## DO NOT OPEN THIS BOOKLET UNTIL YOU ARE ASKED TO DO SO.

# 2017 TEST BOOKLET PAPER-VI

Time allowed: 3 hours

Full marks: 200

Answer all the questions.

Questions are of equal value.



~		No.	
	OFFE		
1.75	11511	1 4 4 9	

NB: This paper was attempted by	one of
our students. It may contain some	e
wrong answers.	

Roll No:	

Signature of the Candidate:

 3	 Current Ci	

#### INSTRUCTIONS

Candidates should read the following instructions carefully before answering the questions:

- 1. This booklet consists of 24 pages including this front page. Verify the Page Nos. and Test Booklet Series on each page and bring at once to the Invigilator's notice any discrepancy.
- 2. Answers will have to be given in the Special Answer-Sheet supplied for the purpose.
- 3. Before you proceed to mark in the Answer-Sheet in response to various items in the Test Booklet, you have to fill in some particulars in the Answer-Sheet as per instructions sent to you in the Admit Card. Do not fold the Answer-Sheet as this will result in error in your marks.
- 4. All questions are of multiple-choice answer-type. You will find four probable answers (A), (B), (C) and (D) against each question. Find out which of the four answers appears to you to be correct or the best. Now darken the oval corresponding to the letter of the selected answer in the Answer-Sheet with Black Ball Point Pen as per instructions printed on the reverse of the Admit Card and in the Answer-Sheet.
- 5. If more than one oval is encoded for a particular answer, it will be treated as a wrong answer.
- 6. There will be negative marking of  $\frac{1}{3}$  mark for each wrong answer.
- 7. There are blank pages at the end of this booklet for rough work.
- 8. The Special Answer-Sheet should be handed over to the Invigilator before leaving the Examination Hall. You are permitted to take away the used Test Booklet after completion of the examination.

[Please Turn Over]

- 1. The average weight of x, y, z is 45 kg. If the average weight of x and y be 40 kg and that of y and z be 43 kg, then the weight of y is
  - (A) 20 kg
  - (B) 26 kg
  - (C) 31 kg
    - (D) 17 kg
- 2. If the side of a square is increased by 30%, then its area is increased by
  - (A) 9%
  - (B) 60%
  - (C) 30%
  - (D) 69%
- **3.** The mean of 19 observations is 4. If one more observation of 24 is added to the data, the new mean will be
  - NAT 5
  - (B) 6
  - (C) 4
  - (D) 7
- 4. A mixture of 40 litres of milk and water contains 10% water. How much water should be added to this mixture so that the new mixture contains 20% water?
  - (A) 6.5 litres
  - (B) 4 litres
  - (C) 5 litres
  - (D) 7.5 litres
- 5. The average of three numbers is 28. The first number is half of the second and the third number is twice the second. The third number is
  - (A) 48
  - (B) 18
  - (C) 24
  - (D) 36

- - (A)  $\frac{5}{16}$
  - (B)  $\frac{3}{8}$
  - (C)  $\frac{1}{16}$
  - (D)  $\frac{41}{7280}$
- 7. a, b, c, d are four consecutive odd integers and their average is 42. What is the product of a and c?
  - (A) 1890
  - (B) 1677
  - (C) 1860
  - (D) 1845
- **8.** The difference between the squares of two consecutive even integers is always divisible by
  - (A) 3
  - (B) 7
  - (C) 6
  - VB) 4
- **9.** If a is a prime number, then the L.C.M. of a and (a + 1) is
  - (A) a(a + 1)
  - (B)  $a^2$
  - (C)  $(a+1)^2$
  - (D)  $\frac{a(a+1)}{2}$
- **10.** The least number which when divided by 15, 27, 35 and 42 leaves in each case a remainder 7, is
  - (A) 1883
  - (B) 1987
  - 100 1897 .
    - (D) 2007

- 11. If three-fifths of 60% of a number is 36, the number is
  - (A) 90
  - (B) 80
  - (C) 100
  - (D) 75
  - **12.**  $\{(25)^{25} 25\}$  is exactly divisible by
    - (A)-25
    - (B) 24
    - (C) 50
    - (D) 26
  - 13.  $\frac{5}{8}$  of  $24 = \frac{15}{7} \times ?$ 
    - (A) 7
      - (B)  $\frac{7}{225}$
      - (C) 8
      - (D) 15
  - **14.**  $\left(2-\frac{1}{3}\right)\left(2-\frac{3}{5}\right)\left(2-\frac{5}{7}\right).....\left(2-\frac{999}{1001}\right)=?$ 
    - (A)  $\frac{999}{1001}$
    - (B)  $\frac{1001}{3}$
    - $(C) \frac{1003}{3}$ 
      - (D) None of the above
  - **15.**  $8^{0.28} \times 4^{0.08} = ?$ 
    - (A) 2
    - (B)  $8^{0.36}$
    - (C)  $4^{0.36}$
    - (D) 1

- 16. A sum of Rs. 312 was divided among 60 boys and some girls in such a way that each boy gets Rs. 3.60 and each girl Rs. 2.40. The number of girls is
  - (A) 65
  - (B) 60
  - (C) 35
  - (0) 40
- $(0.\overline{1})^2 \left\{ 1 9 \times (0.\overline{16})^2 \right\} = ?$ 
  - (A)  $\frac{7696}{10^6}$
  - (B)  $\frac{1}{109}$
  - (C)  $\frac{1}{108}$
  - (D)  $\frac{-1}{162}$
  - **18.** If  $\sqrt{0.04 \times 0.4 \times x} = 0.4 \times 0.04 \times \sqrt{y}$ , then  $\frac{x}{y}$  is
    - (A) 1
    - (B) 0·16
    - (C) 16
    - (D) 0.016
  - 19. The mean of five numbers is 18. If one number is excluded, their mean is 16. The excluded number is
    - (A) 26
      - (B) 27
      - (C) 25
      - (D) 30
  - **20.**  $\sqrt{2+\sqrt{2+\sqrt{2+......\infty}}}=?$ 
    - (A) 2
      - (B)  $\sqrt{2}$
    - (C)  $2\sqrt{2}$
    - (D)  $2 + \sqrt{2}$

