

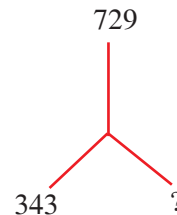
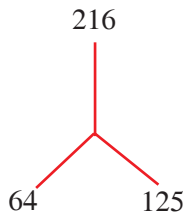
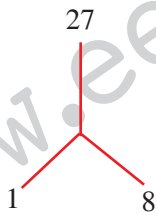
STAFF SELECTION COMMISSION

COMBINED GRADUATE LEVEL

TIER – 1 PREVIOUS PAPER – 2016

PART - 1: GENERAL INTELLIGENCE AND REASONING

1. If BLACKSMITH is coded as CNBELUNKUJ then CHILDREN will be coded as
1) DJINETEP 2) DJJNETFP 3) DIJMESFO 4) DIJMEYEP
2. If $17 + 17 = 2895$, $18 + 18 = 3245$, $19 + 19 = 3615$, Then $23 + 23 = ?$
1) 5765 2) 5295 3) 2565 4) 4005
3. Arrange the following as per the order in the english dictionary.
a) Dyke b) Dwindle 3) Dwell 4) Dye
1) 2341 2) 3214 3) 2314 4) 3241
4. Selection the missing number in the given response.



- 1) 432 2) 501 3) 512 4) 332

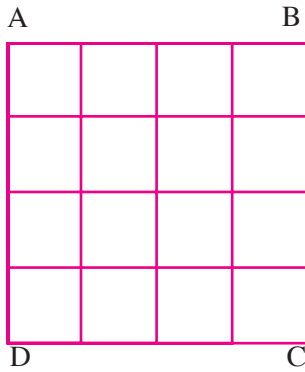
Directions (Q.5 – 8): Select the related word/letter/number from the given alternatives series.

5. DHL : PTX :: BFJ : ?
1) KOS 2) NRV 3) NRU 4) NPS
6. Donkey : Brays :: Monkey : ?
1) Trumpets 2) Bellows 3) Chatters 4) Grunts
7. ABDE : FGIIJ :: IJLM : ?
1) NMOP 2) NOPQ 3) NOQR 4) NPQR
8. $1 : 8 :: ? : 64$
1) 36 2) 27 3) 30 4) 25

Directions (Q.9 – 11): Find the odd words/ letters/ numbers from the given alternatives.

9. 1) Diving 2) Swimming 3) Driving 4) Sailing
10. 1) CTES 2) VDZC 3) MKOJ 4) RGTF
11. 1) 245 2) 443 3) 633 4) 821
12. Find the wrong number in the series. 28 33 31 36 34 29
1) 29 2) 36 3) 33 4) 34

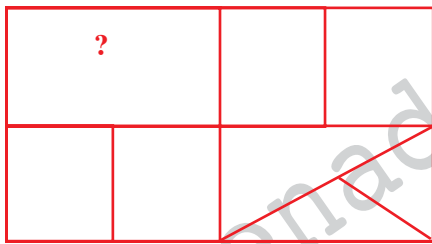
13. How many squares are there in the square figure ABCD?



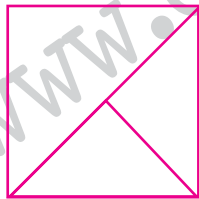
- 1) 16
- 2) 17
- 3) 30
- 4) 26

14. Which of the following figure will complete the question figure?

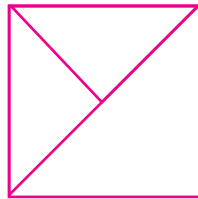
Question Figure:



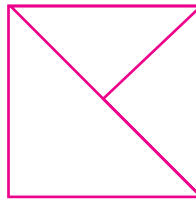
Answer Figures:



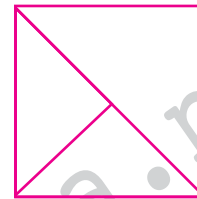
1



2



3



4

15. Find the word that cannot be formed from the letters in the given word SEGREGATION.

- 1) NATION
- 2) GREAT
- 3) GREETINGS
- 4) SEATING

16. Asha is taller than Pratima. Prabhas is shorter than Pratima. Alka is shorter than Asha. Alka is taller than Prabhas. Which of the following is the shortest?

