from other international financial organizations to develop such ports in other places.
- II. India should not seek such financial assistance from the international financial agencies.
- (A) If only I follows
- (B) If only II follows
- (C) If either I or II follows
- (D) If neither I nor II follows
- 72. **Direction:** Read the paragraph carefully and determine the main point the author is trying to make. What conclusion can be drawn from the argument? The paragraph is followed by four statements. One statement supports the author's argument better than the others do.

In the past, consumers would rarely walk into an ice cream store and order low-fat ice cream. But that isn't the case today. An increasing health consciousness combined with a much bigger selection of tasty low-fat foods in all categories has made low-fat ice cream, a very profitable item for ice cream store owners.

This paragraph best supports the statement that

- (A) low-fat ice cream produces more revenue than other low-fat foods
- (B) ice cream store owners would be better off carrying only low-fat ice cream
- (C) ice cream store owners no longer think that low-fat ice cream is an unpopular item
- (D) consumers are fickle and it is impossible to please them
- 73. Find the missing word:

ELFA, GLHA, ILJA,, MLNA

- (A) OLPA
- (B) KLMA
- (C) LLMA
- (D) KLLA

74. **Direction:** In the following question, various terms of an alphabet series are given with terms missing as shown by (?). Choose the missing terms out of the given alternatives.

A, B, N, C, D, O, E, F, P, ?, ?, ?

- (A) G, H, I
- (B) G, H, J
- (C) G, H, Q
- (D) J, K, L

Directions: Answer the questions based on the information given below.

The given pie chart shows the data regarding the percentage distribution of the number of people affected by floods in five different districts in Kerala. Total number of people affected in the given 5 districts is 24500.

Total people affected (in each district) = Males + Females

Percentage distribution of number of people affected by floods



75. Find the average of number of people affected by flood in Alappuzha, Pathanamthitta, and Idukki districts.

- (A) 3,920
- (B) 4,410
- (C) 5,390
- (D) 5,880

- 76. If the ratio of males to females affected by flood in Ernakulam and Pathanamthitta is same, that is 4:3 respectively, then the number of females affected by flood in Ernakulam is what percentage more or less than the number of females affected by flood in Pathanamthitta?
 - (A) 20%
 - (B) 25%
 - (C) 40%
 - (D) 50%
- 77. Find the difference between the average of number of people affected by flood in Alappuzha and Ernakulam districts taken together and average of number of people affected by flood in Pathanamthitta and Idukki districts taken together.
 - (A) 575
 - (B) 645
 - (C) 735
 - (D) 825
- 78. Find the ratio of number of people affected by flood in Thrissur to the number of people affected by flood in Idukki district.
 - (A) 2:3
 - (B) 3:4
 - (C) 4:5
 - (D) 5:6
- 79. The Government decided to give aid to people affected by flood in Kerala. The ratio of amount given to a male and a female is 5 : 4, and the ratio of males to females affected by flood in Thrissur district is 4 : 3. If the total amount given to Thrissur district is Rs. 30.24 lacs, then find the amount received by each male in Thrissur district.
 - (A) Rs. 250
 (B) Rs. 500
 (C) Rs. 750
 (D) Rs. 1000

- 80. Q, R, S, and T are sitting on a bench. P is sitting next to Q, R is sitting next to S, S is not sitting with T who is on the left end of the bench. R is in the second position from the right. P is to the right of Q and T. P and R are sitting together. In which position P is sitting?
 - (A) Between Q and S
 - (B) Between Q and R
 - (C) Between T and S
 - (D) Between R and T
- 81. X gives half of his property to his wife and half of the rest to his son. The remainder is divided equally to his two daughters. The share of each daughter is
 - (A) $\frac{1}{8}$
 - (B) $\frac{1}{6}$
 - (C) $\frac{1}{4}$ (D) $\frac{2}{3}$
- 82. In a vertical stack of boxes, box P is 5 positions below box Q, where Q is 15th from the top. If box R, which is 10th from the bottom, is 3 position above box P, how many boxes are there in the stack?
 - (A) 25
 - (B) 28
 - (C) 26
 - (D) 20
- 83. Introducing a boy, a girl said, "He is the son of the daughter of the father of my uncle." How is the boy related to the girl?
 - (A) Brother
 - (B) Nephew
 - (C) Uncle
 - (D) Son-in-law