**21.** The value of  $\sqrt{4 + \sqrt{44 + \sqrt{10000}}}$  is

- (A) -4
- (B) 4
- (C) 8
- (D) 12

22. A boy was asked to multiply a number by 12. By mistake he multiplied the number by 21 and got his answer 63 more than the correct answer. The answer was



- (D) 9

**23.** If  $\frac{x}{y} = \frac{4}{3}$ , then  $\frac{3x + 2y}{3x - 2y} = ?$ 

- (A) 5
- (B) 6
- (C) -1

24. If we multiply a fraction by itself and divide the product by its reciprocal,  $18\frac{26}{27}$  is obtained. The original fraction is

- (A)  $2\frac{2}{3}$
- (B)  $1\frac{1}{3}$
- (C)  $\frac{8}{27}$
- (D) None of the above

**25.** If 20% of a = 30% of  $b = \frac{1}{6}$  of c, then a : b : c is

- (A) 3:2:16
- (B) 2:3:16
- (C) 15:10:18
  - (D) 10:15:18

**26.** The H.C.F. and L.C.M. of two numbers x and y are respectively 3 and 105. If x + y = 36, then  $\frac{1}{x} + \frac{1}{y} = ?$ 

- (D)  $\frac{3}{5}$

27. The H.C.F. of two numbers is 12 and their difference is also 12. The numbers are

- (A) 66, 76
- (B) 70,82
- (C) 94, 108
- (B) 84, 96

**28.** If  $(225)^{2.5} + (225)^x = 225$ , then x = ?

- (A) 0.5
- (B) 1
- (C) 1.5
- (D) 2

**29.**  $(256)^{0.16} \times (16)^{0.18} = ?$ 

- (A) 16
- (B) 4
  - (C) 64
  - (D) 256·25

**30.** The value of  $\{(.98)^3 + (.02)^3 + 3 \times .98 \times .02 - 1\}$  is

- (A) 1
- (B) 1·09
- (C) 0
- (D) 1.98

- 31. How many digits are required for numbering the pages of a book having 300 pages?
  - (A) 299
  - (B) 492
  - (C) 789
  - (D) 792
- **32.** Price of 5 chairs and 2 tables is Rs. 1,350. Two chairs cost as much as one table. What is the price of one chair and one table?
  - (A) Rs. 350
  - (B) Rs. 450
    - (C) Rs. 500
    - (D) Rs. 550
- **33.** A student was asked to divide a number by 3. But, instead of dividing it, he multiplied it by 3 and got 29.7. What was the correct answer?
  - (A) 9·3
  - (B) 3.3
  - (C) 9·8
  - (D) 9.9
  - 34. Which of the following fraction lies between
- $\frac{3}{5}$  and  $\frac{2}{3}$ ?
  - $\sqrt{AT} \frac{31}{50}$ 
    - (B)  $\frac{1}{15}$
    - (C)  $\frac{2}{5}$
  - (D)  $\frac{1}{3}$
  - 35.  $\frac{(0.73)^3 + (0.27)^3}{(0.73)^2 + (0.27)^2 0.73 \times 0.27} = ?$ 
    - (A) 0·4087
    - (B) 0.73
    - (C) 0·46
    - (D)1

- **36.** How many  $\frac{1}{8}$ 's are there in  $37\frac{1}{2}$ ?
  - (A) 300
  - (B) 400
  - (C) 500
  - (D) 800
- 37. In an examination, a student was asked to find  $\frac{3}{14}$  of a number. By mistake, he found  $\frac{3}{4}$  of it. His answer was 150 more than the correct answer. The given number is
  - (A) 180
  - (B) 240
  - (C) 280
  - (D) 290
  - **38.**  $999\frac{1}{7} + 999\frac{2}{7} + 999\frac{3}{7} + 999\frac{4}{7} + 999\frac{5}{7} + 999\frac{6}{7} = ?$ 
    - (A) 2997
    - (B) 5997
      - (C) 5979
      - (D) 5994
- **39.** If 1.5x = 0.04y, then the value of  $\left(\frac{y-x}{y+x}\right)$  is
  - (A)  $\frac{730}{77}$
  - (B)  $\frac{73}{770}$
  - (C)  $\frac{73}{77}$
  - (D)  $\frac{703}{77}$
- **40.** If 75% of the students in a school are boys and the number of girls is 420, the number of boys is
  - (A) 1176
  - (B) 1350
  - (C) 1125
  - (B) 1260

# BM-(C)10/17

- **41.** The least number of 4 digits, which is a perfect square is
  - (A) 1000
  - (B) 1016
  - (C) 1024
  - (D) 1089
- $\sqrt[6]{42}$ . If  $\sqrt{2} = 1.4142$ , then  $\sqrt{\left(\frac{\sqrt{2} 1}{\sqrt{2} + 1}\right)}$  is equal to
  - (A) 0.732
  - (B) 1·3142
  - (C) 0.4142
  - (D) 0.3652
- 6 43. The population of a town increases by 5% annually. If it is 15435 now, its population 2 years ago was
  - (A) 14000
  - (B) 15000
  - (C) 13700
  - (D) 14800
  - **44.** If  $\frac{1872}{\sqrt{x}} = 234$ , the value of x is
    - (A) 324
    - (B) 64
    - (C) 8
    - (D) 256
- **45.** The radius of a circle is increased by 1%. What is the increase per cent in its area?
  - (A) 1%
  - (B) 1·1%
  - (C) 2%
  - (D) 2.01%

