

MAHARAJA RANJIT SINGH AFPI

14 JANUARY 2018

Marks: 400

Time: 120 minutes

ROLL NO.: _____	NAME: _____
SIGNATURE: _____	DATE / TIME: _____

INSTRUCTIONS FOR THE CANDIDATES

1.	Before attempting the paper carefully read all the Instructions & Examples given on Side 1 of Answer Sheet (OMR Sheet) supplied separately.
2.	At the start of the examination, please ensure that all pages of your Test booklet are properly printed; your Test booklet is not damaged in any manner and contains 100 questions. In case of any discrepancy the candidate should immediately report the matter to the invigilator for replacement of Test Booklet. No claim in this regard will be entertained at the later stage.
3.	An OMR Answer Sheet is being provided separately along with this Test booklet. Please fill up all relevant entries like Roll Number, Test Booklet Code etc. in the spaces provided on the OMR Answer Sheet and put your signature in the box provided for this purpose.
4.	Make sure to fill the correct Test booklet code on Side 2 of the OMR Answer Sheet. If the space for the Booklet Code is left blank or more than one booklet code is indicated therein, it will be deemed to be an incorrect booklet code & Answer Sheet will not be evaluated. The candidate himself will be solely responsible for all the consequences arising out of any error or omission in writing the test booklet code.
5.	This Test Booklet consists of 08 pages containing 100 questions. Against each question four alternative choices (1), (2), (3), (4) are given, out of which one is correct. Indicate your choice of answer by darkening the suitable circle with BLACK/BLUE pen in the OMR Answer Sheet supplied to you separately. Use of Pencil is strictly prohibited. More than one answer indicated against a question will be deemed as incorrect response.
6.	The maximum marks are 400. Each question carries four marks. There will be negative marking of minus one (-1) for each incorrect answer.
7.	Do not fold or make any stray marks on the OMR Answer Sheet. Any stray mark or smudge on the OMR Answer Sheet may be taken as wrong answer. Any damage to OMR Answer Sheet may result in disqualification of the candidate.
8.	On completion of the test, candidate must hand over the Test Booklet and OMR Answer Sheet to the invigilator on duty in the room/hall.
9.	Use of Mobile phones, wrist watches and calculators etc. are not allowed.
10.	Keep all your belongings outside the Examination hall. Do not retain any paper except the ADMIT CARD.

Directions (Question 1 to 7). In these questions, out of the four alternatives, choose the one which best expresses the meaning of the given word.	
1	Analogous (1) Unsuitable (2) uncritical (3) similar (4) disproportionate
2	Remedial (1) punitive (2) stringent (3) corrective (4) strict
3	Inscrutable (1) strange (2) mysterious (3) marvelous (4) sublime
4	Avaricious (1) greedy (2) jealous (3) angry (4) confused
5	Hiatus (1) sullen (2) gap (3) verbose (4) noise
6	Banal (1) peculiar (2) ordinary (3) curious (4) unoriginal
7	Alleviate (1) eradicate (2) remove (3) understand (4) lessen
Directions (Question 8 to 12). Fill in the blanks with a word or group of words from amongst the choices given.	
8	Though fond of many acquaintances, I desire _____ only with a few. (1) introduction (2) cordiality (3) intimacy (4) encounter
9	The guilt or innocence of the _____ will be decided by a court of law. (1) killer (2) convict (3) criminal (4) accused
10	His behavior is worthy of _____ by the youngsters. (1) following (2) trial (3) emulation (4) exploration
11	_____ will remember Maharaja Ranjit Singh as a truly great man. (1) future (2) time (3) probity (4) posterity
12	No one really likes his _____ jokes which come so abundantly and unexpectedly. (1) mirthful (2) hilarious (3) funny (4) outrageous
Directions (Question 13 to 16). In these questions, out of the four alternatives, choose the one which can be substituted for the given words/sentences.	
13	A ruler who has total power. (1) aristocratic (2) atheist (3) autocrat (4) agnostic
14	A person who thinks of the future with wisdom and imagination. (1) futuristic (2) visionary (3) wise man (4) politician
15	A person who believes in the total abolition of war. (1) pacifist (2) abolitionist (3) optimist (4) humanist
16	A person who is devoted to the welfare of women (1) womaniser (2) feminist (3) effeminate (4) activist
Directions (Question 17 to 18). Find the correctly spelt word out of the four words given	
17	(1) occurence (2) occuraence (3) occurance (4) occurrence
18	(1) calendar (2) calendrar (3) calendar (4) callender
Directions (Question 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	
19	The company is making money by <i>keeping its fingers on the pulse</i> (1) checking the pulse (2) knowing the correct pulse rate (3) constantly aware of the most recent developments (4) constantly keeping pulse checked
20	He has <i>a bee in the bonnet</i> about moving to Dubai. (1) make enquiries (2) ask suggestions (3) carry an idea constantly (4) putting baggage in the bonnet
21	If I <i>were</i> you, I would report the matter at once (1) am (2) was (3) be (4) no improvement
22	His <i>access to</i> the throne was a turning point in our history. (1) acquisition of (2) accession to (3) accession of (4) no improvement