- 1) Pratima
- 2) Alka
- 3) Prabhas
- 4) Asha

17. **Statements:** All intelligent people are creative.

Conclusions: I) Some creative people are intelligent.

II) All intelligent people are creative.

Which one of the following correct?

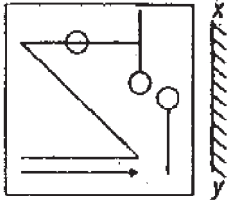
- 1) Only conclusion I follows
- 2) Only conclusion II follows
- 3) Both conclusion I and conclusion II
- 4) Neither conclusion I nor conclusion II follow

18. Shama, during the time of sunset, started walking towards the opposite side of sun, and then she turns right and right again. What direction is she facing?

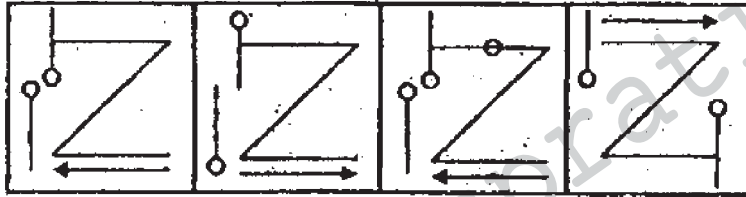
- 1) South
- 2) West
- 3) East
- 4) North

19. What is the mirror image of the following figure?

Question Figures:



Answer Figures:



1 2 3 4

Directions (20 – 22): Find the missing term in the given series.

20. 2 7 10 22 18 37 26 ?

- 1) 42 2) 52 3) 46 4) 62

21. 4 12 48 240 1440 ?

- 1) 7620 2) 10080 3) 6200 4) 10020

22. GEFH ZXZY SQRT ?

- 1) UKM 2) KILN 3) JGIO 4) NLMO

23. A word is represented by only one set of numbers as given in any one of the alternatives. The sets of numbers given in the alternatives are represented by two classes, of alphabets as in two matrices given below. The columns and rows of **Matrix - I** are numbered from 0 to 4 and that of **Matrix - II** are numbered from 5 to 9. A letter from these matrices can, be represented first by its row and next by its column, e.g. 'S' can be represented by 14, 23 etc. and 'E' can be represented by 56, 68 etc. similarly, you have to identify the set for the word CURE.

Matrix - I

	0	1	2	3	4
0	G	V	E	A	C
1	R	O	N	G	S
2	M	U	E	S	I
3	O	C	I	T	A
4	N	S	N	E	P

Matrix - II

	5	6	7	8	9
5	R	E	U	N	G
6	N	P	V	E	S
7	M	T	I	O	N
8	E	A	I	C	O
9	N	T	A	R	S

1) 04, 57, 10, 88

2) 31, 21, 56, 85

3) 88, 57, 10, 85

4) 04, 21, 55, 86

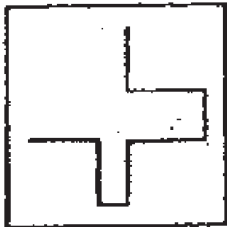
24. If \times means $-$, $-$ means \div , $+$ means \times and \div means $+$, then what will be the value of the following expression?

$$16 \times 8 \div 4 - 3 + 9$$

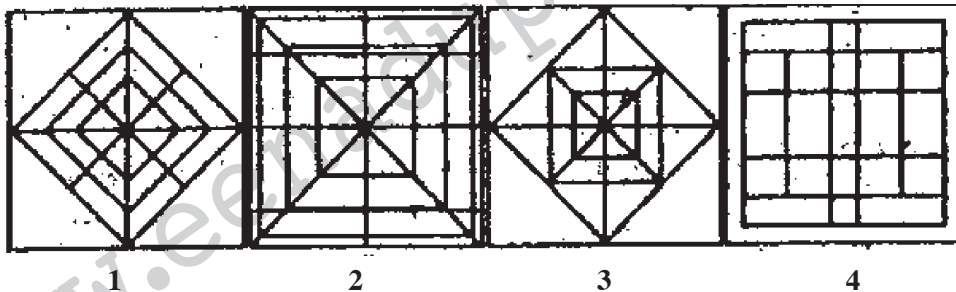
- 1) 10 2) 19 3) 20 4) 9

25. In which of the following answer figures, the question figure is embedded?

Question Figure:



Answer figures:



PART - II GENERAL AWARENESS

26. The Kakori Conspiracy was a train robbery that took place between Kakori and Lucknow in
- 1) 1931 2) 1919 3) 1925 4) 1929
27. Who is the first female governor of Independent of India?
- 1) Vijayalakshmi Pandit 2) Sharda Mukherjee
3) Fathima Beevi 4) Sarojini Naidu
28. Which cell organelle is the site of photosynthesis and also contains chlorophyll?
- 1) Chloroplasts 2) Vacuole 3) Cytoplasm 4) Nucleolus
29. What are the components responsible for acid rain?
- 1) Nitrogen monoxide (NO) and Carbon Monoxide (CO)
2) Sulphur dioxide (SO₂) and Nitrogen Oxides (NO_x)
3) Carbon dioxide (CO₂) and Carbon Monoxide (CO)
4) Oxides of carbon (CO_x) and Oxides of Nitrogen (NO_x)
30. The headquarter of FIFA is in
- 1) Berlin 2) Vienna 3) France 4) Zurich
31. Which of the following is an insulator?
- 1) Mercury 2) Carbon 3) Germanium 4) Glass
32. Which of the following state has the highest literacy rate?
- 1) Goa 2) Karnataka 3) Mizoram 4) Himachal Pradesh

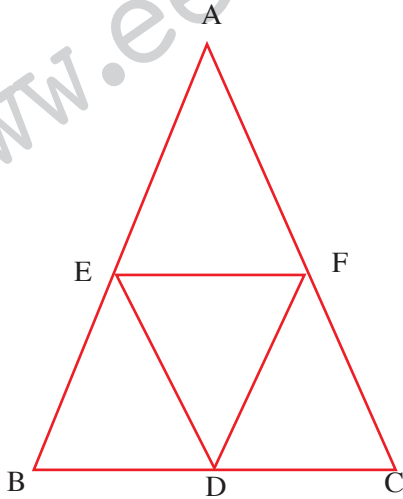
33. Which monument is known as 'Dream of Stones'?
- 1) Charminar 2) Ajanta caves 3) Sanchi Stupa 4) Panchmahal
34. Name the process by which bubbles from liquid are formed.
- 1) Effervescence 2) Surface Tension 3) Surface Energy 4) Degasification
35. What is Zeolite?
- 1) Hydrated Aluminosilicate
2) Hydrated Calcium sulphate
3) Dehydrated Aluminosilicate
4) Dehydrated Calcium sulphate
36. Highest source of air pollution in the world is
- 1) Automobiles 2) Industries 3) Household wastes 4) Aircrafts
37. "A thing of beauty is a Jpy forever" is a poem by.....
- 1) William Shakespeare 2) J.K. Rowling
3) John Keats 4) George Eliot'
38. The boiling point of water depends upon the....
- 1) atmospheric pressure 2) volume
3) density 4) mass
39. Which of the following deserts has the highest, gold deposits?
- 1) Kyzyl – Kum desert 2) Gobi desert
3) Mojave desert 4) Tanami desert
40. The Himalayas are also Known by the name...
- 1) Ancient mountains 2) Fold mountains
3) Valley mountains 4) Indus mountains
41. The amount of insolation received at a place on the surface of the earth depends upon
- 1) its climate 2) the longitude of the place
3) its latitude 4) the altitude of the place
42. Alluvial soil are rich soil for crop cultivation but are poor in.....
- 1) humus 2) nitrogen and humus
3) organic material 4) inorganic material
43. By which amendment were 'Fundamental Duties' added to the constitution?
- 1) 42 2) 46 3) 61 4) 88
44. Bamboo is classified as
- 1) Tree 2) Grass 3) Shrub 4) Herb
45. Which apparatus is used to measure the intensity of light?
- 1) Lux meter 2) Calorimeter 3) Anemometer 4) Altimeter
46. L. P. G. is mostly liquefied.....
- 1) Hydrogen 2) Oxygen 3) Butane 4) Methane