- **46.** The fraction for the recurring decimal 0.535353...... is
  - $(A) \frac{53}{99}$ 
    - (B)  $\frac{28}{53}$
    - (C)  $\frac{26}{53}$
    - (D)  $\frac{27}{53}$
  - **47.** The value of  $\frac{\sqrt{32} + \sqrt{48}}{\sqrt{8} + \sqrt{12}}$  is
    - (A)  $\sqrt{2}$
    - (B) 4
    - UC) 2
      - (D) 8
- **48.** A gardener plants 17956 trees in such a way that there are as many rows as there are trees in a row. The number of trees in a row are
  - (A) 136
  - (B) 134
    - (C) 144
    - (D) 154
  - **49.** If  $1.125 \times 10^k = 0.001125$ , then k = ?
    - (A) -3
      - (B) 4
      - (C) 2
    - (D) -1
- **50.** If numbers p, p + 2, p + 4 are all primes, then p equal to
  - (A) 5
  - (B) 29
  - (G) 3
  - D) 191

- **51**. X and Y together can complete a piece of work in 12 days, Y and Z can do it in 20 days and Z and X can do it in 15 days. X,Y and Z together can complete it in
  - (A) 6 days
  - (B) 9 days
  - (C) 10 days
  - (D)  $10^{\frac{1}{2}}$  days
- **52.** If a:b=c:d=e:f=1:2, then (3a+5c+7e):(3b+5d+7f)=?
  - (A) 1:2
  - (B) 1:4
  - (C) 2:1
  - (D) 8:7
- **53**. When 40% of a number is added to 42, the result is the number itself. The number is
  - (A) 82
  - (B) 105
  - (C) 70
    - (D) 72
- 54. The speed of a train 150m long is 50 km/h. How much time will it take to pass a platform 600m long?
  - (A) 50 sec
  - (B) 60 sec
  - (C) 54 sec
  - (D) 64 sec
- 55. If  $\frac{4}{5}$ th of a cistern is filled in 1 minute, how much more time will be required to fill the rest of it?
  - (A) 10 sec
  - (B) 12 sec
  - (C) 15 sec
  - (D) 20 sec

- **56**. 24 men can complete a given job in 40 days. The number of men required to complete the job in 32 days, is
  - (A) 32
  - (B) 30
  - (C) 34
  - (D) 36
  - **57.**  $\sqrt[3]{0.000216} = ?$ 
    - (A) 0.0006
    - (B) 0.006
    - (C) 0.06
    - (D) 0.6
- **58.** X can do a piece of work in 20 days and Y can do it in 12 days. Y worked at it for 9 days. In how many days can X alone finish the remaining work?
  - (A) 5
  - (B) 3
  - (C) 7
  - (D) 11
- **59**. The ratio of cost price and selling price of an article is 20: 21. What is the profit per cent on it?
  - (A) 5.5%
  - (B) 5%
    - (C) 6%
  - (D) 6.25%
  - **60**. 5, 2, 7, 9, 16, 25,?
    - (A) 41
    - (B) 45
    - (C) 48
    - (D) 52

**61.** 
$$\sqrt{248 + \sqrt{52 + \sqrt{144}}} = ?$$

- (A)/14
- (B) 16
  - (C) 16·6
  - (D) 18·8
- 62. The sum of first five prime number is
  - (A) 11
  - (B) 18
  - (C) 26
  - (D) 28
- **63**. The value of x satisfying  $\sqrt{5 + \sqrt[3]{x}} = 3$  is
  - (A) 125
  - (B) 64
  - (C) 27
  - (D) 9
- **64**. How many metres of carpet 63cm wide will be required to cover the floor of a room 14m by 9m?
  - (A) 210m
  - (B) 200m
  - (C) 220m
  - (D) 185m
- **65**. A man gains 10% by selling an article for a certain price. If he sells it at double the price, the profit made is
  - (A) 20%
  - (B) 60%
  - (C) 100%
  - (D) 120%

- **66.**  $\left(\frac{243}{32}\right)^{-\frac{4}{5}}$  is equal to
  - (A)  $\frac{81}{16}$
  - (B)  $\frac{16}{81}$
  - (C)  $\frac{9}{2}$
  - (D)  $\frac{2}{9}$
- **67.** The least perfect square which is divisible by 3, 4, 5, 6, 8 is
  - (A) 900
  - (B) 1200
  - (C) 2500
  - (D) 3600
  - **68.** The value of  $\left(\frac{2^n + 2^{n-1}}{2^{n+1} 2^n}\right)$  is
    - (A)  $\frac{1}{2}$
    - (B)  $2^{\frac{n-1}{n+1}}$
    - (C)  $\frac{3}{2}$
    - (D) None of the above
- **69.** If  $(1^2 + 2^2 + 3^2 + \dots + 10^2) = 385$ , then the value of  $(2^2 + 4^2 + 6^2 + \dots + 20^2)$  is
  - (A) 770
  - (B) 1540
  - (C) 1155
  - (D)  $385 \times 385$
- **70**. Identify the wrong number in the series 69, 55, 26, 13, 5.
  - (A) 13
  - (B) 5
  - (C) 26
  - (D) 55

71. On dividing a sum of Rs. 832 between A and B

in the ratio  $\frac{1}{3}:\frac{1}{5}$ , their shares are

- (A) Rs. 500, Rs. 332
- (B) Rs. 530, Rs. 302
- (C) Rs. 520, Rs. 312
- (D) Rs. 490, Rs. 342