- 84. Choose the correct order of sentences marked A, B, C, D and E to form a correct paragraph.
 - (A) This knowledge of himself helps a man to be courageous.
 - (B) Socrates taught that 'the man who is master of himself is truly free'.
 - (C) The courageous man has a very important sort of freedom from fear.
 - (D) By being master of oneself he meant knowing oneself one's weaknesses and strengths without any pretense and being vain and with full control of oneself.
 - (E) Socrates himself practiced this fearlessness of mind and freedom by teaching what he felt right.
 - (A) EBDCA
 - (B) BDCAE
 - (C) BDACE
 - (D) DCBAE
- 85. Choose the option that completes the sentence most meaningfully and appropriately.

Although, many people don't like the jobs they do, they remain stuck to them for reasons.

- (A) pecuniary
- (B) inexplicit
- (C) ulterior
- (D) internal

86. Choose the option that completes the sentence most meaningfully and appropriately.

Education polished her to become civilized,, and impressive

- (A) hyper corrective
- (B) eloquent
- (C) ambiguous
- (D) insensitive

87. Choose the option that completes the sentence most meaningfully and appropriately.

The women in India were kept underuntil the new laws in free India ensured their.....from the tentacles of an orthodox society.

- (A) impression, education
- (B) subjugation, emancipation
- (C) shackles, exculpation
- (D) pressure, release

HARTHANK

88. Choose the option that completes the sentence most meaningfully and appropriately.

Theof opinion which emerged at a recently concluded seminar was that the problem of dowry cannot beunless the law against it is made more stringent.

- (A) Divergence, Managed
- (B) Consensus, Tackled
- (C) Similarity, Curbed
- (D) Convergence, Appreciated
- 89. **Direction:** Read the sentence to find out whether there is any grammatical error or idiomatic error in the bold part of the sentence and replace the error with suitable words if required.

He is the only one of the members who have paid all the dues.

- (A) Members who has paid
- (B) Members who have been paying
- (C) Member who has been paid
- (D) No correction required
- 90. **Direction:** Read the sentence to find out whether there is any grammatical error or idiomatic error in the bold part of the sentence and replace the error with suitable words if required.

Blessed with much intelligence, he **saw very few meanings** in religious rites that are performed as mere rituals.

- (A) Observes very few meanings
- (B) Looked for very few meanings
- (C) Saw little meaning
- (D) Saw quite a few meanings
- 91. Choose the word which is most **similar** in meaning to the word in capital letters.

AVARICIOUS

- (A) Jealous
- (B) Angry
- (C) Greedy
- (D) Wick

92. Choose the word which is most **similar** in meaning to the word in capital letters.

VITUPERATION

- (A) Questionable
- (B) Bitter criticism
- (C) Resistance
- (D) Absurdity
- 93. Choose the word which is most **similar** in meaning to the word in capital letters.

ENSCONCE

- (A) To surround
- (B) To honour
- (C) To promote
- (D) To settle comfortably
- 94. Choose the word which is most **opposite** in meaning of the word in capital letters.

WOEFULLY

- (A) Dolefully
- (B) Mercilessly
- (C) Mournfully
- (D) Blissfully
- 95. Choose the word which is most **opposite** in meaning of the word in capital letters.

THWARTED

- (A) Foiled
- (B) Baffled
- (C) Balked
- (D) Fostered

96. Choose the word which is most **opposite** in meaning of the word in capital letters.

OBSEQUIOUS

- (A) Offensive
- (B) Fawning
- (C) Mutinous
- (D) Duteous

97. In the question below is given a statement followed by two conclusions numbered I and II. You have to assume everything in the statement to be true, then consider the two conclusions together and decide which of them logically follows beyond a reasonable doubt from the information given in the statement.

Statements: Until our country achieves economic equality, political freedom and democracy would be meaningless.

