



DEV LULLA SIR'S

# Lulla Classes



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## SCHOLARSHIP CUM ADMISSION TEST

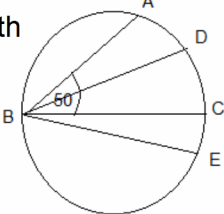
LSAT MOVING TO STD 9

Time 1 hrs Marks : 150

### General Instructions

1. This booklet consists of 50 questions. Time allowed will be 60 minutes
2. The answer sheet, OMR, is provided separately. DO NOT tamper with/ Mutilate the OMR or the booklet
3. Submit OMR sheet when asked for by the invigilator. Write all the details which are requested for in capital letters.
4. Side spaces of the question paper booklet may be used for rough work.
5. Marking System: The total test is of 150 marks. +3 marks will be awarded for every correct answer and -1 will be awarded for every incorrect answer.

### ANSWER THE BELOW GIVEN QUESTIONS ON THE OMR SHEET ONLY

1. If  $m = (2 - a)$  then  $(a^3 + 6am + m^3 - 8)$  is -----.  
(a) 0 (b) 1 (c) 2 (d) 3
2. Which of following pairs of equations have same solution ?  
(a)  $6x = 3$  and  $3x = 1.5$  (b)  $8x = 3$  and  $4x = 1$  (c)  $10x = 9$  and  $5x = 18$  (d)  $12x = 6$  and  $6x = 6$
3. Angle between internal and external bisectors of angle is -----.  
(a)  $90^\circ$  (b)  $180^\circ$  (c)  $270^\circ$  (d)  $30^\circ$
4. In figure  $\angle POR$ ,  $\angle QOR$  form a linear pair and  $a - b = 40^\circ$ . Then,  $a, b$  respectively are -----.  
(a)  $110^\circ, 70^\circ$  (b)  $70^\circ, 100^\circ$  (c)  $80^\circ, 120^\circ$  (d)  $120^\circ, 80^\circ$
5. In given figure,  $\triangle ABC$  is an Isosceles triangle with  $AB = AC$  and  $\angle ABC = 50^\circ$  ----- is  $\angle BDC$ .  
(a)  $100^\circ, 60^\circ$  (b)  $50^\circ, 120^\circ$   
(c)  $60^\circ, 80^\circ$  (d)  $80^\circ, 100^\circ$   

6. ----- change in percent is made in area of rectangle by decreasing its length and increasing its breadth by 5%.  
(a) 2.5% increase (b) 0.25% decrease (c) 0.25% decrease (d) 2.5 decrease
7. If volume of two cones are in ratio 1 : 4 and their diameters are in ratio 4 : 5, then ratio of their heights is -----.  
(a) 1 : 5 (b) 5 : 4 (c) 5 : 16 (d) 25 : 64
8. Average of 12 students is 15. The marks of a student who scored zero were wrongly taken as 18 and average was determined. The correct average marks is -----.  
(a) 15 (b) 14.5 (c) 13.5 (d) 12
9. A man is three years elder than his wife and four times as old as his son. If son shall attain an age of fifteen years after three years, ----- is percent age of his mother.  
(a) 60 years (b) 51 years (c) 48 years (d) 45 years
10. A, B and C enter into partnership by making investments in ratio 3 : 5 : 7. After a year C invests another Rs.337600 while A withdraw Rs.45600. Ratio of investments then changes to 24:59:167. ----- amount did A invest initially.  
(a) Rs.45600 (b) Rs.96000 (c) Rs.141600 (d) None
11. ----- is value of  $x$  if  $\frac{2^{x-3}}{8^{-x}} = \frac{32}{(4)^{(\frac{1}{2}x)}}$