72. A vender 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) None of the above

**73.** If  $x^2 + 4y^2 = 4xy$ , then x : y = ?

- (A) 2:1
- (B) 1:2
- (C) 3:2
- (D) 1:4

74. A man received 15% increase in his salary. If his new salary is Rs. 1,932, his original salary (in rupees) was

- (A) 1,642·20
- (B) 1,820
- (C) 1,680
- (D) 1,720·60

75. The H.C.F. of 0.54, 1.8 and 7.2 is

- (A) 0·18
- (B) 1.8
- (C) 0.018
- (D) 18

**76.** A clock is started at noon. By 10 minutes past 5, the hour hand has turned through

- (A) 155°
- (B) 150°
- (C) 145°
- (D) 160°

77. How many time do the hands of a clock coincide in a day?

- (A) 20
- (B) 21
- (C) 22
- (D) 24

**78.** 4, 6, 9,  $13\frac{1}{2}$ , ?

- (A)  $22\frac{3}{4}$
- (B)  $20\frac{1}{4}$
- (C) 19
- (D)  $17\frac{1}{2}$

79. A man invested  $\frac{1}{3}$  of his capital at 7%;  $\frac{1}{4}$  at 8% and the remainder at 10%. If his annual income is Rs. 561, the capital is

- (A) Rs. 6,600
- (B) Rs. 6,000
- (C) Rs. 5,400
- (D) Rs. 7,200

**80.**  $11\frac{1}{9}$ ,  $12\frac{1}{2}$ ,  $14\frac{2}{7}$ ,  $16\frac{2}{3}$ , ?

- (A)  $19\frac{1}{2}$ 
  - (B) 20
  - (C)  $8\frac{1}{3}$
  - (D)  $22\frac{1}{3}$

81. In what time will a sum of money double itself at

 $6\frac{1}{4}\%$  p.a. simple interest?

- (A) 5 years
- (B) 12 years
- (C) 8 years
- (D) 16 years

**82.** 4, 6, 12, 14, 28, 30, ?

- (A) 32
- (B) 60
- (C) 62
- (D) 64

**83.** 4, 8, 28, 80, 244, ?

- (A) 728
- (B) 278
- (C) 428
- (D) 628

84. The selling price of an article is  $\frac{4}{3}$  times its cost price. The gain percentage is

- (A)  $20\frac{1}{2}\%$
- (B)  $20\frac{1}{3}\%$
- (C)  $25\frac{1}{4}\%$
- (D)  $33\frac{1}{3}\%$

**85.** If (a + b): (a - b) = 1: 5, then  $(a^2 - b^2)$ :  $(a^2 + b^2)$  equals

- (A) 3:2
- (B) 2:3
- (C) 5:13
- (D) 13:5

**86.** In a mixture of 60 litres, the ratio of milk and water is 2:1. If the ratio of milk and water is to be 1:2, then the amount of water (in litres) to be further added is

- (A) 30
- (B) 20
- (C) 40
- (D) 60

**87.** If 2x = 3y = 4z, then x : y : z is

- (A) 4:3:2
- (B) 6:4:3
  - (C) 6:3:2
  - (D) 3:4:2

**88.** If 20% of (p+q) = 50% of (p-q), then p:q=?

- (A) 7:3
- (B) 5:7
- (C) 7:5
- (D) 7:8

**89.** X began a business with Rs. 4,500 and was joined afterward by Y with Rs. 5,400. If the profits at the end of the year were divided in the ratio 2:1, Y joined the business after

- (A) 5 months
- (B) 4 months
- (C) 7 months
- (D) 6 months

**90.** a, b, c subscribed Rs. 50,000 for a business. a subscribes Rs. 4,000 more than b and b Rs. 5,000 more than c. Out of a total profit of Rs. 35,000, a receives

- (A) Rs. 14,700
- (B) Rs. 8,400
- (C) Rs. 11,900
- (D) Rs. 13,600

D-11

- **91.** How many times are the hands of a clock at right angle in a day?
  - (A) 22
    - (B) 24
    - (C) 44
    - (D) 48
- **92.** In a 100m race, X beats Y by 10m and Z by 13m. In a race of 180m, Y will beat Z by
  - (A) 4.5m
  - (B) 5m
  - (C) 6m
  - (D) 5·4m
- 93. At a game of billiards, X can give Y 15 points in 60 and X can give Z 20 in 60. How many can Y give Z in a game of 90?
  - (A) 10 points
  - (B) 12 points
  - (C) 20 points
    - (D) 30 points
- **94.** A boat is rowed downstream at 15.5 km/hr and upstream at 8.5 km/hr. The speed of the stream is
  - (A) 3.5 km/hr
    - (B) 5.75 km/hr
    - (C) 6.5 km/hr
    - (D) 7 km/hr
- 95. The speed of the boat in still water is 15 km/hr. It can go 30 km upstream and return downstream to the original point in 4 hrs 30 min. The speed of the stream is
  - (A) 8 km/hr
  - (B) 10 km/hr
  - (C) 5 km/hr
  - (D) 15 km/hr

- **96.** 0, 6, 24, 60, 120, 210, ?
  - (A) 240
  - (B) 336
  - (C) 290
  - (D) 504
- 97. Which fraction comes next in the sequence

$$\frac{1}{2}$$
,  $\frac{3}{4}$ ,  $\frac{5}{8}$ ,  $\frac{7}{16}$ , ?

- (A)  $\frac{10}{17}$
- (B)  $\frac{12}{35}$
- (C)  $\frac{9}{32}$
- (D)  $\frac{11}{34}$
- **98.** A boatman goes 2 km against the current of stream in 1 hour and goes 1 km along the current in 10 minutes. How long will he take to go 5 km in stationary water?
  - (A) 40 min
  - (B) 1 hr
  - (C) 1 hr 15 min
  - (D) 1 hr 30 min
- **99.** The simple interest on a sum for 5 years is two-fifth of the sum. The rate per cent per annum is
  - (A) 8%
  - (B) 10%
  - (C) 6%
  - (D)  $12\frac{1}{2}\%$
- **100.**  $\sqrt[3]{\sqrt{0.000064}} = ?$ 
  - (A) 0.02
  - (B) 0·2
  - (C) 2
  - (D) None of the above

**101.** Which of the following is the same as Measles, Rabies, Cancer?

- (A) Pneumonia
- (B) Diabetes
- (C) Tetanus .
- (D) Hepatitis

102. If '+' stands for 'x', '-' for ' $\div$ ', 'x' for '-' and ' $\div$ ' for '+', find the value of  $26 + 74 - 4 \times 5 \div 2$ .

