

**CHANDIGARH ADMINISTRATION
FINANCE DEPARTMENT**

(SAS Establishment Branch)

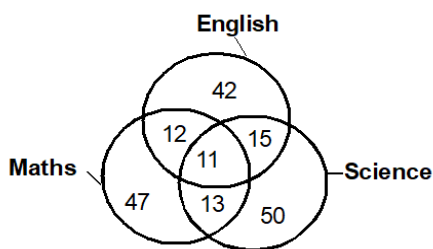
POST: INVESTIGATOR

QUESTION BOOKLET AND ANSWER KEY

SERIES (A)

FOR RECRUITMENT TEST HELD ON 17-08-2025

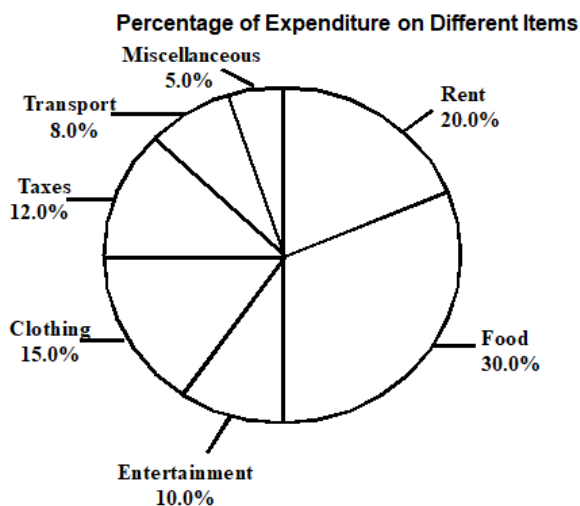
1. The diagram shows the number of students who got distinction in three subjects in a total of 500 students.



What is the percentage of student who got distinction in at least two subjects.

- A) 51% B) 35.8% C) 10.2% D) 8%
2. A, B, C, D & E play a game of cards. A says to B, "if you give me 3 cards, you will have as many as I have at this moment. While if D takes 5 cards from you, he will have as many as E has." A and C together have twice as many cards as E has. B and D together also have the same number of cards as A and C have taken together. If all together they have 150 cards, how many cards has C got ?
A) 28 B) 29 C) 31 D) 35
3. 51% of a number is 714 what is 28% of that number.
A) 351 B) 364 C) 378 D) 392
4. $\frac{1}{8}$ part of a pencil is black. $\frac{1}{2}$ part of the remaining is white. If the remaining part is blue and the length of the blue part is $3\frac{1}{2}$ cm, find the length of the pencil.
A) 6 cm B) 7 cm C) 8 cm D) 9 cm
5. If $m = 7 - 4\sqrt{3}$ Then $(\sqrt{m} + \frac{1}{\sqrt{m}}) = ?$
A) 3 B) 4 C) 8 D) 9

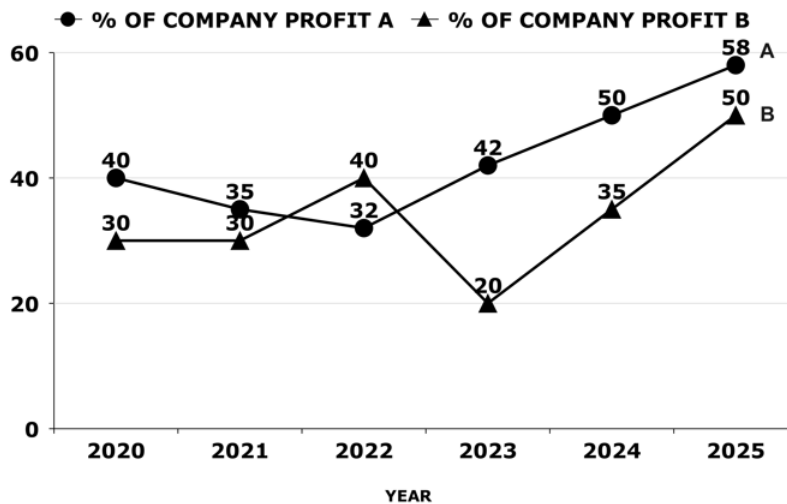
Direction : (Q. No. 6- 8)The percentage expenditure distribution of a certain family having total monthly expenditure of Rs. 13,000 only is as follows