23	I am surprised that <i>he dares speak</i> in such a tone to his father. (1) he dares to speak (2) he dare to speak (3) he dare speak (4) no improvement
Directions (Question 24 to 27). Sentences are given with blanks to be filled in with an appropriate word. Choose the correct alternative out of the four.	
24	With the increase in population, houses _____ all over the city. (1) established (2) mushroomed (3) consolidated (4) elevated
25	Within two years the struggle _____ by continuous outside support (1) fuddled (2) hacked (3) diminished (4) burgeoned
26	He made an astounding _____ that I could be bought by money. (1) insinuation (2) fixation (3) aggrandizement (4) dilapidation
27	He bore his disappointment with _____ (1) embarrassment (2) persistence (3) disenchantment (4) fortitude
Directions (Question 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)	
28	It would be more better (1)/ if you could paint (2)/ the gate green (3)/ no error (4)
29	He collected his bags (1) / said good bye to us (2) / and left for home immediately (3)/ no error (4)
Directions (Question 30 to 32). Reorder P,Q,R,S to make a meaningful sentence.	
30	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
31	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
32	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
Directions (Question 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.	
<u>PASSAGE – 1</u>	
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.	
33	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
34	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
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
36	The word 'possessed' means (1) Owned (2) Viewed (3) Occupied (4) Liked

PASSAGE – 2

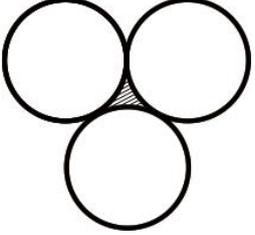
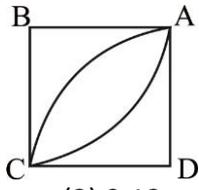
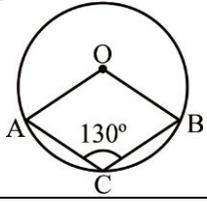
“Is it good?” asked Mrs Thompson, seeing with what a keen relish the food was taken. The child paused with the cup in her hand, and answered with a look of gratitude that awoke to new life old human feelings which had been slumbering in her heart for half a score of years. “We’ll keep her a two or two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

37	Antonym of ‘relish’ is (1) Dread (2) Please (3) Anticipate with pleasure (4) Flavourful
38	Half score of years is (1) twenty years (2) five years (3) fifteen years (4) a decade
39	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
40	‘Burden’ signifies (1) unwanted guests (2) sick and poor (3) miserable children (4) heavy load which is difficult to bear
41	Simplify $2 + \frac{1}{3 + \frac{1}{1 + \frac{1}{4}}}$ (1) $\frac{19}{43}$ (2) $\frac{7}{43}$ (3) $\frac{43}{19}$ (4) $\frac{1}{19}$
42	Find the last two digits of the expansion of $(2^{12n} - 6^{4n})$ when n is any positive integer. (1) 06 (2) 00 (3) 08 (4) 40
43	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) $b \geq 6, b \leq -6$
44	In measuring the sides of a rectangle, one side is taken 5% in excess and the other 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
45	Which of the following does not fit into the series 258, 130, 66, 34, 18, 8, 6 (1) 34 (2) 8 (3) 66 (4) 258
46	In a certain code CORDIAL is written as ‘SPDCMBJ’. How is SOMEDAY written in that code? (1) NPTDEBZ (2) NPTFZBE (3) TPNDZBE (4) NPTDZBE
47	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
48	If the diameter of a protractor is 17, then its perimeter will be (1) $306/7$ (2) $307/7$ (3) $392/7$ (4) 300