- (A) 220
- (B) 376
- (2) 478
  - (D) 488

103. If L denotes  $\div$ , M denotes  $\times$ , P denotes +, Q denotes -, then which of the following statements is true?

- (A) 32 P 8 L 16 Q 4 = -3/2
- (B) 6 M 18 Q 26 L 13 P 7 = 173/13
- (C) 11 M 34 L 17 Q 8 L 3 = 38/3
- (D) 9P9L9Q9M9 = -71 -

104. Find the missing number:

15		2	9		7	13		16
	80			65			?	
5	Gay - I	6	4	office of	6.	11	of th	8

- (A) 35
- (B) 48
- (C) 72
- (D) 120

105. Choose the odd numeral pair.

- (A) 12:96
- (B) 13:117
  - (C) 15:120
  - (D) 16:128

## Instruction for Q. No. 106 and 107:

Three words are given, which have something in common among themselves. Out of the four given alternatives, choose the most appropriate description about these three words.

106. Comets, Stars, Satellites

- (A) They are shining masses
- (B) They give out light
- (C) They are rotating from left to right
- They are heavenly bodies

107. Theta, Phi, Omega

- (A) These are Latin alphabets
- (B) These are signs of algebra ?
- (C) These are Greek letters
- (D) These are used in physical derivation .

108. Choose the group which is different from others.

- (A) 71, 7, 3, 17
- (B) 67, 71, 3, 5
- (C) 41, 5, 3, 47
- (D) 37, 14, 19, 7

Instruction for Q. No. 109 and 110:

Certain pairs of words are given, out of which the words in all pairs except one, bear a certain common relationship. Choose the pair in which the words are differently related.

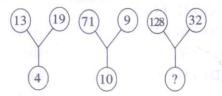
109. (A) Apple : Jam

- (B) Lemon: Citrus
- (C) Orange: Squash
- (D) Tomato: Sauce

110. (A) Shopkeeper: Customer

- (B) Doctor: Patient
- (C) Lawyer: Client,
- (D) Clerk: File

111. Insert the missing number.



- (A) 10
- (B) 15
- 40/20
- (D) 25

112. Find the missing number.

1	2	3
4	5	6
7	8	9
27	38	?

- (A) 49
- (B) 50
- (C) 51
- (D) 52

## Instruction for Q. Nos. 113 to 116:

Arrange the given words in a meaningful sequence and then choose the most appropriate sequence amongst the alternatives provided below the question:

113. 1. Country 2. Punishment 3. Crime 4. Justice

- (A) 1, 3, 4, 2
- (B) 1, 4, 3, 2
- (C) 2, 4, 3, 1
- (D) 2, 3, 1, 4

114. 1. Butterfly 2. Cocoon 3. Egg 4. Worm

- (A) 1, 3, 4, 2
- (B) 1, 4, 3, 2
- (C) 2, 4, 1, 3
- (D) 3, 4, 2, 1

**115.** 1. Presentation 2. Recommendation 3. Arrival 4. Discussion 5. Introduction

- (A) 1, 2, 4, 5, 3
- (B) 3, 2, 5, 1, 4
- (6) 4, 3, 1, 5, 2
- (D) 5, 3, 2, 1, 4

**116.** 1. Never 2. Sometimes 3. Generally 4. Seldom 5. Always

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

**117.** Which of the following is the same as Weevils, Borer, Beetle?

- (A) Termites
- (B) Lice
- (C) Moth
- (D) Ringworms

### Instruction for Q. Nos. 118 to 120:

The following questions consists of two words each that have a certain relationship to each other, followed by four bettered pair of words. Select the bettered pair that has the same relationship as the origin pair of words:

118. Magazine : Periodical

(A) Gun: Soldier

(B) Harvesting: Agriculture

(C) Pun: Joke

(D) Truck: Transport

119. Confine: Prisoner

(A) Impeach: President

(B) Detain : Suspect

(C) Ambush: Sentry

(D) Trace: Fugitive

120. Necessity: Invention

(A) Curiosity : Knowledge

(B) Nation: Citizens

(C) Language: Conversation

(D) Price: Commodity

121. The terms of the given series are

$$3^{1}+1$$
,  $3^{2}-1$ ,  $3^{3}+1$ ,  $3^{4}-1$ ,  $3^{5}+1$ , \_\_\_\_\_.

The missing terms is

- (A)  $3^7 1$
- (B)  $3^8 + 1$
- (C)  $3^6 + 1$

122. Arrange the following words according to dictionary arrangement:

- 1. Epitaxy 2. Episode 3. Epigene 4. Epitome 5. Epilogue
  - (A) 1, 2, 3, 4, 5
  - (B) 3, 2, 5, 4, 1
  - (e) 3, 5, 2, 1, 4
    - (D) 5, 4, 2, 1, 3

123. Choose the correct alternative:

Aluminium is to Bauxite as Iron is to \_\_\_\_

- (A) Pyrite
- (B) Magnesite
- (C) Pyrolusite
- (D) Haematite

124. Choose the correct alternative:

Preface is to Book as Overtrue is to \_

- (A) Opera
- (B) Ballad
- (C) Novel
- (D) Symphony

**125.** Choose the correct alternative:

Infra-red is to Heat as Ultraviolet is to \_\_

- (A) Cancer
- (B) Blisters
- (C) Mutation
- (D) Ozone

126. Choose the pair, which is different from the rest.

- (A) (32, 15)
- (B) (86, 42)

(56, 26)

(D) (74, 36)

127. Choose the pair, which is different from the rest.

- (A) 7,50
- (B) 9,82
- (C) 11, 122
- (D) 10, 99

128. Which letter will be tenth to the left of the fifteen letters from the left end of the following sequence? ABCDEFGHIJKLMNOPQRSTUVWXYZ

- (A) D
- (B) E
- (C) F
- (D) G

129. A number is greater than 4 but less than 9; also the number is greater than 7 but less than 11. What is the number?

- (A) 6
- (B) 7

(C) 8

(D) 9

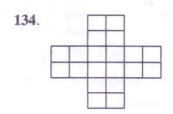
130. What is the next number in the following sequence? 0, 7, 26, 63, 124, 215, ...