47. What is used in storage batteries?
 1) Copper 2) Tin 3) Lead 4) Zinc
48. The first computer made available for commercial use was
 1) MANIAC 2) FNIAC 3) UNIVAC 4) EDSAC
49. Which river originates from Amarkantak plateau?
 1) Narmada river 2) Son river 3) Betwa river 4) Godavari river
50. Thomas Cup is associated with
 1) Billiards 2) Table tennis 3) Lawn tennis 4) Badminton

PART - III QUANTITATIVE APTITUDE

51. In ΔABC , $AB = a - b$, $AC = \sqrt{a^2 + b^2}$ and $BC = \sqrt{2ab}$, then find angle B.
 1) 60° 2) 30° 3) 90° 4) 45°
52. If 10% of X is 3 times of 15% of y, then find x : y.
 1) 7 : 2 2) 9 : 2 3) 8 : 3 4) 11 : 4
53. Find the value of
 1) $\frac{1}{1 + \tan^2 \theta} + \frac{1}{1 + \cot^2 \theta}$
 1) $\frac{1}{4}$ 2) 1 3) $\frac{1}{2}$ 4) 2
54. Find the value of $\sqrt{10 + \sqrt{25 + \sqrt{108 + \sqrt{154 + \sqrt{225}}}}}$
 1) 6 2) 10 3) 8 4) 4
55. Two rifles are fired from the same place at a difference of. 11 min 45 sec. But a man who is coming towards the place in a train hears the second sound after 11 min. Find the speed of the train (assuming the speed of sound = 330 m/s).
 1) 72 km/h 2) 36 km/h 3) 81 km/h 4) 108 km/h
56. If $a + \frac{1}{a-2} = 4$, then the value of $(a-2)^2 + \left(\frac{1}{a-2}\right)^2$ is
 1) 0 2) 2 3) -2 4) 4
57. The average of runs of a cricket player of 20 innings was 32. How many runs must he make in his next innings so as to increase his average of runs by 4?
 1) 116 2) 114 3) 170 4) 76
58. If $x = \frac{6pq}{p+q}$, then the value of $\frac{x+3p}{x-3p} + \frac{x+3q}{x-3q}$ is
 1) 1 2) 4 3) 2 4) 3
59. 12 men and 16 boys can do a piece of work in 5 days. 13 men and 24 boys can do it in 4 days, then the ratio of the daily work done by a man to that of a boy is
 1) 2 : 1 2) 3 : 1 3) 1 : 3 4) 5 : 4

60. If $x = 1 + \sqrt{2} + \sqrt{3}$, then find value of $x^2 - 2x + 4$.
 1) $2(7 + \sqrt{6})$ 2) $2(4 + \sqrt{6})$ 3) $2(3 + \sqrt{7})$ 4) $(4 + \sqrt{6})$
61. A is faster than B. A and B each walks 24 km. The sum of their speeds is 7 km/hr and the sum of times taken by them is 14 hours. Then A's speed is equal to
 1) 3 km/h 2) 4 km/h 3) 5 km/h 4) 7 km/h
62. A man gains 20% by selling an article for a certain price. If he sells it at double the price, the percentage of profit will be.
 1) 40% 2) 100% 3) 120% 4) 140%
63. A man buys a watch for ₹ 1,950 in cash and sells it for ₹ 2,200 at a credit of 1 year. If the rate of interest be 10% per annum, then how much profit or loss he have?
 1) ₹ 55 profit 2) ₹ 30 profit 3) ₹ 30 loss 4) ₹ 30 profit
64. A sum of money invested, at compound interest amounts to ₹ 800 in 3 years and to ₹ 840 in 4 years. The rate of interest per annum is:
 1) $2\frac{1}{2}\%$ 2) 5% 3) 4% 4) $6\frac{2}{3}\%$
65. If D, E and F are the mid - points of the sides of an equilateral triangle ABC, then the ratio of the areas of ΔDEF and ΔDCF is



