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**ISRO Junior
Personal Assistant
Previous Year Paper
Paper-II 2010**





INDIAN SPACE RESEARCH ORGANISATION [HEADQUARTERS]

WRITTEN TEST FOR RECRUITMENT TO THE POST OF ASSISTANT/ JR.PERSONAL ASSISTANT

Test Booklet :

B

Paper –II : Arithmetic, General Knowledge, Computer Literacy

Date : 10th January 2010

Time : 1400 hrs. to 1630 hrs.

	No. of questions
Part- A : Arithmetic (Objective type)	60
Part- B : General Knowledge (Objective type)	20
Part- C : Computer Literacy (Objective type)	20

INSTRUCTIONS

1. The question paper is in the form of test booklet.
2. A separate OMR answer sheet is provided to all candidates.
3. Each objective question is provided with a text and figures wherever applicable with multiple answers (a), (b), (c) and (d), which includes one correct answer.
4. Refer answer sheet instructions and use **HB pencil** for answering all the questions.
5. All questions carry 1 mark each. There will be negative mark for wrong answer.
6. Multiple answers for a question will be regarded as wrong answer.
7. Although the test stresses on accuracy more than speed, it is important for you to use your time as effectively as possible.
8. Do not waste time on questions which are too difficult for you. Go on to other questions and come back to the difficult ones later.
9. Question booklets have been marked with **A or B or C or D or E or F** on the right hand top corner, which shall be written on the answer sheet in the box and bubble appropriately.
10. Enter your name and roll number correctly on the OMR answer sheet.
11. Enter all information as per the instructions given in the answer sheet.
12. Space available in the Question booklet could be used for rough work, if required and no separate sheet will be provided.
13. At the end of the test (1) Written test Call Letter with photograph and (2) OMR Answer Sheet shall be returned to the Invigilator.

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WRITTEN TEST FOR THE POST OF ASSISTANT/JR. PERSONAL
ASSISTANT

PART-A (ARITHMETIC)

1. A bonus of Rs. 1000 is to be divided among three people so that Rohit receives twice as much as Sachin, who receives one-fifth as much as Gagan. How much money should Gagan receive?
a) Rs. 100 b) Rs. 250 c) Rs.375 d) Rs.625
2. The batting average for 40 innings of a cricket player is 50 runs. His highest score exceeds his lowest score by 172 runs. If these two innings are excluded, the average of the remaining 38 innings is 48 runs. The highest score of the player is:
a) 165 runs b) 170 runs c) 172 runs d) 174 runs
3. After replacing an old member by a new member, it was found that the average age of five members of a club is the same as it was 3 years ago. What is the difference between the ages of the replaced and the new member?
a) 2 years b) 4 years c) 8 years d) 15 years
4. A man bought a house for Rs. 5 lakhs and rents it. He puts $12\frac{1}{2}\%$ of each month's rent aside for repairs, pays Rs. 1660 as annual taxes and realizes 10% on his investment thereafter. The monthly rent of the house is:
a) Rs. 2460 b) Rs. 2500 c) Rs. 4920 d) Rs.5000
5. Two ships are sailing in the sea on the two sides of a light house. The angles of elevation of the top of the light house as observed from the two ships are 30 deg and 45 deg respectively. If the light house is 100 meter high, the distance between the two ships is:
a) 173 M b) 200 M c) 273 M d) 300 M
6. 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) 3.3 b) 9.3 c) 9.8 d) 9.9
7. A man bought 5 shirts at Rs 450 each, 4 trousers at Rs 750 each and 12 pairs of shoes at Rs 750 each. What is the average expenditure per article?
a) Rs 678.50 b) Rs 800 c) Rs 900 d) Rs 1000

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8. Ramlal purchased 120 reams of paper at Rs100 per ream and the expenditure on transport was Rs 480. He had to pay an octroi duty of 50 paise per ream and the coolie charges were Rs 60. What should be charge per ream to gain 20%.

