

# MAHARAJA RANJIT SINGH AFPI – 2018

## \*\*\* ENGLISH \*\*\*

**Direction (Q. No. 1 to 7) :** In these questions, out of the four alternatives, choose the one which best expresses the meaning of the given word.

**Q.1** Banal

- (1) Peculiar (2) Ordinary  
(3) Curious (4) Unoriginal

**Q.2** Analogous

- (1) Unsuitable (2) Uncritical  
(3) Similar (4) Disproportionate

**Q.3** Alleviate

- (1) Eradicate (2) Remove  
(3) Understand (4) Lessen

**Q.4** Hiatus

- (1) Sullen (2) Gap  
(3) Verbose (4) Noise

**Q.5** Avaricious

- (1) Greedy (2) Jealous  
(3) Angry (4) Confused

**Q.6** Inscrutable

- (1) Strange (2) Mysterious  
(3) Marvelous (4) Sublime

**Q.7** Remedial

- (1) Punitive (2) Stringent  
(3) Corrective (4) Strict

**Direction (Q. No. 8 to 12) :** Fill in the blanks with a word or group of words from amongst the choices given.

**Q.8** The guilt or innocence of the \_\_\_\_\_ will be decided by a court of law.

- (1) killer (2) convict  
(3) criminal (4) accused

**Q.9** \_\_\_\_\_ will remember Maharaja Ranjit Singh as a truly great man.

- (1) future (2) time  
(3) probity (4) posterity

**Q.10** His behavior is worthy of \_\_\_\_\_ by the youngsters.

- (1) following (2) trial  
(3) emulation (4) exploration

**Q.11** No one really likes his \_\_\_\_\_ jokes which come so abundantly and unexpectedly.

- (1) mirthful (2) hilarious

- (3) funny (4) outrageous

**Q.12** Though fond of many acquaintances, I desire \_\_\_\_\_ only with a few.

- (1) introduction (2) cordiality  
(3) intimacy (4) encounter

**Direction (Q. No. 13 to 16) :** In these questions, out of the four alternatives, choose the one which can be substituted for the given words/sentences.

**Q.13** A person who believes in the total abolition of war.

- (1) Pacifist (2) Abolitionist  
(3) Optimist (4) Humanist

**Q.14** A ruler who has total power.

- (1) Aristocratic (2) Atheist  
(3) Autocrat (4) Agnostic

**Q.15** A person who is devoted to the welfare of women.

- (1) Womaniser (2) Feminist  
(3) Effeminate (4) Activist

**Q.16** A person who thinks of the future with wisdom and imagination.

- (1) Futuristic (2) Visionary  
(3) Wise man (4) Politician

**Q.17** Find the correctly spelt word out of the four words given.

- (1) Celandar (2) Calender  
(3) Calendar (4) Callender

**Q.18** Find the correctly spelt word out of the four words given.

- (1) Occurence (2) Occuraence  
(3) Occurance (4) Occurrence

**Direction (Q. No. 19 to 23) :** Four alternatives are given for the idiom/phrase in italics in the sentence. Choose the one which best expresses the meaning of the idiom/phrase

**Q.19** If I *were* you, I would report the matter at once

- (1) am (2) was  
(3) be (4) no improvement

**Q.20** I am surprised that *he dares speak* in such a tone to his father.

- (1) he dares to speak (2) he dare to speak  
(3) he dare speak (4) no improvement

**Q.21** His *access to* the throne was a turning point in our history.

- (1) acquisition of (2) accession to  
(3) accession of (4) no improvement

**Q.22** He has a bee in the bonnet about moving to Dubai.

- (1) make enquiries
- (2) ask suggestions
- (3) carry an idea constantly
- (4) putting baggage in the bonnet

**Q.23** The company is making money by keeping its fingers on the pulse.

- (1) checking the pulse
- (2) knowing the correct pulse rate
- (3) constantly aware of the most recent developments
- (4) constantly keeping pulse checked

**Direction (Q. No. 24 to 27) :** Sentences are given with blanks to be filled in with an appropriate word. Choose the correct alternative out of the four.