Conclusions:

- : I. Political freedom and democracy go hand in hand.
 - II. Economic equality leads to real political freedom and democracy.
- (A) Only conclusion I follows
- (B) Only conclusion II follows
- (C) Neither I nor II follows
- (D) Both I and II follow

Directions: Study the given passage carefully and answer the questions that follow.

One of the most critical demographic events in the world today is population ageing i.e. the process by which the share of older individuals in the total population starts becoming larger. The ageing phenomenon, which has been initially experienced by developed countries, is now steadily approaching the developing world. Projections show that over the next five decades, world median age will continue to increase, resulting in enhanced old age dependency ratios in all parts of the world. Thus, population ageing would be a major global public policy concern in the twenty-first century posing unprecedented challenges for fiscal, monetary and overall macro-economic management.

RHA

There is a general consensus that ageing population reduces output growth, limits economic welfare and lowers employment. One direct effect of population ageing is labour shortages that are caused by declining birth rates and increasing life spans. This translates itself into a higher old-age dependency ratio (i.e. proportion of population aged 65 and older to population aged 15 to 64). Consequently, with ageing, the economy's capacity to sustain the elderly population would decline. An important consequence of this development is reflected in increasing fiscal pressures through higher government spending on social security, health care and other welfare programmes for the elderly accompanied by lower tax buoyancy consequent to falling proportions of the productive labour force. Given the hard budget constraint for many developing countries, this could mean lower government spending for programmes that primarily benefit the young. With public pension schemes coming under increasing pressure to raise contribution levels or cut the size of social safety benefits. The issue of fiscal sustainability is one of the principal challenges facing policymakers worldwide, particularly in the context of intergenerational equity.

The experience of US, Western Europe and other Organization for Economic Cooperation and Development (OECD) countries suggests that substantial demographic changes have occurred in the past few decades. Improvements in life standards, health care and nutrition have increased life expectancy. As a result, the old-age dependency ratio in OECD countries is projected to reach nearly 50 percent by 2050. This is going to pose a huge fiscal burden in terms of social security, health care, pension and other related expenditures. In this regard, an OECD exercise reveals a rise in old age pension spending, on an average, by about 3-4 percentage points of GDP over the period till 2050. Expenditure relating to health and longterm medical care is estimated to increase by more than 3 percentage points of GDP over the same period. Overall, total age-related expenditures relative to GDP could rise on average by about 7 percentage points over the period 2000-2050. In turn, this would imply an average decline of 6-7 percentage points in the primary balance to GDP ratio.

- 98. On which of the following points related to population ageing, there is no dispute among thinkers?
 - (A) The direct effect of population ageing is abundance of labourers
 - (B) Economic welfare will be enhanced due to availability of experienced people
 - (C) Employment will be lowered significantly due to population ageing
 - (D) Old age dependency ratio will be lowered significantly
- 99. The term "population ageing" refers to
 - (A) the proportion of senior citizens in a developed country
 - (B) the percentage of older people in a developing nation
 - (C) increase in the overall population of a developed country
 - (D) enhancement in the proportion of older people in the population

- 100. Which of the following factors is responsible for increase in longevity?
 - (1) Substantial raise in living status
 - (2) Adequate and timely health care
 - (3) Nourishing and healthy diet
 - (A) 1 and 2 only
 - (B) 2 and 3 only
 - $(C) \quad 1 \text{ and } 3 \text{ only}$
 - (D) All the three
- 101. Which of the following is most likely to happen by middle of the 21st century?
 - (1) In countries like US and Western Europe, the old age dependency ratio is likely to touch 50%.
 - (2) Six to seven percentage points increase in primary balance to GDP ratio in OECD countries.
 - (3) Raise to the extent of three to four percentage points of GDP in age old pension spending.
 - (A) 1 and 2 only
 - (B) 1 and 3 only
 - (C) 2 and 3 only
 - (D) All the three
- 102. What is most likely to happen if the dependency ratio is higher?
 - (A) It would lower the economy's capacity to sustain the elderly population
 - (B) Government spending on social security would significantly decline
 - (C) Productive labour force will increase significantly
 - (D) Due to increased longevity expenditure on health care will reduce
- 103. **Directions:** In the following question, four words or phrases have been underlined. Only one underlined part is not acceptable in Standard English. Choose that part as your correct answer.