a) Rs 105 b) Rs 115.50 c) Rs 120 d) Rs 126

9. An 85 cm long wire is to be cut into two pieces such that one piece will be two-third as long as the other. How many centimeters will the shorter piece be?

a) 34 b) 51 c) 17 d) 8.5

10. Ajay, Keshav and Vijay invested Rs. 8000, Rs. 4000 and Rs. 8000 respectively in a business. Ajay left after six months. If after 8 months there was a profit of Rs. 4005, then what will be the share of Keshav?

a) Rs. 890 b) Rs. 1780 c) Rs. 1335 d) Rs. 1602

11. The ratio of the prices of three different types of cars is 4: 5: 7. If the difference between the prices of costliest and the cheapest cars is Rs. 60,000, what is the price of the car of moderate price?

a) Rs. 80,000 b) Rs. 1,00,000 c) Rs. 1,40,000 d) Rs. 1,20,000

12. The average weight of 29 students in a class is 48 kg. If the weight of the teacher is included, the average weight rises by 500 g. Find out the weight of the teacher.

a) 57 kg b) 60 kg c) 65 kg d) 63 kg

13. A cricketer has a certain average of 9 innings. In the tenth innings, he scores 100 runs, thereby increasing his average by 8 runs. His new average is-

a) 20 runs b) 24 runs c) 28 runs d) 32 runs

14. There are two candidates Ramesh and Ramgopal for an election. Ramesh gets 65% of the total valid votes. If the total votes were 6000, what is the valid votes that the other candidate Ramgopal gets if 25% of the total votes were declared invalid?

a) 1575 b) 1625 c) 1675 d) 1525

15. In a group of buffaloes and ducks, the number of legs are 24 more than twice the number of heads. What is the number of buffaloes in the group?

a) 6 b) 12 c) 8 d) None of the above.

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16. The traffic light at three different roads change after every 48 sec., 72 sec. and 108 second respectively. If they all change simultaneously at 8:20:00 hours, when will they change again simultaneously?
 a) 12:8:27 b) 8:27:12 c) 27:8:12 d) None of these.

17. How many $\frac{1}{8}$ are there in $37\frac{1}{2}$?
 a) 300 b) 400 c) 500 d) none of these

18. A library has an average of 510 visitors on Sundays and 240 on other days. The average number of visitors per day in a month of 30 days beginning with a Sunday is
 a) 250 b) 285 c) 280 d) 286

19. If $\frac{a}{3} = \frac{b}{4} = \frac{c}{7}$, then $\frac{a+b+c}{2}$ is equal to
 a) 7 b) 2 c) $\frac{1}{2}$ d) $\frac{1}{7}$

20. Which of the following fractions are in descending order?
 a) $\frac{7}{5}, \frac{2}{3}$ b) $\frac{7}{5}, \frac{3}{2}$ c) $\frac{3}{2}, \frac{5}{7}$ d) $\frac{2}{3}, \frac{5}{7}$
 8, 7, 3, 5 8, 7, 5, 3 5, 3, 7, 8 3, 5, 7, 8

21. The mean of 200 items was 50. Later on, it was discovered that 2 items were misread as 92 and 8 instead of 192 and 88. Then the correct mean is:
 a) 50.8 b) 50.9 c) 50.7 d) 50.6

22. A tank is filled with $\frac{1}{5}$ part of it with water. 8 litres of water is taken from it. If the tank is filled with $\frac{1}{6}$ part of it water now, How many liters of water can the tank hold?
 a) 480 b) 720 c) 280 d) 240

23. Arrange the following in ascending order of magnitude:
 $\frac{3}{4}, \frac{53}{72}, \frac{89}{116}$
 a) $\frac{89}{116}, \frac{53}{72}, \frac{3}{4}$ b) $\frac{3}{4}, \frac{53}{72}, \frac{89}{116}$
 c) $\frac{3}{4}, \frac{89}{116}, \frac{53}{72}$ d) $\frac{53}{72}, \frac{89}{116}, \frac{3}{4}$