- (A) 342
- (B) 372
- (C) 296
- (D) 409

For Guidance of WBCS Exam (Foundation Course = Pre + Main + Interview), Mock Test series (Pre /Main/Optionals) - Online or Offline, Optional subjects, Study Materials, Mock Interview, Everything for WBCS, Guided by WBCS Group A Officers, Call us @ 9674493673 or mail us at

mailus@wbcsmadeeasy.in Visit www.wbcsmadeeasy.in

- **131**. Which among the following is the largest part of the body?
  - (A) Liver
  - (B) Leather
    - (C) Brain
  - (D) Heart
- 132. Which will be the third word in the dictionary?
  - (A) COUNSEL
  - (B) COUCH
  - (C) COUNCIL
    - (D) COUGH
- 133. A disease always has
  - (A) Germs
  - (B) Medicine
  - (C) Cure
  - (D) Cause



The number of square in the above figure is

- (A) 25
- (B) 20
- (C) 23
- (B) 29
- 135. Two parameters BC and PC are related as shown in the following table. What is the value of PC corresponding to a BC of 75?

BC	0	25	50	75	100
PC	33	78	123	?	213

- (A) 157
- 1 (B) 168
- (C) 148
- (D) 167

- 136. There are two buckets P and Q. Initially P has 2 litres of water and Q is empty. At every hour 1 litre of water is transferred from P to Q followed by returning half litre as back to P from Q half an hour later. The earliest P will get empty in
  - (A) 2 h
  - (B) 3 h
  - (C) 4 h
    - (D) 5 h
- 137. Dinesh introduces Nikhil as the son of the only brother of his father's wife. How is Nikhil related to Dinesh?
  - (A) Uncle
  - L(B) Cousin
  - (C) Brother
  - (D) Son
- 138. You are playing in your friend's house, when he get stuck with a naked electric wire. You should
  - (A) hold the wire and pull it away.
  - (B) pull off the wire with a wooden stick.
    - (C) raise an alarm to call some people for help.
    - (D) hold him by the arms and try to set him free.
- 139. A 4 m long car goes past a 5 m long bus at rest on the road. The speed of the car is 9 m/s. Then the car taken time to go past the bus is
  - (A)  $\frac{4}{9}$  s
  - (B)  $\frac{5}{9}$  s
  - (C) 1 s
    - (D)  $\frac{9}{5}$  s
- 140. Motorcycle is related to Battery in the same way as life is related to
  - (A) Sun
    - (B) Man
    - (C) Enjoy
    - (D) Earth

141. A car always has

- (A) wheels
  - (B) driver
  - (C) bonnet
  - (D) dicky

142. A hospital always has

- (A) room
  - (B) doctor
  - (C) bed
  - (D) mobile

143. If 'MEAT' is written as 'TEAM', then 'BALE' is written as

- (A) ELAB
- (B) EALB
- (C) EBAL
- (D) EALB

**144.** If 'EAT' is coded as '318' and 'CHAIR' is coded as '24156', then how can 'TEACHER' be coded?

- (AT 8312436
  - (B) 8312346
  - (C) 8321463
  - (D) 8321364

145. Pick the wrong pair:

- (A) The Great Wall-China
- (B) Colosseum—Rome
- (C) Acropolis—Turkey
- (D) Delhi—India

146. <u>Factory</u> is related to <u>Production</u> in the same way as <u>School</u> is related to

- (A) Building
- (B) Education
- (C) Discipline
- (D) Teaching

147. The word 'fiscal' relates to

- (A) fish
- (B) heavy
- (C) demand and supply
- (D) finance

Direction (Q. Nos. 148 to 150): Complete the letter series:

148. ab\_a\_b\_aab\_aabb\_

- (A) babba
- (B) ababa
- (C) bbaaa
- (D) ababb

149. ac\_ca\_bc\_cb\_ac\_c

- (A) bcabc
- (B) bcacb
- (C) abcac
- (D) bcaca

150. c\_aa\_ba\_cb\_a baa

- (A) abcab
- (B) bbacc
- (C) abcbc
- (D) bcaac

Instruction for Q. Nos. 151 to 153:

Answer the next three questions based on the following information.

Houses numbered 1 to 4 are situated east to west in that order. The houses are each occupied by professors of a college, namely, Prof. A, Prof. B, Prof. C and Prof. D. They teach different subjects: Physics, Chemistry, Mathematics and Biology, and possess different makes of motorcycles each manufactured in a different year. Each of the professors teaches only one subject and owns only one motorcycle. The following additional information is available:

- The owner of the Suzuki motorcycle teaches Mathematics.
- Prof. A has a Honda motorcycle and teaches Physics.
- Prof. B, who teaches Mathematics, lives in house number 2.
- Prof. C teaches Biology and lives in the western-most house.
- 2001 model of motorcycle is owned by the professor of Physics who lives in house number 1.
- · Prof. D owns a BMW motorcycle.

151. Which of the following statements is incorrect?

- (A) Prof. D lives in house number 1.
- (B) Prof. A owns a 2001 model of motorcycle.
- (C) Prof. B rides a Suzuki motorcycle.
- (D) Prof. B has two neighbours.

152. From the above information we can infer that

- (A) Prof. B and Prof. C are neighbours.
- (B) Prof. D teaches Chemistry.
- (C) Prof. B drives a 2001 model of motorcycle.
- (D) Prof. A drives a Suzuki motorcycle.