The Finance Minister
$$\frac{\text{has not}}{(A)} = \frac{\text{probably}}{(B)}$$
 will not introduce $\frac{\text{the bill}}{(C)}$ in this session $\frac{\text{of the Parliament}}{(D)}$.

- (A) has not
- (B) probably
- (C) the bill
- (D) of the Parliament

104. **Directions:** In the following question, four words or phrases have been underlined. Only one underlined part is not acceptable in Standard English. Choose that part as your correct answer.

She
$$\frac{\text{asked}}{(A)}$$
 them $\frac{\text{whether they}}{(B)}$ heard $\frac{\text{any one}}{(C)}$ knocking $\frac{\text{not to open}}{(D)}$ the door.

- (A) asked
- (B) whether they
- (C) any one
- (D) not to open
- 105. **Directions:** In the following question, four words or phrases have been underlined. Only one underlined part is not acceptable in Standard English. Choose that part as your correct answer.

Neither he pays	now	nor does	pay later
(A)	(B)	(C)	The profilise to (D) .

- (A) Neither he pays
- (B) now
- (C) now does
- (D) pay later
- 106. **Directions:** In the following question, four words or phrases have been underlined. Only one underlined part is not acceptable in Standard English. Choose that part as your correct answer.

Several guests
$$\frac{\text{noticed}}{(A)}$$
 Mr. Peter $\frac{\text{fall}}{(B)} \frac{\text{in his}}{(C)}$ chair and $\frac{\text{gasping}}{(D)}$ for breath

- (A) noticed
- (B) fall
- (C) in his
- (D) gasping

107. Choose the correct **SPELLING** from the following.

- (A) Comittee
- (B) Committee
- (C) Committe
- (D) Committee

108. Choose the correct **SPELLING** from the following.

- (A) Separate
- (B) Saparate
- (C) Seperate
- (D) Separete

109. Choose the correct **SPELLING** from the following.

- (A) Noledge
- (B) Knowladge
- (C) Knowledge
- (D) Knowlege

110. Choose the correct **SPELLING** from the following.

- (A) Consience
- (B) Consiance
- (C) Consiens
- (D) Conscience

111. Fill in the Blanks with suitable answers from the choice given below.

She is embarrassed her lack of money.

- (A) with
- (B) about
- (C) by
- (D) on

112. Fill in the Blanks with suitable answers from the choice given below.

He picked his bag and hurried off.

- (A) at
- (B) of
- (C) up
- (D) down
- 113. Fill in the Blanks with suitable answers from the choice given below.

Are you still looking a job?

- (A) in
- (B) for
- (C) at
- (D) with

114. Fill in the Blanks with suitable answers from the choice given below.

She persists wearing that old fashioned dress.

- (A) in
- (B) about
- (C) of
- (D) to

115. Fill in the Blanks with suitable answers from the choice given below.

He jumped his horse and rode off.

- (A) about
- (B) on
- (C) with
- (D) for

116. Choose the sentence with the correct word order from the following.

- (A) On the Earth we live.
- (B) We live on the Earth.
- (C) We on the Earth live.
- (D) On the Earth live we.

117. Choose the sentence with the correct word order from the following.

- (A) The company employs currently one hundred men and sixty women.
- (B) One hundred men and sixty women currently the company employs.
- (C) The company currently employs one hundred men and sixty women.
- (D) Employs the company currently one hundred men and sixty women.

118. Choose the sentence with the correct word order from the following.

- (A) Ninety degrees today to the temperature is supposed to rise.
- (B) Today ninety degrees to the temperature is supposed to rise.
- (C) The temperature today is supposed to rise to ninety degrees.
- (D) The temperature is supposed to rise to ninety degrees today.
- 119. Choose the sentence with the correct word order from the following.
 - (A) Contributed we ten dollars each to the fund.
 - (B) We each contributed ten dollars to the fund.
 - (C) Ten dollars to the fund we contributed each.
 - (D) To the fund contributed we each ten dollars.