24. The difference of two numbers is 11 and $\frac{1}{5}$ th of their sum is 9. The numbers are
 a) 31, 20 b) 30, 19 c) 29, 18 d) 28, 17

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25. 3 men can do as much work as 5 women and 1 woman can do as much work as 2 children. If 20 women can finish work in 14 days, in how many days will the same work be finished by 6 men, 5 women and 5 children?
a) 14 b) 16 c) 18 d) 20

26. A team of 8 persons joins in a shooting competition. The best marks man scored 85 points. If he had scored 92 points the average score for the team would have been 84. The number of points, the team scored was:
a) 672 b) 665 c) 645 d) 588

27. Profit earned by selling an article for Rs.1060/- is 20% more than the loss incurred by selling the article for Rs.950/-. At what price should the article be sold to earn 20% profit?
a) Rs.980/- b) Rs.1080/- c) Rs.1800/- d) None

28. The area of a rectangle is thrice that of a square. If the length of the rectangle is 40cm and its breadth is $\frac{3}{2}$ times that of the sides of the square, then the side of the square is:
a) 15cm b) 20cm c) 70cm d) 80cm

29. A man rows upstream 8 km and downstream 220 km taking 4 hrs each time. Find the speed of the man in still water?
a) 3.5 Kmph b) 4 k mph c) 3 kmph d) 4.5 kmph

30. An aeroplane travels distances 2500 kms, 1200 kms and 500 kms at the rate of 500 km/hr, 400 km/hr and 250 km/hr respectively. The average speed in km/hr is:
a) 405 b) 410 c) 420 d) 575

31. Sound travels at 330m/sec. How many kms away is a thundercloud when its sound follows the flash after 10 secs?
a) 3.3 kms b) 3.33 kms c) 0.33 kms d) 33 kms

32. A walks at a uniform rate of 4 km an hour and 4 hours after his start, B bicycles after him at the uniform rate of 10 km an hour. How far from the starting point will B catch A?
a) 16.7 km b) 18.6 km c) 21.5 km d) 26.7 km

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33. Two guns are fired from the same place at an interval of 6 minutes. A person approaching the place observes that 5 minutes 52 seconds have elapsed between the hearing of the sound of the two guns. If the velocity of the sound is 330 m/sec, the man was approaching that place at what speed?

a) 24 km/hr b) 27 km/hr c) 30 km/hr d) 36 km/hr

34. A person has to make a journey of 72 km. He rides a cycle at 12 km/hr. After going a certain distance the cycle is punctured and he walks the remaining distance at $4\frac{1}{2}$ km/hr. Find where the cycle is punctured if the total time for the journey is $8\frac{1}{2}$ hours.

a) 50 km b) 52 km c) 54 km d) 56 km

35. A shopkeeper advertises for selling cloth at 4% loss. However by using a false metre scale he actually gains 25%. What is the actual length of the scale?

a) 80 cm b) 70 cm c) 90 cm d) 75 cm

36. The marked price of a shirt and trousers are in the ratio of 1:2. The shopkeeper gives 40% discount on the shirt. If the total discount on the set of the shirt and trousers is 30%, the discount offered on the trousers is:

a) 15% b) 20% c) 25% d) 30%

37. A contractor undertakes to dig a canal 12 km long in 350 days and employs 45 men. He finds after 200 days of working that only $4\frac{1}{2}$ km of canal have been completed. How many extra men must be employed to finish the work in time?

a) 50 b) 55 c) 60 d) 65

38. The sales of a business in 1987 were 30% less than sales in 1986. By what percent must the sales in 1988 be increased to bring to the level of 1986?