**153.** Prof. C drives a motorcycle of the following make

- (A) Honda
- (B) BMW
- (C) Suzuki
- (D) None of the above

Study the following information and answer the next two questions: (Q. No. 154 and 155)

- (i) Kailash, Govind and Hari are intelligent.
- (ii) Kailash, Rajesh and Jitender are hard working.
- (iii) Rajesh, Hari and Jitender are honest.
- (iv) Kailash, Govind and Jitender are ambitious.

**154.** Which of the following person is neither hardworking nor ambitious?

- (A) Kailash
- (B) Govind
- (C) Hari
- (D) Rajesh

**155.** Which of the following person is both intelligent and honest?

- (A) Jitender
- (B) Kailash
- (C) Govind

(D) Hari

156. Let P, Q, R and S be statements such that

- (i) if both P and Q are true then R is false, and
- (ii) if P is false then S is false.

Suppose R is true. Then, which of the following necessarily holds?

- (A) Q is false.
- (B) If S is false, then Q is false.
- (C) If S is true, then Q is true.
- (D) If S is true, then Q is false.

For the next three questions (Q. Nos. 157 to 159), numbers are placed in figures on the basis of some rules. Find the correct alternative to replace the question mark.

157.

5	9	14	20
9	17	27	?

- (A) 35
- (B) 37
- VC) 39
- (D) 41

For Guidance of WBCS Exam (Foundation Course = Pre + Main + Interview),
Mock Test series (Pre /Main/Optionals) - Online or Offline,
Optional subjects, Study Materials, Mock Interview, Everything for WBCS,

Guided by WBCS Group A Officers, Call us @ 9674493673 or mail us at mailus@wbcsmadeeasy.in Visit www.wbcsmadeeasy.in

158.

16	28	39	53
31	43	54	?

(A) 68

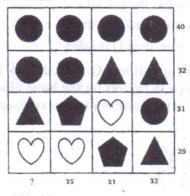
(B) 75

(C) 77

(D) 79

159. (A) 14 (B) 77 (C) 81 (D) 113

160. If the numbers alongside each column and row are the total of the values of the symbols within each column and row, which number should replace the question mark?



(A) 30

(B) 33

JO 34

(D) 36

Instruction for Q. Nos. 161 to 165:

Answer the next five questions based on the following information.

Examinations were held during the two weeks. 3rd January, Sunday to 16th January, Saturday. There was one examination each for the six subjects-English, Bengali, Physics, Chemistry, Mathematics and Biology. There was at most one examination on any day. No examinations were held on Saturdays, Sundays and on 5th January, which was a national holiday. Exactly three examinations were held in each week. The Bengali examination was held before the Physics examination, and the Chemistry examination was held the day after the Biology examination. The Physics and the Chemistry examinations were held on the same day of the week. Similarly, the English and the Bengali examinations were held on the same day of the week. There were no examinations for three days between the English examination and the examination before it. The Biology and the Mathematics examinations were held on a Tuesday and a Thursday respectively.

**161.** On which of the following set of dates were there no examinations?

(A) 11th, 14th and 15th January

(B) 8th, 14th and 15th January

(C) 7th, 14th and 15th January

(D) 7th, 8th and 15th January

**162.** On which of the following dates was the Biology examination held?

(A) 5th January

(B) 6th January

12th January

(D) 13th January

163. Which examination was held on 4th January?

(A) English

(B) Bengali

(C) Chemistry

(D) Biology

- 164. The number of days (including weekends and holidays, if any) between the Bengali and the Mathematics examination is
  - (A) one
  - (B) two
  - (C) three
  - (D) four
  - 165. Which examinations were held in the first week?
    - (A) Physics, Bengali and Mathematics
    - (B) Physics, Chemistry and Bengali
    - (C) Physics, Chemistry and English
    - (D) Physics, Chemistry and Mathematics
- **166.** Two positions of a dice are shown. Find the number of the dots on the face opposite the face bearing 3 dots.



- (B) 2
- (C) 4
- (B) 5
- **167.** Only two newspapers, X and Y, are available to families in a locality. It is known that
  - (i) 17 families don't take newspaper X
  - (ii) 15 families don't take newspaper Y
  - (iii) 12 families take only newspaper Y

Then the number of families taking only newspaper X is

- (A) 10
- (B) 12

(C) 15

(D) 17

Directions for the following three items: (O. Nos. 168 to 170)

The number in each circle in the number pyramid is the sum of the two numbers just below it.

**168.** Few of the numbers in a number pyramid are filled in. Find the number in the position marked "?".



- (A) 29
- (B) 30
- ver 31
- (D) 32
- **169.** Few of the numbers in a number pyramid are filled in. Find the number in the position marked "?".

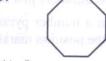


- (A) 4
- (B) 5
- (C) 6
- (D) 7
- 170. Few of the numbers in a number pyramid are filled in. Find the number in the position marked "?".



- (A) 35
- (B) 36
- (C) 37
- (D) 39

171. If we want to exactly cover a regular octagon (pictured below) with triangles (of different shapes and sizes), what is the least number of triangles that we must use?

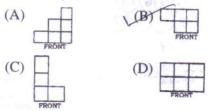


- (A) 5
- (B) 6
- (C) 7
- (D) 8

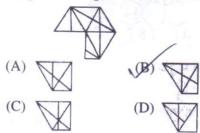
172. The drawing shows a solid figure built with a number of cubes.



Which plane drawing below represents the figure as viewed directly from above?



173. Complete the missing portion of the given pattern by selecting from the given alternatives.



For the next two questions (Q. No. 174 and 175), suppose the same dice looks from three different angles as follows:







**174.** Find the number of dots on the face opposite the face bearing 3 dots.

- (A) 4
- (B) 5
- NOT 6
  - (D) Cannot be determined from the given information.

175. Find the number of the dots on the face opposite the face bearing 5 dots.

- (A) 1
- (B) 2
- (C) 4

Cannot be determined from the given information.

## Instruction for Q. Nos. 176 to 180.

There is a certain relation between two given words on one side of: and one word is given on another side of: while another word is to be found from the given alternatives, having the same relation with the word as the words of the given pair bear.