- 120. Choose the sentence with the correct word order from the following.
 - (A) He earns seventy-five pounds a week.
 - (B) Seventy-five pounds earns he a week.
 - (C) He seventy-five pounds earns a week.
 - (D) Earns he seventy-five pounds a week.
- 121. Which country launched world's first hydrogen double-decker bus?
 - (A) Scotland
 - (B) Sweden
 - (C) New York
 - (D) Tokyo

122. Virgin Orbit is a company that provides launch services for small satellites. Where is the headquarters of Virgin Orbit?

- (A) California
- (B) Beijing
- (C) Germany
- (D) India
- 123. In the second week of January 2021 which cryptocurrency crossed \$40,000 milestone for first time in world?
 - (A) Ethereum
 - (B) Binance Coin
 - (C) Bitcoin
 - (D) USD coin
- 124. Who is the first woman functional director on the board of Indian Oil Corporation (IOC), the nation's largest oil refining and fuel marketing company?
 - (A) Sukla Mistry
 - (B) Lakshmi Sharma
 - (C) Aditi Gupta
 - (D) Radhika Ghai Aggarwal

- 125. As per Standards for Charging Infrastructure for Electric Vehicles (EV), who can set up a Public Charging Station (PCS)?
 - (A) DISCOMs
 - (B) Individuals
 - (C) Ministry of Power
 - (D) State Governments
- 126. What is the name of the scheme announced by the central government to provide skill training to youth and make them entrepreneurs?
 - (A) PM DAKSH Yojana
 - (B) Nai Manzil Scheme
 - (C) PM MUDRA Yojana
 - (D) PM UMEED Yojana
- 127. Prime Minister Narendra Modi announced which date to be celebrated as National Start-up Day?
 - (A) 16th December
 - (B) 17th January
 - (C) 17th February
 - (D) 16th January
- 128. Which of the following aviation company was recently titled 'The 2021 Airline of the year?
 - (A) Vistara
 - (B) Qatar Airways
 - (C) Air France
 - (D) Lufthansa
- 129. Which technology company has created a 2-nanometer chip, the smallest and most powerful microchip?
 - (A) Qualcomm
 - (B) IBM
 - (C) Apple Inc.
 - (D) Samsung

- 130. What is the objective of 'Kavach' Technology announced for Indian Railways?
 - (A) Waste Management
 - (B) Burglar Guard
 - (C) Anti-Collision
 - (D) Covid Protocol in Trains
- 131. Which institution released 'Financial Stability Report (FSR)' as the flagship report?
 - (A) NITI Aayog
 - (B) Reserve Bank of India
 - (C) World Bank
 - (D) Asian Development Bank
- 132. Which village was awarded 'World's Best Tourism Villages' by The World Tourism Organization (UNWTO) for the year 2021?
 - (A) Pochampally
 - (B) Kadamakkudy
 - (C) Chitkul
 - (D) Janjehli
- 133. What is the name of the Mars rover of the U.S. space agency NASA, which has recently landed on the red planet?
 - (A) Discovery
 - (B) Perseverance
 - (C) Grit
 - (D) Ingenuity
- 134. Famous engineer, Vinod Dham is known as the 'Father of; for leading a company's iconic microprocessor brand.
 - (A) Fiber Optics
 - (B) Pentium chip
 - (C) Missile Technology
 - (D) Mobile Phone
- 135. Researchers of which Indian institution have developed touch-sensitive, tactile, haptic watch for assisting visually impaired people?
 - (A) IIT Madras
 - (B) IIT Kanpur
 - (C) IIM Ahmadabad
 - (D) JNTU

- 136. Which company introduced 'Dermatology assist' as an AI powered tool to detect skin disease?
 - (A) Amazon
 - (B) Google
 - (C) Apple
 - (D) Microsoft
- 137. Where is the Central Scientific Instruments Organization (CSIO) located?
 - (A) Chandigarh
 - (B) Chennai
 - (C) Hyderabad
 - (D) Varanasi