a) 42.85% b) 43% c) 42.6% d) 40.25%

39. Suresh has some cows and hens. If the total number of heads be 48 and that of legs be 140, then find the number of hens?

a) 22 b) 23 c) 24 d) 26

40. To a certain number 7 is added. The sum is multiplied by 5, the product is divided by 9 and 3 is subtracted from the quotient. If the remainder is 12, what is the number?

a) 24 b) 20 c) 40 d) 48

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41. The electricity bill of a certain establishment is partly fixed and partly varies as the number of units of electricity consumed. When in a certain month 540 units are consumed, the bill is Rs.1800. In another month 620 units are consumed and the bill is Rs.2040. In yet another month, 500 units are consumed, the bill for that month will be-

a) Rs.1,560 b) Rs.1,680 c) Rs.1,840 d) Rs.1,950

42. A man sells Rs.4000, 10% stock at 150 and invests the proceeds partly in 6% stock at 80 and 7% stock at 96. He thereby increases his income by Rs.50. How much of the proceeds were invested in each stock?

a) 0 b) 10 c) 100 d) 1000

43. There are 20 workers and one manager in a factory and their average monthly salary was Rs.1600. The manager whose salary was Rs.3000, retired and his place was taken by another. The average salary of all the 21 people became Rs.1750 per month. What was the salary of the new manager?

a) Rs.6000 b) Rs.6150 c) Rs.6100 d) Rs.6200

44. A screwdriver and a hammer currently have the same price. If the price of a screwdriver raises by 5% and the price of hammer goes up by 3% how much more will it cost to buy 3 screwdrivers and 3 hammers?

a) 3% b) 4% c) 5% d) 8%

45. Ganesh invested 40% of his salary on food, 50% of the remaining on education and 10% of the remaining on other requirements. Now he is left with Rs.540. What is his salary?

a) Rs.20,000 b) Rs.24,000 c) Rs.2,000 d) Rs.15,000

46. A carpenter prepared 14 more toys on Tuesday than what he had prepared on Monday. Then on Wednesday he prepared 50% of the toys that were prepared on the previous two days together. If he had prepared 75 toys in the three days, how many toys did he prepare on Wednesday?

a) 18 b) 32 c) 25 d) 39

47. The average temperature of the first three days of a week is 27° and of the next three days is 29° . If the average of the whole of the week is 28.5° the temperature of the last day of the week is

a) 31.5° b) 10.5° c) 21° d) none

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48. If 8 students are seated on each bench, 3 benches are left over. If 5 students are seated on each bench, 12 students are left over. How many benches and students are there?
a) 10 benches and 65 students b) 12 benches and 72 students
c) 11 benches and 60 students d) 9 benches and 70 students

49. Two towers are 35 mtrs and 50 mtrs high and 20 mtr apart on level ground. Find the length of the rope connecting their tops?
a) 15 mtrs b) 20 mtrs c) 25 mtrs d) 30 mtrs

50. If B is 10% heavier than A and C is 10% lighter than B, then what can you say about the relative weights of A & C?
a) C is heavier than A by 1 % b) C is lighter than A by 1 %
c) They are equal in weight d) C is lighter than A by 99 %

51. A businessman sold two TV sets for Rs. 9,900 each, making 10% profit on one and losing 10% on the other. His gain or loss percentage on the two TV sets is
a) no gain no loss b) loss of 1 % c) gain of 1% d) gain of 5%

52. A monkey ascends a greased pole 12 metres high. He ascends 3 metres in the first minute and slips down by 1 metre in the alternate minute. In which minute, did he reach the top of the pole?
a) 10th b) 12th c) 13th d) 11th

53. A gardener planted total 6561 plants in such a way that there are as many rows as there are trees in each row. How many rows were there?
a) 91 b) 81 c) 89 d) 801

54. Three bells toll at intervals of 36 seconds, 40 seconds and 48 seconds, respectively. They start ringing together at particular time. They will toll next time together after
a) 6 minutes b) 12 minutes c) 18 minutes d) 24 minutes