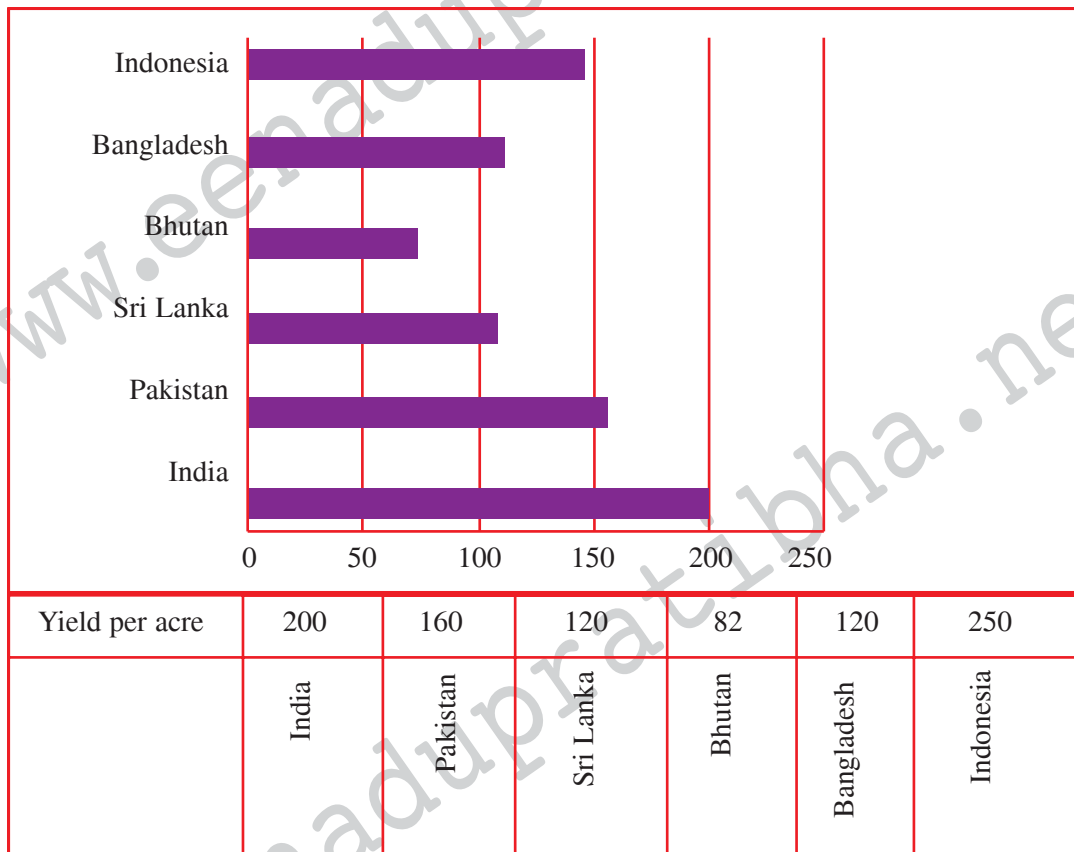
- 1) 1.1 : 1
 2) 1 : 1.1
 3) 0.9 : 1
 4) 1 : 1

66. How many common tangents can be drawn on two circles touching, each other externally?
 1) Infinity 2) 0 3) 2 4) 3
67. If $\tan \theta + \frac{1}{\tan \theta} = 2$, then value of $\tan^2 \theta + \frac{1}{\tan^2 \theta}$ is equal to
 1) 6 2) 4 3) 2 4) 3
68. From 40 m away from the foot of a tower, the angle of elevation is 60° . What is the height of the tower?
 1) $\frac{120}{\sqrt{3}}$ 2) $\frac{60}{\sqrt{3}}$ 3) $\frac{50}{\sqrt{3}}$ 4) $\frac{130}{\sqrt{3}}$
69. If the price of sugar increases by 20%, one can, buy 2 kg less for ₹ 50, what is the amount of sugar that could be bought before price hike?
 1) 10 kg 2) 12 kg 3) 14 kg 4) 16 kg

70. In how many years will a sum of ₹ 800 at 10% per annum compounded semi - annually become ₹ 926.10?
- 1) $2\frac{1}{2}$ years 2) 3 years 3) 2 years 4) $1\frac{1}{2}$ years
71. The number of coins of radius 0.75 cm and thickness 0.2 cm to be melted to make a right circular cylinder of height 8 cm and base radius 3 cm is
- 1) 500 2) 600 3) 460 4) 640
72. Pushpa is twice as old as Rita was 2 years ago. If difference between their present ages is 2 years, how old is Pushpa today?
- 1) 6 years 2) 8 years 3) 10 years 4) 12 years

Directions(73 – 75): Study the following bar graph carefully and answer the given questions.