6. How much are its annual taxes
A) Rs. 1560 B) Rs. 1040 C) Rs. 18720 D) Rs. 12480

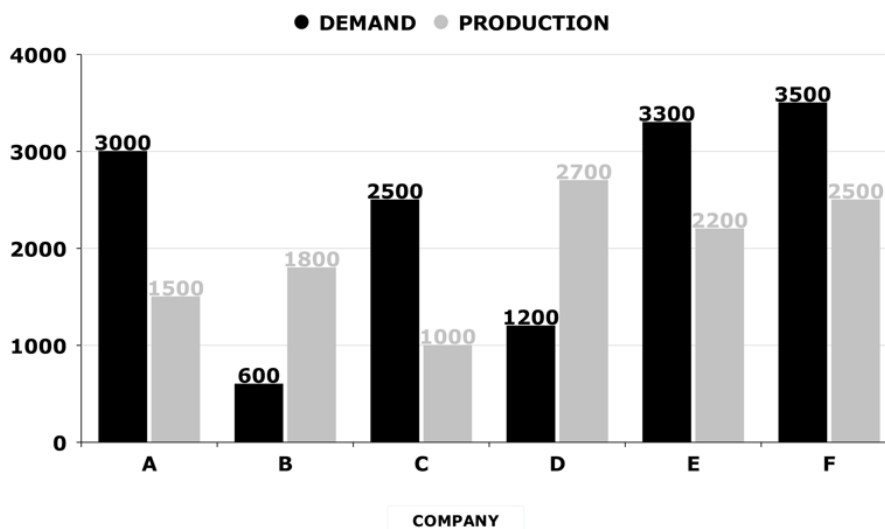
7. How many degrees should there be in the central angle showing Rent, taxes and transport combined?
 A) 100 B) 75 C) 90 D) 144
8. How much more money per month is spent by the family on food as compared to the transport?
 A) 2880 B) 2860 C) 2840 D) 2900

Direction : (Q. No. 9-10) The percent profit earned by two companies A and B are as follows



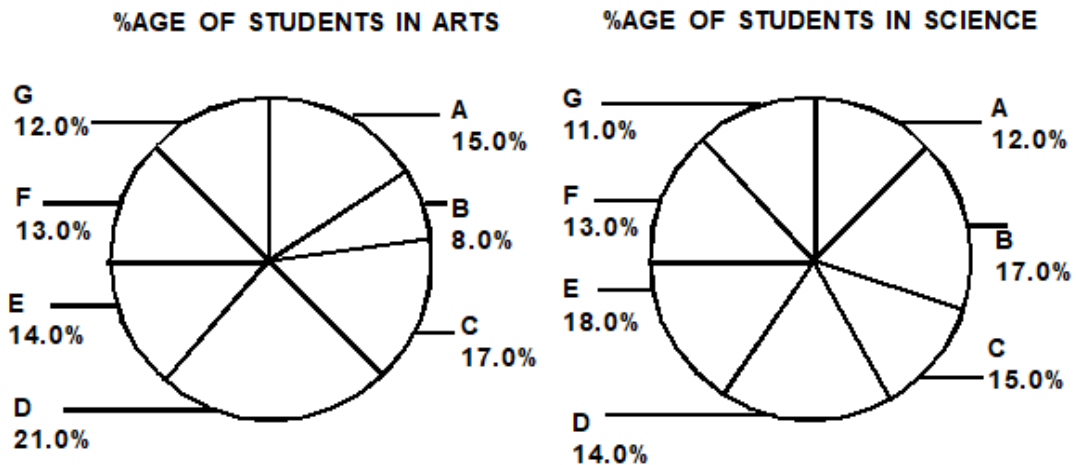
9. If the incomes of two companies in year 2021 were equal, what was the ratio of expenditure of B to that of A
 A) 1:2 B) 26:27 C) 4:5 D) 100:67
10. What was the percent increase in percent profit for the company B from year 2022 to 2023 ?
 A) 10% B) - 50% C) 2.8% D) 3.2%