55. The price of commodity X increases by 40 paise every year, while the price of commodity Y increases by 15 paise every year. If in 2001, the price of commodity X was Rs. 4.20 and that of Y was Rs. 6.30, in which year commodity X will cost 40 paise more than the commodity Y?
a) 2010 b) 2011 c) 2012 d) 2013

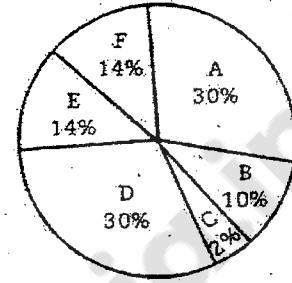
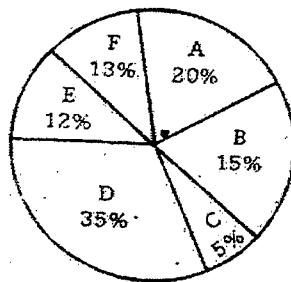
Directions (Qns. 56 to 60) Study the following information to answer the given questions.

Percentage of students in various courses (A, B, C, D, E, F) and percentage of girls out of these.

Total Students : 1200 Total girls = 800
(800 girls + 400 boys)

Percentage in various courses

Percentage of Girls in courses



56. For course D what is the respective ratio of boys and girls?

a) 3:4 b) 4:5 c) 3:5 d) 5:6

57. For which pair of courses is the number of boys the same?

a) E & F b) A & D c) C & F d) B & D

58. For course E, the number of girls is how much percent more than the boys for course E?

a) 250 b) 350 c) 150 d) 80

59. For which course is the number of boys the minimum?

a) E b) F c) C d) A

60. How many girls are in course C?

a) 44 b) 16 c) 40 d) 160

END OF PART-A

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PART - B (GENERAL KNOWLEDGE)

61. Which of the following writs literally means 'what is your authority'?

a) Habeas Corpus b) Quo Warranto
c) Certiorari d) Prohibition

62. India's first Atomic Reactor was _____.

a) Aryabhatta b) Savitri c) Zerlina d) Apsara

63. The first 'Earth Summit' was held at _____.

a) San Francisco b) Frankfurt c) Rio de Janeiro d) Caracas

64. Name the Plant that is used in Ayurveda for improving memory.

a) Amla b) Brahmi c) Tulsi d) Vasaka

65. The term 'butterfly' in sports is associated with _____.

a) Basketball b) Swimming c) Rowing d) Golf

66. National income estimates in India are prepared by

a) Central Statistical Organization b) Ministry of Finance
c) National Development Council d) Planning Commission

67. Which waterway separates India from Srilanka?

a) Eight degree channel b) Palk Strait
c) Ten degree channel d) Andaman Sea

68. The leaders of G20 countries met for the first time in Washington in

a) November, 2005 b) November, 2006
c) November, 2007 d) November, 2008

69. Which of the following award was given to Dr.G.Madhavan Nair recently?

a) Man of the year b) Bharat Ratna
c) Business man of the year d) Best public servant of the year

70. Which of the following is a chemical fertilizer?

a) Zinc Oxide b) Meurate of Potash
c) Calcium Carbonate d) Silver chloride

71. Which one of the following pairs of cities has recently been connected by a six lane express way?

a) Ahmedabad and Vadodra b) Dhaka and Chittagong
c) Islamabad and Lahore d) Mumbai and Pune

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72. Now the latest CRR as declared by RBI w.e.f January 19, 2009 is _____
a) 5.0% b) 5.5% c) 6.0% d) 6.5%

73. Which of the following parts of the sunlight makes the solar cooker hot?
a) Cosmic rays b) Ultra Violet c) Red Light d) Infra red