The following bar graph shows the yield per acre of six countries in South Asia



73. The yield per acre of India is what percent more than that of Pakistan?
- 1) 25% 2) 50% 3) 75% 4) 100%
74. If the yield per acre is arranged in ascending order, then what is the difference between the yield per acre of first three countries and last three countries?
- 1) 168 2) 172 3) 182 4) 190
75. The yield per acre produced by Bangladesh is what percent of the total number of yield per acre produced by all countries?
- 1) 14% 2) 13.5% 3) 14.8% 4) 16%

ENGLISH LANGUAGE

Directions(76 – 78): Read the passage carefully and answer the questions given below it. Certain words/ phrases have been given in **bold** to help you locate them - while answering some of the questions.

The villager has customarily been very conservative in his attitude and approach. He is reluctant to change his traditional way of thinking and doing things. His attitude, in many aspects, is : '**home - made is best**'. For instance, most cattle - farmers in the villages, prefer to feed their cows and buffaloes with a home - mix comprising local oil - seeds like mustard or cotton seeds, pulses, jaggery, salt etc. It takes numerous visits,hard - convincing, daily trials and experience to convince the rural cattle farmer that compound feeds, scientifically formulated, improve the yields of milk, without any incremental costs. The age old values and attitude towards caste, creed, women, time, and money take time to change. The villagers has traditionally been a believer in the philosophy of 'Karma' or 'fate'. He has found it more convenient to blame his economic destitution, poor living conditions and straitened social status on 'bhagya', 'karma' or 'fate'. The security that the villagers find in the 'status quo', acts as a discentive to change and experiment, in the short run. Many of these antiquated attitude, value-system and outlooks are changing, due to improved levels of awareness and education. However, the rate of change is sluggish. Attitudes have fossilised over the centuries, do take time to change.

76. When will you call a person conservative in his attitude and approach?

- 1) When he likes to try out every new idea before accepting it.
- 2) When he sticks to old ways of thinking and doing.
- 3) When he solves his problems through tried out methods.
- 4) When he imputes motives to change-agents.

77. What does the phrase 'home-made is best' imply?

- 1) The best should not be discarded.
- 2) Change for the sake of change is not good.
- 3) People should go in for swadeshi because it is home-made.
- 4) Whatever is being practiced is better than what is new.

78. What is the best method to convince the average villager about the superiority of a new cattle-feed?

- | | |
|----------------|---------------------------------------|
| 1) Home visits | 2) Field demonstration |
| 3) Discussion | 4) Distribution of related literature |

79. In this question, four words are given out of which one is correctly spelt. Find the correctly spelt word.

- | | | | |
|----------------|----------------|----------------|---------------|
| 1) connaisseur | 2) conoisiseur | 3) connoisseur | 4) connoiseur |
|----------------|----------------|----------------|---------------|

Directions (80–83): In these questions, four alternatives are given for the idiom/phrase given in **bold**. Choose the alternative which best experience the meaning of the idiom/phrase in **bold**

80. Fit like a glove

- | | |
|--------------------------|-------------------------------|
| 1) to fit snugly | 2) something tight and sticky |
| 3) soft and easy to ware | 4) difficult to hold |

81. Pull a long face

- | | |
|------------------------|---------------------------|
| 1) to make fun | 2) to look sad |
| 3) to irritate someone | 4) to full someone's face |

82. Cat nap

- | | |
|--|---------------------|
| 1) take a long sleep | 2) sleep like a cat |
| 3) make a snoring sound while sleeping | 4) to sleep briefly |