- (a)  $2\frac{1}{5}$  (b)  $1\frac{1}{5}$  (c)  $3\frac{1}{5}$  (d)  $1\frac{3}{5}$
12.  $2.\overline{6} - 0.\overline{82} = \text{-----}$ .
- (a)  $\frac{182}{99}$  (b)  $\frac{180}{999}$  (c)  $\frac{175}{99}$  (d)  $\frac{184}{999}$
13. Sum of a number and its reciprocal is thrice the difference of number and its reciprocal. Then, number is -----.
- (a)  $\pm\sqrt{2}$  (b)  $\pm\frac{1}{\sqrt{2}}$  (c)  $\pm\sqrt{3}$  (d) Both (a) & (b)
14. Total number of Quadrilaterals in a following figure is -----.
- (a) 10 (b) 6 (c) 9 (d) None
15. ----- is value of a if  $(x-a)$  is a factor of polynomial  $[x^6 - ax^5 + x^4 - ax^3 + 3x - a + 2]$
- (a)  $a = -1$  (b)  $a = 1$  (c)  $a = -2$  (d)  $a = 2$
16. Number of ways of writing the number  $\frac{1}{15}$  in form  $\frac{a}{3} - \frac{b}{5}$  (a, b are integers) is -----.
- (a) 0 (b) 1 (c) Finitely many (d) Infinitely many
17.  $\frac{\sqrt{\left(3\frac{1}{4}\right) - \left(4\frac{1}{3}\right)^4}}{\sqrt{\left(3\frac{1}{4}\right)^2 - \left(4\frac{1}{3}\right)^2}} = \text{-----}$
- (a)  $5\frac{7}{12}$  (b)  $5\frac{5}{12}$  (c)  $5\frac{12}{13}$  (d)  $5\frac{1}{6}$
18. ABCD and ABEF are two cyclic quadrilaterals in following figure.  
If  $\angle BCD = 110^\circ$ , then  $\angle BEF = \text{-----}$ .
- (a)  $55^\circ$  (b)  $70^\circ$  (c)  $90^\circ$  (d)  $110^\circ$
19. Probability of guessing correct answer to a certain test question is  $\frac{x}{2}$ . If probability of not guessing correct answer to this question is  $\frac{2}{3}$ , then  $x = \text{-----}$
- (a) 2 (b) 3 (c)  $\frac{2}{3}$  (d)  $\frac{1}{3}$
20. Mean, median and mode of following numbers are -----.  
[7, 4, 3, 5, 6, 3, 3, 2, 4, 3, 4, 3, 3, 4, 4, 3, 2, 4, 3, 2, 4, 3, 5, 4, 3, 4, 3, 1, 2, 3]
- (a) 3.47, 3, 3 (b) 3, 3, 3 (c) 4, 3, 3 (d) 5, 4, 3
21. Mirror used to view tall buildings is
- (a) Concave (b) convex (c) plane (d) Depends
22. Color of sky is blue due to ----- of light.
- (a) Dispersion (b) Reflection (c) Scattering (d) None
23. SI unit of weight is
- (a) Kg (b) gm (c) Newton (d) Quintal
24. Swati wears spectacles of power -1.5D. what defects does she have.
- (a) Myopia (b) Hyper metropia (c) Presbiopia (d) None

25. What is the unit of frequency.  
 (a) Hertz (b) sec<sup>-1</sup> (c) Khz (d) All of the above
26. Guru Gobind singh was  
 (a) 10<sup>th</sup> Guru of Sikhs (b) Founder of khalsa (c) Author of Daram Granth (d) All of the above
27. The ozone layer restricts  
 (a) Visible light (b) Infrared light (c) x rays (d) UV rays
28. Ecology deals with  
 (a) Birds (b) cells (c) Relation between organism & environment (d) Tissues
29. Golden Temple is India's  
 (a) Largest Gurudwara (b) Oldest Gurudwara (c) Both A & B (d) None
30. Dr Zakir Hussain was  
 (a) The first muslim president of India (b) First vice president of India  
 (c) First president of Indian National Congress (d) First speaker of Lok Sabha.
31. In female body, fertilization takes place in -  
 (a) Ovary (b) Oviduct (c) Uterus (d) Vagina
32. ----- is an endocrine gland -  
 (a) Urethra (b) Oviduct (c) Penis (d) Testis
33. Alligators are poached for their -----  
 (a) Bones (b) fur (c) skin (d) teeth
34. Which of the following cell-organelle initiate & regulate cell-division -  
 (a) Ribosome (b) Nucleus (c) Chloroplast (d) Centrosome
35. The first true synthetic fibre is -  
 (a) Rayon (b) Nylon (c) Polyester (d) Spandex
36. Which of the following has highest calorific value  
 (a) Petrol (b) Hydrogen (c) Diesel (d) Kerosene
37. Which zone of candle flame undergoes complete combustion  
 (a) Outer (b) Middle (c) inner (d) all
38. Allotropy is the characteristics property of  
 (a) Metals (b) Non-metals (c) Metalloids (d) None
39. In galvanization, iron is coated with -----  
 (a) Aluminium (b) Zinc (c) Phosphorus (d) Silver
40. During corrosion, silver reacts with -----  
 (a) Oxygen (b) Sulphur (c) carbon-dioxide (d) Hydrogen
- From the four selection given, encircle the word or phrase that best completes the sentence. For instance, if the appropriate answer is (d) encircle the letter like (d)
41. The children were disappointed because their father on his retirement sold the old house and --- in a small flat in a far off suburb.  
 (a) Set them up (b) put them down (c) set them down (d) put them up
42. The completion of new building has been ----- owing to financial constraint.  
 (a) held down (b) held up (c) held on (d) held off
- Some parts of a sentences given below are underlined. If there is any mistake it is one of the underlined parts. Identify that part and blacken the code (a,b,c ) of that part against the question in the answer sheet. If there is no mistake then mark the code of No error.
43. A team of three Indians, two Canadians (a) and three Japanese was successful in (b) climbing the highest mountain peak on its third attempt. (c) No error. (d)
44. I have often stood in need of my dog's company (a) and I have derived from the mere fact of his existence (b) great sense of inward security. (c) No error. (d)
- Select the alternatives which you consider both most correct and most effective according to the requirements of standard written English If you think that the original sentence is the best. Mark 'E' which means 'No improvement' is needed."