74. The colour of the human skin is due to:
a) Myoglobin b) Melanin c) Keratin d) Myelin

75. A small weight put on a pressure cooker increases the pressure of the steam because
a) it is air-tight
b) area of contact is very small
c) density of metal is very high
d) Pressure builds up irrespective of the weight placed

76. Which is the smallest country (in population)?
a) Vatican city b) Nauru c) Monaco d) Palau

77. Who said the famous quotation 'A Government of the people, by the people and for the people'?
a) Carl Schurz b) Abraham Lincoln
c) George Bernard Shaw d) Emerson

78. To whom should the President tender his resignation if he wants to resign from his office?
a) The Speaker b) The Chief Justice of India
c) The Prime Minister d) The Vice-President

79. Who wrote the book "Satyarthi Prakash"?
a) Swami Dayanand b) Swami Vivekanand
c) Sarojini Naidu d) Kalidas

80. Who is the present Chairman of ISRO?
a) Dr. K Kasturirangan b) Shri G Madhavan Nair
c) Dr. K. Radhakrishnan d) Shri Anil Kakodkar

END OF PART-B

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PART - C : (COMPUTER LITERACY)

81. Which of the following is not a version of BASIC ?
a) GWBASIC b) GSBASIC c) BASICA d) QBASIC

82. Which of the following is not a numeric constant ?
a) Integer b) Long Integer c) Short Integer d) Single precision

83. Which of the following commands helps to insert comments that enable one to understand what the programme is all about ?
a) REM b) PRINT c) LET d) INPUT

84. To make your document password protected, you use -----
a) Format, font b) Format, paragraph
c) Tools options, security d) save

85. Typical data transfer rate in LAN are of the order of
a) Bits per sec b) Kilo bits per sec
c) Mega bits per sec d) None of the above

86. A large number of computers in a wide geographical area can be efficiently connected by
a) Twisted pair lines b) Coaxial cables
c) Communications satellites d) None of the above

87. A floppy disk is made up of flexible plastic coated with
a) Zinc Oxide b) Magnetic Oxide c) Iron Oxide d) None

88. In word, what combination of keys do you press to delete an entire word?
a) Ctrl + Del b) Alt + Del c) Shift + Backspace d) Shift + Alt + Del

89. A file which contains transient data to be processed in combination with a master file is called _____.
a) Sequential file. b) Master file
c) Transmission file d) Random organization file

90. Reusable Optical Storage will typically have the acronym _____.
a) CD b) ROM c) RW d) DVD

91. RAM stands for-
a) Random Access Memory b) Read Automatic Memory
c) Random Accessing Memory d) Random Allowable Memory

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92. What does IMEI stand for?

- a) International Mobile Electronic Identity
- b) International Mobile Equipment Identity
- c) Inter Mobile Equipment Identity
- d) Inter-protocol for Mobile Equipment Identity

93. Which of the following is not the goal of a computer network?

- a) Resource sharing
- b) Low reliability
- c) Load sharing
- d) To provide physical treatment

94. PPP stands for

- a) Point to Point Protocol
- b) Point to Point Programme
- c) Point to Point Provider
- d) None of the above

95. File name with extension as VXD represents

- a) Normal application file
- b) Text file
- c) Device driver
- d) Picture file

96. Which of the following can be used as universal gate?

- a) NAND
- b) OR
- c) AND
- d) NOT

97. Which of the following is the feature of operating system that is machine dependant?

- a) Process scheduling
- b) File processing
- c) Job scheduling
- d) All the above.

98. Files that store data in the same format as used in program are called

- a) Binary files
- b) Source files
- c) Text files
- d) Core

99. Which of the following is true:

- a) MS-DOS does not support multiprogramming.
- b) MS-DOS supports multiprogramming to some extent
- c) MS-DOS supports multiprogramming fully
- d) None of the above.

100. The unit "Kilo instructions per second" is used to measure the speed of

- a) processor
- b) disk drive
- c) printer
- d) tape drive

END OF PART-C