49	Find the sum of an AP, 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) $\frac{(a+c)(b+c+a)}{2(b-a)}$
50	If $\cos 9A = \sin A$ and $9A < 90^\circ$, then the value of $\tan 5A$ is (1) $1/\sqrt{3}$ (2) 1 (3) $\sqrt{3}$ (4) 0
51	$(1)+(1+2)+(1+2+3)+\dots+(1+2+3+4+\dots+n) =$ (1) $n(n+1)/2$ (2) $(n-1)n/2$ (3) n^2 (4) $\frac{n(n+1)(2n+4)}{12}$
52	What is the binary number equivalent of the decimal number 32.25 ? (1) 100010.10 (2) 100000.10 (3) 100010.01 (4) 100000.01
53	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 naja'. How is eat written in that language? (1) sa (2) la (3) sa or la (4) Data inadequate
54	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
55	The infinite sum $1 + (\frac{4}{7^2}) + (\frac{9}{7^3}) + (\frac{16}{7^3}) + (\frac{25}{7^4}) + \dots$ equals (1) $\frac{27}{14}$ (2) $\frac{21}{12}$ (3) $\frac{49}{27}$ (4) $\frac{256}{147}$
56	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
57	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) $R > 1.0$
58	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) $2+\sqrt{3}$
59	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 \div (3) x and \div (4) x and +
60	If the H.C.F of 200 and 50 can be expressed in the form $200x + 50Z$ then find Z (1) 200 (2) -199 (3) 199 (4) 210
61	In a certain code language:- (A) "pit nasom" means "Bring me water" (B) "najotod" means "Water is life" (C) "jolinkot" means "Life and death" Which of the following represents "is" in that language? (1) jo (2) na (3) tod (4) lin
62	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
63	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 th term? (1) 48 (2) 64 (3) 68 (4) 88
64	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
65	Which term of an A.P. 3, 15, 27, 39, will be 132 more than its 54 th term? (1) 61 st (2) 63 rd (3) 65 th (4) None of these

66	1% of 1% is equal to:- (1) 10^2 (2) 10^{-1} (3) 10^{-2} (4) 10^{-4}												
67	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												
68	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												
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												
70	How many times in a day, the two hands of a clock coincide? (1) 11 (2) 12 (3) 22 (4) 24												
71	The 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												
72	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												
73	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 paisa 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												
74	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) 5m (2) 10m (3) 15m (4) 0m												
75	If a , aq , aq^2 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												
76	Some years ago, a daughter was born to a woman on 31 st January, her 26 th birthday. Today is 31 st January. What could be the sum of their ages? (1) 37 (2) 38 (3) 39 (4) 43												
77	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												
78	Which option is placed at the sign of interrogation to complete the matrix? <table border="1" style="margin-left: auto; margin-right: auto;"> <tbody> <tr> <td style="text-align: center;">A</td> <td style="text-align: center;">M</td> <td style="text-align: center;">B</td> <td style="text-align: center;">N</td> </tr> <tr> <td style="text-align: center;">R</td> <td style="text-align: center;">C</td> <td style="text-align: center;">S</td> <td style="text-align: center;">D</td> </tr> <tr> <td style="text-align: center;">E</td> <td style="text-align: center;">U</td> <td style="text-align: center;">F</td> <td style="text-align: center;">?</td> </tr> </tbody> </table> (1) G (2) R (3) T (4) V	A	M	B	N	R	C	S	D	E	U	F	?
A	M	B	N										
R	C	S	D										
E	U	F	?										
79	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												
80	The value of : $\frac{2^{(m+1)} \times 3^{(2m-n)} \times 5^{(m+n)} \times 6^{(n)}}{6^{(m)} \times 10^{(n+2)} \times 15^{(m)}}$ equal to : (1) 50 (2) $\frac{1}{25}$ (3) $\frac{1}{50}$ (4) $\frac{1}{5}$												
81	What is the minimum value of $\sec^2\theta + \cos^2\theta$ (1) 1 (2) 2 (3) 0 (4) none of these												

82	If $x = y \cos \frac{2\pi}{3} = z \cos \frac{4\pi}{3}$ then the value of $xy + yz + zx$ is: (1) -1 (2) 0 (3) 1 (4) 2
83	The probability of 53 Sundays in a leap year is (1) 53/366 (2) 53/365 (3) 1/7 (4) 2/7
84	Which of the following diagrams correctly illustrates the relationship among the classes: Carrot, Food, Vegetable  (1) (a) (2) (b) (3) (c) (4) (d)
85	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) $a = b = c$
86	If three equal circles of radius 3cm 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) $\frac{3}{2} (\sqrt{3} - \pi) \text{cm}^2$
87	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
88	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%
89	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
90	The equation $3x - 2y = 9$ has : (1) one solution (2) no solution (3) Infinite solution (4) none of these
91	In a square of side 4cm, two quadrants of a circle are drawn with centres on vertices B and D and radius equals to the side of square. Then the area of petal AC is:  (1) 12cm^2 (2) 7.76cm^2 (3) 9.12cm^2 (4) 6.4cm^2
92	O is the centre of circle. If $\angle ACB = 130^\circ$, find smaller angle $\angle AOB$? (1) 50° (2) 100° (3) 130° (4) 110° 
93	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
94	The ratio of volume of cube to that of sphere which exactly fits inside the cube is: (1) $6:\pi$ (2) $\pi:6$ (3) $\pi:12$ (4) $12:\pi$