**Q.24** With the increase in population, houses \_\_\_\_\_ all over the city.

- (1) established
- (2) mushroomed
- (3) consolidated
- (4) elevated

**Q.25** He made an astounding \_\_\_\_\_ that I could be bought by money.

- (1) insinuation
- (2) fixation
- (3) aggrandizement
- (4) dilapidation

**Q.26** He bore his disappointment with \_\_\_\_\_

- (1) embarrassment
- (2) persistence
- (3) disenchantment
- (4) fortitude

**Q.27** Within two years the struggle \_\_\_\_\_ by continuous outside support

- (1) fuddled
- (2) hacked
- (3) diminished
- (4) burgeoned

**Direction (Q. No. 28 to 29) :** Some of the sentences have errors and some have none. Find out which part (1), (2) or (3) of a sentence has an error. If there is no error, select (4).

**Q.28** He collected his bags (1) / said good bye to us (2) / and left for home immediately (3) / no error (4)

**Q.29** It would be more better (1) / if you could paint (2) / the gate green (3) / no error (4)

**Direction (Q. No. 30 to 32) :** Reorder P,Q,R,S to make a meaningful sentence.

**Q.30** While it was true that

P: I had

Q: to invest in industry

R: some land and houses

S: I did not have ready cash

- (1) PQRS
- (2) SQPR
- (3) QRPS
- (4) PSRQ

**Q.31** The people decided

P: they were going

Q: how much

R: to spend

S: on the construction of the school building

- (1) QPRS
- (2) PSQR
- (3) QSPR
- (4) SPRQ

**Q.32** The boy

P: in the competition

Q: who was wearing spectacles

R: won many prizes

S: held in our college

- (1) RPSQ
- (2) SQRP
- (3) QRPS
- (4) SPRQ

**Direction (Q. No. 33 to 40) :** In these questions, you have two brief passages with 4 questions following each passage. Read the passage carefully and choose the best answer out of the four alternatives.

**PASSAGE – 1 :** The Buddha possessed a breadth of view which was very uncommon in his age. He taught his followers that the search for truth was the noblest human pursuit. He advised his disciples to test everything by logic and not to accept anything out of regard for any old writer or religious leader or tradition. If they accepted anything without logic it would hinder the process of finding the truth. Intolerance seemed to him the greatest enemy of truth and religion. He asked his disciples not to be displeased with even those who spoke against him or his order. If they became angry at the criticism of their teacher, they would not be able to judge for themselves whether the criticism was correct or not. They would not know truth and would suffer spiritual loss. He wanted that everything should be accepted by patient sifting of opinions and that the people should rebuild their lives on the foundation of reason. He spoke with scorn of all those people who professed to have secret truths as he held that secrecy belonged to false doctrine not openness.

**Q.33** The word 'possessed' means

- (1) Owned
- (2) Viewed
- (3) Occupied
- (4) Liked

**Q.34** What was the Buddha's advice to his followers -

- (1) The noblest human pursuit
- (2) The search for the truth
- (3) Not to accept anything unreasonable
- (4) To test everything without logic

**Q.35** How should the people accept everything -

- (1) Out of regard
- (2) By patient sifting of opinions
- (3) By hindering the process of finding truth
- (4) By not getting angry

**Q.36** Intolerance to criticism results in -

- (1) Spiritual loss
- (2) Making the greatest enemy of truth and religion
- (3) Making one angry at the criticism
- (4) Judging whether criticism is correct or not

**PASSAGE – 2 :** “Is it good?” asked Mrs. Thompson, seeing with what a keen relish the food was taken. The child paused with the cup in her hand, and answered with a look of gratitude that awoke to new life old human feelings which had been slumbering in her heart for half a score of years.

“We’ll keep her a two or two longer; she is so weak and helpless,” said Mrs. Joe Thompson.

“She’ll be so much in your way,” said Joe.

“I sha’nt mind that for a day or two. Poor thing.”

What light and blessing did that sick and helpless child bring to the home of Joe Thompson, the poor wheelwright! It had been dark and cold and miserable there for a long time just because his wife had nothing to love and care for and so became sore, irritable, ill-tempered and self-afflicting in the desolation of her woman’s nature. Now the sweetness of that sick child, looking ever to her in love, patience, and gratitude was as honey to her soul and she carried her in her heart as well as in her arms, a precious burden. As for Joe Thompson, there was not a man in the entire neighborhood who drank daily of a more precious wine of life than he. An angel had come into his house, disguised as a sick, helpless and miserable child and filled all its dreary chambers with the sunshine of love.