Direction:(Q.11-12) The demand and production of six automobiles companies A, B, C, D, E, & F in the month July 2025 is as follows



11. What is the ratio of companies having more demand than production to those having more production than demand?
 A) 1:2 B) 3:3 C) 2:1 D) 1:1
12. What is the difference between the average demand and average production of the six companies taken together?
 A) 2400 B) 2000 C) 600 D) 400

Direction:(Q.13-14) There are seven institutions A, B, C, D, E, F, and G having total number of students in Arts and Science as 5700 and 6300. Percentagewise distribution of students studying in Arts and Science in seven institutions is as follows:



13. What is the ratio between the number of students studying Arts and Science in institute D?
 A) 14:19 B) 7: 9 C) 19:14 D) 21:19
14. How many students from institute B and D together study Science ?
 A) 1953 B) 1955 C) 1965 D) 1945

Direction:(Q.15-16) The following table represents number of employees employed by three companies A, B and C in different positions:

POSITIONS	COMPANY A	COMPANY B	COMPANY C
FINANCE MANAGER	250	150	250
ASSTT. FIN. MANAGER	450	300	350
I.T. MANAGER	200	350	350
ASSTT. I.T. MANAGER	400	650	500
MARKETING MANAGER	700	650	550
ASSTT. MARKETING MANAGER	700	750	650

15. What is the respective ratio of employees in the position of Asstt. Manager IT in the Company A, B and C.
 A) 8 : 10 : 13 B) 8 : 13 : 10 C) 8 : 12 : 11 D) 8 : 12 : 13
16. What is the percentage of number of marketing employees to the total number of employees in all the companies?
 A) 48.5% B) 48.6% C) 48.8% D) 49%

Direction:(Q.17-18) The following table shows the % of Graduates & % of Post graduate students in seven institutes A, B, C, D, E, F & G. The total number of graduate students= 38,100 & the total number of post-graduate students=27,900.

NAME OF THE INSTITUTE	PERCENTAGE OF GRADUATES	PERCENTAGE OF POST-GRADUATES
A	19	7
B	10	16
C	11	13
D	13	12
E	18	15
F	14	20
G	15	17

17. What is the total number of students studying at Graduate and Post-Graduate levels in institute D?
A) 8400 B) 8646 C) 8548 D) 8301
18. What is the nearest ratio between the number of students studying at Post graduate level in institute E and graduate level in institute D?
A) 6:7 B) 8:9 C) 4:5 D) 3:4
19. What will be angle between the two hand of a clock at 9 : 50?
A) 5^0 B) 8^0 C) 15^0 D) 90^0
20. A worker may claim Rs. 15 for each km which he travels by taxi and Rs. 5 for each km which he drives his own car. If in one week he claimed Rs. 500 for travelling 80 km, how many km did he travel by taxi?
A) 40 B) 30 C) 20 D) 10
21. In a series of 50 observations the algebraic sum of deviations from 25 is -12, what is the mean of the series
A) 13 B) 37 C) 24.76 D) 25.24
22. The mean marks of 75 students in statistics in sections A and B of a class are 38. If 40 students of section A are having mean marks as 45. What are the mean marks of the students of section B?
A) 29 B) 30. C) 35 D) 45
23. The combined mean marks of boys and girls of a class are 68. If the mean marks of boys are 71 and that of girls are 64, then the proportion of girls to boys in the class is
A) 3:4 B) 4:3 C) 1:2 D) 2:1
24. A student found the mean of 50 items to be 38.6. He took one item as 40 instead of -40. What is the correct mean?
A) 38.6 B) 37 C) 40.2 D) 42

25. The sum of the deviations of a certain number of observations measured from 4 is 72 and the sum of deviations of the same measured from 7 is -3. What is the number of observations and their mean?
 A) 25 and 6.88 B) 15 and 7 C) 10 and 17 D) 12 and 13
26. Mr. X takes a trip which entails travelling 1,350 Km by train at a speed of 60 Km.p.h, 630 Kms by aeroplane at a speed of 350 Kms.p.h., 4500 Kms. by ship at 25 Kms.p.h. and 20 Kms. by car at a speed of 30 Kms.p.h. What is the average speed of Mr. X for the entire journey?
 A) 31 Kms. p. h. B) 31.71 Kms.p.h. C) 33 Kms.p.h. D) 30 Kms.p.h.