Choose the best atlernative:

176. Botany: Plants:: Entomology:?

- (A) Snakes
- M (B) Insects
  - (C) Birds
  - (D) Germs

177. Pyrophobia: Fire:: Ochlophobia:?

- (A) Horses
- (B) Crowd
- (C) Light
- (D) Foreigners

178. Pituitary: Brain:: Thymus:?

- (A) Larynx
- (B) Spinal cord
- (C) Throat
- (D) Chest

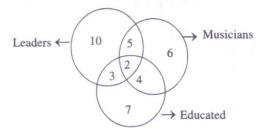
179. Entrepreneur: Profit:: Scholar:?

- (A) Income
- (B) Knowledge
- (C) Service
- (D) Business

**180.** If A + B > C + D and B + C > A + D then it is definite that

- (A) D > B
- (B) C > D
- (C) A > D
- (D) B > D

Questions 181 to 185: Study the following diagram carefully and answer the given questions:



181. 'Leaders' who are also 'Educated' are represented by

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

**182.** 'Musicians' who are also 'Leaders' but not 'Educated' are represented by

- (A) 7
- (B) 2
- 1 CCT 5
  - (D) 4

**183.** 'Musicians' who are neither 'Leaders' nor 'Educated' are represented by

- (A) 2
- (B) 4
- (C) 5
- 1 (D) 6

O184. 'Leaders' who are not 'Musicians' are represented by

- (A) 10 '
- (B) 3 '
- VC 13
- (D) 15

**185.** 'Musicians' who are also 'Leaders' as well as 'Educated' are represented by

- (A) 2
  - (B) 6
  - (C) 7
  - (D) 9

186. Find the odd one from the rest:

- (A) 64
- (B) 136
- (C) 125
- (D) 216

Anil

187. Anil alone can finish a work in 10 days which Amit alone can finish in 15 days. If they work together and finish it, then they earned a wages of Rs. 3,000. How much will Anil earn?

- (A) Rs. 1,600
- (B) Rs. 1,800
  - (C) Rs. 2,000
  - (D) Rs. 1,500

**188**. The four different positions of a dice are given below:









What number is on the face opposite 1?

- LAY 6
- (B) 3
- (C) 5
- (D) 2

**189**. Let p and q be two positive integers such that p + q + pq = 118. Then p + q

- (A) 22
- (B) 24
- (C) 18
- (D) is not determined by the given condition

- 190. Ram bought a shirt at 10% discount and sold it to Kamal at a loss of 10%. If Kamal paid Ram Rs. 891.00 for the shirt, what was the undiscount price of the shirt?
  - (A) Rs. 1,069
  - (B) Rs. 1,100
  - (C) Rs. 1,070
  - (D) Rs. 1000
- 191. If in English Alphabet A replaces E, E replaces I, I replaces O, O replaces U and U replaces A, then which letter will be fourteenth in English alphabet?
  - (A) M
  - (B) I
  - (C) K
  - VADO N
- 192. Arrange the following in a logical order:
  - 1. Birth
  - 2. Death
  - 3. Funeral -
  - 4. Marriage ~
  - (A) 1, 4, 2, 3
  - (B) 1, 3, 4, 2
  - (C) 4, 1, 2, 3
  - (D) 1, 2, 3, 4
- 193. Arrange the following in a meaningful sequence:
  - 1. Phrase
  - 2. Letter
  - 3. Word
  - 4. Sentence
  - (A) 1, 3, 2, 4
  - (B) 2, 3, 1, 4
    - (C) 1, 2, 3, 4
  - (D) 4, 3, 2, 1
- 194. Find the odd one from the rest:
  - (A) 3
  - (B) 17 ·
  - (C) 49 V
  - (D) 31
- 195. Find the odd one from the rest:
  - (A) Water
  - (B) Moon
  - (C) Sun
  - (D) Star

196. Find the missing number:

45, 54, 47, ?, 49, 56, 51, 57

- (A) 50
- (B) 55 **<**
- (C) 48 .....
- (D) 53
- 197. If DARE is coded as 1083 and FATE is coded as 2093, then FARE is coded as
  - (A) 2038
  - (B) 2083
    - (C) 2803
  - (D) 3082 · · ·
- 198. Find the missing character from among the given alternative.

	1	2	3
	4	5	6
	7	8	9
	48	?	78

- (A) 62
- (B) 63
- (C) 70
- (D) 60
- 199. ABCD: NPRT:: FGHI:?
  - (A) RTUW
  - (B) RTOQ ·
  - (C) SUWY
  - (D) SUYW
- 200. Suppose
  - (i) x = 2
  - (ii) Then  $x-2=x^2-2^2$  (as both sides are equal)
  - (iii) Thus (x-2) = (x-2)(x+2)
  - (iv) Therefore 1 = x + 2 (by cancelling x 2 from both side)
  - (v) Hence x = -1.

What is the wrong step?

- (A) (i) to (ii)
  - (B) (ii) to (iii)
- (C) (iii) to (iv)
- (D) (iv) to (v)

For Guidance of WBCS Exam (Foundation Course = Pre + Main + Interview), Mock Test series (Pre /Main/Optionals) - Online or Offline,

Optional subjects, Study Materials, Mock Interview, Everything for WBCS, Guided by WBCS Group A Officers, Call us @ 9674493673 or mail us at mailus@wbcsmadeeasy.in Visit www.wbcsmadeeasy.in

# Space for Rough Work

For Guidance of WBCS Exam (Foundation Course = Pre + Main + Interview),
Mock Test series (Pre /Main/Optionals) - Online or Offline,
Optional subjects, Study Materials, Mock Interview, Everything for WBCS,
Guided by WBCS Group A Officers, Call us @ 9674493673 or mail us at
mailus@wbcsmadeeasy.in Visit www.wbcsmadeeasy.in

# **ADMISSION OPEN**