- Q.37** The house of the wheelwright had been dark and cold and miserable for a long time because
- (1) They were a childless couple
  - (2) Mrs. Thompson was self-absorbed
  - (3) They were sore and irritated
  - (4) None of these

- Q.38** Half score of years is
- (1) Twenty years
  - (2) Five years
  - (3) Fifteen years
  - (4) A decade

- Q.39** Antonym of ‘relish’ is
- (1) Dread
  - (2) Please
  - (3) Anticipate with pleasure
  - (4) Flavourful

- Q.40** ‘Burden’ signifies
- (1) Unwanted guests
  - (2) Sick and poor
  - (3) Miserable children
  - (4) Heavy load which is difficult to bear

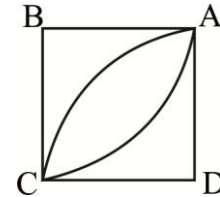
**\*\*\* MATHEMATICS \*\*\***

- Q.41** Lalit takes twice as long as to row a distance against the stream as to row the same distance in favour of the stream. The ratio of the speed of the boat (in still water) and the stream is:
- (1) 2 : 1
  - (2) 3 : 1

- (3) 3 : 2
- (4) 4 : 3

- Q.42** Find last two digits of expansion of  $(2^{12n} - 6^{4n})$ , where n is any positive integer.
- (1) 06
  - (2) 00
  - (3) 08
  - (4) 40

**Q.43** In a square of side 4 cm, two quadrants of a circle are drawn with centers on vertices B and D and radius equals to the side of square. Then the area of petal AC is:



- (1) 12 cm<sup>2</sup>
- (2) 7.76 cm<sup>2</sup>
- (3) 9.14 cm<sup>2</sup>
- (4) 6.4 cm<sup>2</sup>

- Q.44** If the diameter of a protractor is 17, then its perimeter will be:
- (1)  $\frac{306}{7}$
  - (2)  $\frac{307}{7}$
  - (3)  $\frac{392}{7}$
  - (4) 300

- Q.45** In measuring the sides of a rectangle, length is taken 5% in excess and the width 4% in deficit. Find the error percent in area calculated from the measurement.
- (1)  $\frac{3}{5}$  % excess
  - (2)  $\frac{2}{5}$  % excess
  - (3)  $\frac{1}{3}$  % excess
  - (4)  $\frac{4}{5}$  % excess

- Q.46** In the following question given below, two signs in the equation given have been interchanged. Find out these two signs to make the equation correct:  
 $15 \times 8 \div 60 - 6 + 25 = 135$
- (1) – and +
  - (2) – and ÷
  - (3) x and ÷
  - (4) x and +

- Q.47** A number is first reduced by 10% and then it is again increased by 10%, then the number is changed by:
- (1) 2% increase
  - (2) No change
  - (3) 1% decrease
  - (4) none of these

- Q.48** Pointing to Kapil, Shilpa said, "His mother's brother is father of my son Ashish." How is Kapil related to Shilpa?
- (1) Son
  - (2) Nephew
  - (3) Brother
  - (4) None of these

- Q.49** Which option is placed at the sign of interrogation to complete the matrix?

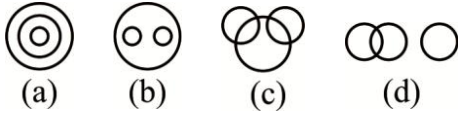
A	M	B	N
R	C	S	D
E	U	F	?

- (1) G
- (2) R
- (3) T
- (4) V

**Q.50** The infinite sum of  $1 + \left[ \frac{4}{7} + \frac{9}{7^2} + \frac{16}{7^3} + \frac{25}{7^4} + \dots \right]$

- (1)  $\frac{27}{14}$  (2)  $\frac{21}{13}$   
 (3)  $\frac{49}{27}$  (4)  $\frac{256}{147}$

**Q.51** Which of the following diagrams correctly illustrates the relationship among the classes: Carrot, Food, and Vegetable?