138. India's largest app for financial services that has integrated with Unified Payment Interface (UPI) is

- (A) ETmoney
- (B) Wally
- (C) Mint
- (D) You need a Budget
- 139. Which bank in partnership with National Payments Corporation of India launched RuPay credit cards named 'Veer' for Armed Forces?
 - (A) State Bank of India
 - (B) Kotak Mahindra Bank
 - (C) Bandhan Bank
 - (D) Axis Bank
- 140. What is the objective of ONDC, a new platform of Commerce ministry?
 - (A) Open Network for e-Commerce
 - (B) Open Network for Grievance Redressal
 - (C) Open Network for GST Complaints
 - (D) Open Network for Infrastructure Pipeline
- 141. World Trade Organisation (WTO) was established in the year
 - (A) 1945
 - (B) 1950
 - (C) 1960
 - (D) 1955

- 142. Who is the father of scientific management?
 - (A) Peter F. Drucker
 - (B) Henri Fayol
 - (C) F.W. Taylor
 - (D) Elton Mayo

143. MIS stands for

- (A) Management Intelligent System
- (B) Modern Information System
- (C) Management Information Science
- (D) Management Information System
- 144. The financial ratio used to know whether the borrowing firm can generate funds quickly to pay off its creditors is
 - (A) Acid test ratio
 - (B) Current ratio
 - (C) Debt Equity ratio
 - (D) Inventory turnover ratio
- 145. When did the Industrial Dispute Act passed?
 - (A) 1964
 - (B) 1957
 - (C) 1951
 - (D) 1947
- 146. Project network analysis technique PERT stands for
 - (A) Process Evaluation and Research Technique
 - (B) Program Evaluation and Research Technique
 - (C) Program Evaluation and Review Technique
 - (D) Project Evaluation and Research Technique
- 147. Which among the following is **NOT** a variable process control chart?
 - (A) R-chart
 - (B) \overline{X} chart
 - (C) P-chart
 - (D) σ -chart

- 148. The various steps involved in PDCA cycle are
 - (A) Plan Divide Control Act
 - $(B) \quad Plan-Do-Check-Act$
 - $(C) \quad Process-Divide-Control-Act$
 - $(D) \quad Process-Do-Check-Act$
- 149. The process of identifying, learning and adapting outstanding practices and processes from other organizations to help an organization to improve its performance is
 - (A) Empowerment
 - (B) Enhancement
 - (C) Standardization
 - (D) Benchmarking
- 150. Which among the following is related to inventory management?
 - (A) TQM
 - (B) MBO
 - (C) JIT
 - (D) SIX SIGMA

FINAL ANSWER KEY									
Subject Name: 622 M VOC IN TECHNOLOGY AND MANAGEMENT									
SI No.	Kev	SI No.	Kev	SI No.	Kev	SI No.	Kev	SI No.	Kev
1	C	31	C	61	B	91	C	121	A
2	D	32	А	62	С	92	В	122	А
3	А	33	В	63	А	93	D	123	С
4	D	34	D	64	А	94	D	124	А
5	С	35	В	65	D	95	D	125	В
6	D	36	D	66	В	96	C	126	D
7	В	37	А	67	В	97	В	127	D
8	В	38	А	68	D	98	C	128	В
9	С	39	С	69	D	99	D	129	В
10	А	40	С	70	D	100	D	130	С
11	Α	41	А	71	Α	101	В	131	В
12	А	42	В	72	C	102	Α	132	Α
13	С	43	D	73	D	103	Α	133	В
14	D	44	D	74	C	104	D	134	В
15	D	45	А	75	С	105	В	135	В
16	Α	46	С	76	Α	106	В	136	В
17	D	47	В	77	С	107	D	137	Α
18	С	48	C	78	В	108	Α	138	Α
19	В	49	В	79	С	109	С	139	В
20	D	50	C	80	В	110	D	140	Α
21	D	51	D	81	Α	111	С	141	D
22	Α	52	A	82	C	112	С	142	С
23	В	53	В	83	Α	113	В	143	D
24	В	54	Α	84	С	114	Α	144	Α
25	В	55	В	85	А	115	В	145	D
26	В	56	А	86	В	116	В	146	С
27	D	57	С	87	В	117	С	147	C
28	В	58	С	88	В	118	D	148	В
29	D	59	А	89	А	119	В	149	D
30	В	60	D	90	С	120	А	150	C