45. He is a genius although he is eccentric and wants recognition  
 (a) Although he is eccentric he is a genius and wants recognition.  
 (b) Although he is eccentric he is a genius although he wants recognition  
 (c) His is a genius although he is eccentric and although is wants recognition.  
 (d) Although he is eccentric and wants recognition, he is a genius.  
 (e) No change
46. The noise at the function was deafening which made conversation difficult  
 (a) The noise at the function was deafening and it made conversation.  
 (b) The deafening noise at the function made conversation.  
 (c) The function noise was deafening which made conversation  
 (d) No change

In each of the following questions parts of a logically and thematically connected sentences are given in a jumbled form. Their possible ordering is given in answer choices. Pick up the correct ordering.

47. During hibernation  
 P. they find that they have lost a good deal / of weight.  
 Q. of course the animals consume  
 R. and when they awake again  
 S. the fats accumulated in the summer  
 The proper sequence should be  
 (a) RQSP (b) SQPR (c) PQRS (d) QSRP
48. The natives of the Caribbean  
 P. regarded the papaya  
 Q. because of its ability  
 R. as a magic tree  
 S. to keep them healthy  
 The proper sequence should be  
 (a) PRQS (b) RPQS (c) PRSQ (d) RPSQ

First and the last sentence of a well connected paragraph are given and coded as questions. The intervening sentences are jumbled up with regard to their sequence in the paragraph. Pick up the correct order of jumbled up sentences from the answer choices.

49.  $S_1$  : Metals are today being replaced by polymers in many applications.  
 $S_6$  Many Indian institutes of Science and Technology run special programmes on polymer science.  
 P : Above all, they are cheaper and easier to process. Making them a viable alternatives to metals.  
 Q : Polymers are essentially long chains of hydrocarbon molecules.  
 R : Today polymers as strong as metals have been developed.  
 S : These have replaced the traditional chromium plated metallic bumpers in cars.  
 The proper sequence should be  
 (a) QRSP (b) RSQP (c) RQSP (d) QRPS
50.  $S_1$  : We do not know whether the machines are the masters or we are.  
 $S_6$  And if they don't their meals they expect them.  
 P : They must be given or rather fed with coal and given petrol to drink from time to time.  
 Q : Already man spends most of his time looking after and waiting upon them  
 R : Yet he has grown so dependent on them that they have almost become the masters now.  
 S : It is very true that they were made for the sole purpose of being man's servants.  
 The proper sequence should be  
 (a) RSQP (b) RSPQ (c) SPQR (d) SRQP

### Solutions

1.	(a) 0	26.	(d) All of the above
2.	(a) $6x = 3$ and $3x = 1.5$	27.	(d) UV rays
3.	(a) $90^\circ$	28.	
4.	(a) $110^\circ$ , $70^\circ$	29.	(a) Largest Gurudwara
5.	(d) $80^\circ$ , $100^\circ$	30.	(a) The first muslim president of India
6.	(c) 0.25% decrease	31.	(b) Oviduct
7.	(d) 25 : 64	32.	(d) Testis
8.	(c) 13.5	33.	(c) skin
9.	(d) 45 years	34.	(d) Centrosome
10.	(c) Rs.141600	35.	(b) Nylon
11.	(d) $1\frac{3}{5}$	36.	(b) Hydrogen
12.	(a) $\frac{182}{99}$	37.	(a) Outer
13.	(d) Both (a) & (b)	38.	(b) Non-metals
14.	(d) None	39.	(b) Zinc
15.	(a) $a = -1$	40.	(b) Sulphur
16.	(d) Infinitely many	41.	(c) set them down
17.	(b) $5\frac{5}{12}$	42.	(b) held up
18.	(d) $110^\circ$	43.	(b)
19.	(c) $\frac{2}{3}$	44.	(c)
20.	(a) 3.47, 3, 3	45.	(b)
21.	(b) convex	46.	(b)
22.	(c) Scattering	47.	(d)
23.	(c) Newton	48.	(a)
24.	(a) Myopia	49.	(a)
25.	(d) All of the above	50.	(d)