- (1) (a) (2) (b)  
 (3) (c) (4) (d)

**Q.52** The ratio of volume of cube to that of sphere which exactly fit inside the cube is:

- (1)  $6 : \pi$  (2)  $\pi : 6$   
 (3)  $\pi : 12$  (4)  $12 : \pi$

**Q.53** How many times in a day, the two hands of clock coincide?

- (1) 11 (2) 12  
 (3) 22 (4) 24

**Q.54** Few years ago on 31st January on her 26<sup>th</sup> birthday a lady laid a baby. Now what's the sum of their ages?

- (1) 37 (2) 38  
 (3) 39 (4) 43

**Q.55** What is the sum of all two-digit numbers that give a remainder of 3 when they are divided by 7?

- (1) 666 (2) 676  
 (3) 683 (4) 777

**Q.56** To do a certain work B would take three times as long as A and C together and C twice as long as A and B together. The three men together complete the work in 10 days. How long would each take separately?

- (1) A = 22, B = 42, C = 32  
 (2) A = 24, B = 42, C = 32  
 (3) A = 24, B = 40, C = 30  
 (4) A = 22, B = 40, C = 32

**Q.57** In a 100 m race, A covers the distance in 36 seconds and B in 45 seconds. In this race, A beats B by:

- (1) 20 m (2) 25 m  
 (3) 22.5 m (4) 9 m

**Q.58** If the H.C.F of 200 and 50 can be expressed in the form  $200 \times 50 + 50Z$ , then find Z.

- (1) 200 (2) - 199  
 (3) 199 (4) 210

**Q.59** The value of  $\frac{2^{(m+1)} \times 3^{(2m-n)} \times 5^{(m+n)} \times 6^n}{6^m \times 10^{(n+2)} \times 15^m}$  is equal to:

- (1) 50 (2)  $\frac{1}{25}$   
 (3)  $\frac{1}{50}$  (4)  $\frac{1}{5}$

**Q.60** A walks 10 metres in front and 10 metres to the right. Then every time turning to his left, he walks 5, 15 and 15 metres respectively. How far is he now from his starting point?

- (1) 5 m (2) 10 m  
 (3) 15 m (4) 0 m

**Q.61** If a carton containing a dozen mirrors is dropped, which of the following cannot be the ratio of the broken mirror to the un-broken mirror?

- (1) 2 : 1 (2) 5 : 7  
 (3) 5 : 1 (4) 3 : 2

**Q.62** What is the binary number equivalent of the decimal number 32.25?

- (1) 100010.10 (2) 100000.10  
 (3) 100010.01 (4) 100000.01

**Q.63** If  $R = \frac{30^{65} - 29^{65}}{30^{64} + 29^{64}}$ , then

- (1)  $0 < R \leq 0.1$  (2)  $0.1 < R \leq 0.5$   
 (3)  $0.5 < R \leq 1.0$  (4)  $R > 1.0$

**Q.64** If a, aq, aq<sup>2</sup> are the sides of triangle, where a and q are real numbers and  $q \geq 1$ , which of the following values of q is not possible?

- (1) 1 (2) 2  
 (3) 1.5 (4) None of these

**Q.65** In a certain code language 'food is good' is written as 'ho na ta', 'eat food regularly' is written as 'sa ta la' and 'keep good health' is written as 'da na ja'. How is 'eat' written in that code language?

- (1) sa (2) la  
 (3) sa or la (4) Data inadequate

**Q.66** Simplify  $\frac{1}{2 + \frac{1}{3 + \frac{1}{1 + \frac{1}{4}}}}$

- (1)  $\frac{19}{43}$  (2)  $\frac{7}{43}$   
 (3)  $\frac{43}{19}$  (4)  $\frac{1}{19}$

**Q.67** In a certain code language:-

- (A) "pit na som" means "Bring me water"  
 (B) "na jo tod" means "Water is life"  
 (C) "jo lin kot" means "Life and death"

Which of the following represents "is" in that language?

- (1) jo (2) na  
 (3) tod (4) lin

**Q.68** The equation  $3x - 2y = 9$  has:

- (1) One solution (2) No solution  
 (3) Infinite solution (4) None of these

**Q.69** A woman says, "If you reverse my own age, the figure represent my husband's age. He is, of course, senior to me and the difference between our ages is one eleventh of their sum. The age of woman is:-

- (1) 23 years (2) 35 years

- (3) 45 years (4) None of these

**Q.70** If  $\cos(9A) = \sin(A)$  and  $9A < 90^\circ$ , then the value of  $\tan(5A)$  is:

- (1)  $\frac{1}{\sqrt{3}}$  (2) 1  
(3)  $\sqrt{3}$  (4) 0

**Q.71** In a row of ladies Manorma is 20<sup>th</sup> from right and Kanta is 10<sup>th</sup> from left. When they inter-change their positions Manorma became 25<sup>th</sup> from right. What is the total number of ladies?

- (1) 35 (2) 34  
(3) 44 (4) 30

**Q.72** The probability of 53 Sundays in a leap year is:

- (1)  $\frac{53}{366}$  (2)  $\frac{53}{365}$   
(3)  $\frac{1}{7}$  (4)  $\frac{2}{7}$

**Q.73** In a dairy, there are 60 cows and buffalos. The number of cows is twice that of buffalos. Buffalo X ranked seventeenth in terms of milk delivered. If there are 9 cows ahead of buffalo X, how many buffalos are after buffalo X in rank in terms of milk delivered?

- (1) 10 (2) 11  
(3) 12 (4) 13

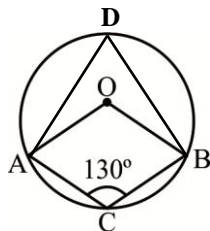
**Q.74** Which set of data has a mean of 15, a range of 22, a median of 14, and a mode of 14?

- (1) 14, 22, 15, 15, 9 (2) 25, 15, 14, 3, 7  
(3) 3, 14, 19, 25, 14 (4) 14, 22, 14, 15, 4

**Q.75**  $\sqrt{(a-b)^2} + \sqrt{(b-a)^2}$  is:

- (1) Always zero  
(2) Never zero  
(3) Positive if and only if  $a > b$   
(4) Positive only if  $a \neq b$

**Q.76** O is the centre of circle. If  $\angle ACB = 130^\circ$ , find smaller angle  $\angle AOB$ ?



- (1)  $50^\circ$  (2)  $100^\circ$   
(3)  $130^\circ$  (4)  $110^\circ$

**Q.77** There are 50 numbers. Each number is subtracted from 53 and the mean of the numbers so obtained is found to be 3.5. The mean of the given number is:

- (1) 48.9 (2) 49.5  
(3) 52.5 (4) 56.5

**Q.78** If  $(x + y + z) = 0$  then  $\frac{x^2}{yz} + \frac{y^2}{zx} + \frac{z^2}{xy}$  is equal to:

- (1) 3 (2) 27  
(3) 1 (4) 0

**Q.79** The sum of all two digit numbers each of which leaves remainder 3 when divided by 5 is:

- (1) 952 (2) 999  
(3) 1064 (4) 1120

**Q.80** Find the sum of an A.P, Whose first term is a, second term is b and the last term is c.

- (1)  $\frac{(a+c)(b+c-a)}{b-a}$  (2)  $\frac{(a+c)(b+c-a)}{2(b-a)}$   
(3)  $\frac{(a+c)(b+c-2a)}{2(b-a)}$  (4)  $\frac{(a+c)(b+c+a)}{2(b-a)}$

**Q.81** Five bells begin to toll together and toll respectively at intervals of 6, 5, 7, 10 and 12 seconds. How many times will they toll together in one hour excluding the one at the start?

- (1) 7 (2) 8  
(3) 9 (4) 10

**Q.82** Find minimum value of  $\sec^2\theta + \cos^2\theta$ .

- (1) 1 (2) 2  
(3) 0 (4) None of these



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**Q.83** Which of the following does not fit into the series 258, 130, 66, 34, 18, 8, and 6?

- (1) 34 (2) 8  
(3) 66 (4) 258

**Q.84** Solve :  $\frac{1}{x^2} + \frac{1}{y^2} = \frac{61}{900}$ ,  $xy = 30$ , solve for x, given x is positive only.

- (1) 5 (2) 6  
(3) Either 5 or 6 (4) None of these

**Q.85** 7 friends agree to divide their lunch bill in a restaurant. Six of them share the bill while seventh pays a 15% tip. If the person paying the tip spends 15 paise less than each of his friends, then the total bill without the tip is:

- (1) Rs. 9 (2) Rs. 6  
(3) Rs. 15 (4) Rs. 12

**Q.86** An A.P. has 23 terms, the sum of middle three terms is 144, and the sum of last three terms is 264. What is the 16<sup>th</sup> term?

- (1) 48 (2) 64  
(3) 68 (4) 88



**Q.87** Value for  $(1) + (1 + 2) + (1 + 2 + 3) + \dots + (1 + 2 + 3 + 4 + \dots + n)$

- (1)  $\frac{n(n+1)}{2}$  (2)  $\frac{(n-1)n}{2}$   
 (3)  $n^2$  (4)  $\frac{n(n+1)(2n+4)}{12}$

**Q.88** Which term of an A.P. 3, 15, 27, 39, ..... will be 132 more than its 54<sup>th</sup> term?

- (1) 61<sup>st</sup> (2) 63<sup>rd</sup>  
 (3) 65<sup>th</sup> (4) None of these

**Q.89** Which of the following statements holds always?

- (1) Every rectangle is a square  
 (2) Every parallelogram is a trapezium  
 (3) Every rhombus is a square  
 (4) Every parallelogram is a rectangle

**Q.90** Roots of the equation  $(x - a)(x - b) + (x - b)(x - c) + (x - c)(x - a) = 0$  are:

- (1) Positive (2) Negative  
 (3) Real (4) Imaginary

**Q.91** The post office is to the east of the school, while my house is to the south of the school. The market is to the north of the post office. If the distance of the market from the post office is equal to the distance of my house from the school, in which direction is the market with respect to my school?

- (1) North-west (2) North-East  
 (3) North (4) East

**Q.92** If  $32^{(x-2)} = 64 \div 8^x$ , the value of x is:

- (1)  $\frac{1}{2}$  (2)  $\frac{1}{4}$   
 (3)  $\frac{1}{8}$  (4) 2

**Q.93** 1% of 1% is equal to:-

- (1)  $10^2$  (2)  $10^{-1}$   
 (3)  $10^{-2}$  (4)  $10^{-4}$

**Q.94** If  $x = y \cos\left[\frac{2\pi}{3}\right] = z \cos\left[\frac{4\pi}{3}\right]$ , then  $xy + yz + zx = ?$

- (1) -1 (2) 0  
 (3) 1 (4) 2

**Q.95** If  $(a + b + c)^2 = 3(ab + bc + ca)$ , then which of the following is true?

- (1)  $a \neq b \neq c$  (2)  $a > b > c$   
 (3)  $a < b < c$  (4)  $a = b = c$

**Q.96** In a certain code CORDIAL is written as 'SPDCMBJ'. How is SOMEDAY written in that code?

- (1) NPTDEBZ (2) NPTFZBE  
 (3) TPNDZBE (4) NPTDZBE

**Q.97** If three equal circles of radius 3 cm each touch each other, then area of shaded portion is:

- (1)  $\frac{\sqrt{3}}{2}(2 - \pi) \text{ cm}^2$  (2)  $\frac{9}{2}(2\sqrt{3} - \pi) \text{ cm}^2$   
 (3)  $\frac{9}{2}(2\sqrt{3} + \pi) \text{ cm}^2$  (4)  $\frac{3}{2}(\sqrt{3} - \pi) \text{ cm}^2$

**Q.98** The mean age of combined group of man and woman is 35 years. If the mean age of man is 36 years and that of woman is 32 years, then percentage of man and woman in the group is:-

- (1) Men = 75%, Women = 25%  
 (2) Men = 70%, Women = 30%  
 (3) Men = 50%, Women = 50%  
 (4) Men = 25%, Women = 75%

**Q.99** The inequality of  $b^2 + 8b \geq 9b + 14$  is correct for

- (1)  $b \geq 5, b \leq -5$  (2)  $b \geq 5, b \leq -4$   
 (3)  $b \geq 4, b \leq -4$  (4)  $b \geq 6, b \leq -6$

**Q.100** P, Q, S and R are points on the circumference of a circle of radius r, such that PQR is an equilateral triangle and PS is a diameter of the circle. What is the perimeter of the quadrilateral PQSR?

- (1)  $2r(1 + \sqrt{3})$  (2)  $2r(2 + \sqrt{3})$   
 (3)  $r(2 + \sqrt{3})$  (4)  $2 + \sqrt{3}$