Direction : (Q. 27- 30) On the basis of following information , give the answers to questions from 27 to 30.

The profits distribution of 300 firms is:

Profits	100-199	200-299	300-399	400-499	500-599	600-699
No. of firms	25	75	100	60	25	15

27. The lower quartile of the profit distribution is
 A) 166.85 B) 265.02 C) 266.17 D) None of these
28. The 5th Decile of the profit distribution is
 A) 350.5 B) 345.5 C) 346 D) 349.5
29. The 75th percentile of the profit distribution is
 A) 435 B) 441.17 C) 441.67 D) 440.67
30. The mode of the given series is
 A) 337.96 B) 338.46 C) 340 D) 330
31. In a class 52 percent of the students failed in as test. The marks of the students who failed the test are: 9, 6, 7, 8, 8, 8, 6, 5, 4, 6, 5, 3 and 7. What are the median marks?
 A) 5 B) 8 C) 7 D) 9
32. To calculate which measure of central tendency , class intervals must be equal
 A) Mean B) Median C) Mode D) None.
33. In a symmetrical distribution the quartiles are 31 and 41, what is the value of mode of the series?
 A) 32 B) 34 C) 36 D) None
34. In a distribution having 30 and 36 as mean and mode respectively. What is the value of median of that series?
 A) 32 B) 20 C) 32.5 D) 33
35. For a symmetrical distribution, the mean and standard deviation are 60 and 15, respectively. What are the values of quartiles Q_1 and Q_3
 A) 55 and 65 B) 50 and 70 C) 52.5 and 67.5 D) Indeterminate
36. If in a given series of 10 items , three of the items are having negative values, then the geometric mean will be
 A) Negative B) Indeterminate C) positive D) zero
37. The relationship between Arithmetic mean (A.M.), Geometric mean (G.M.) and Harmonic mean (H.M.) is
 A) $A.M. \geq H.M. \geq G.M.$ B) $A.M. \geq G.M. \geq H.M.$
 C) $G.M. \geq H.M. \geq A.M.$ D) $H.M. \geq G.M. \geq A.M.$
38. If coefficient of quartile deviation is 0.4. The sum of quartiles will be how many times that of the difference in the quartiles?
 A) 4 B) 10 C) 3.5 D) 2.5

39. The standard deviation of 50 observations is 25. If 4 is added to each item of the series, then the new standard deviation is
A) 29 B) 33 C) 21 D) 25
40. If the variance and co-efficient of variation of a series is 225 and 75%. The arithmetic mean of the series will be
A) 20 B) 30 C) 300 D) 200
41. If $N=10$, arithmetic Mean = 12, and sum of the squares of the items is 1530. What is the value of coefficient of variation?
A) 3 B) 9 C) 9% D) 25%
42. An urn contains ten balls numbered through 1 to 10. Two balls are drawn one by one without replacement, what is the probability that their sum is even;
A) 0.5 B) 0.25 C) 5/9 D) 4/9
43. Two dices are thrown once, what is the probability that the numbers appearing on the top are not identical numbers
A) 6/36 B) 30/36 C) 25/36 D) Impossible
44. A bag contains 8 red, 5 blue and 2 green balls. Two drawings of one ball each is made with replacement. The probability of having balls of same colour is;
A) 64/225 B) 1/9 C) 4/225 D) 31/75
45. Three coins are tossed once. The probability of having at least one tail is;
A) 1/8 B) 3/8 C) 7/8 D) 1
46. A class consists of 10 boys and 20 girls of which half of boys and half of girls have blue eyes. What is the probability that a student chosen at random is a boy or has blue eyes?
A) 1/3 B) 1/2 C) 2/3 D) 1/6
47. Tickets are numbered through 1 to 100. They are well shuffled, and a ticket is drawn at random. What is the probability that the ticket drawn bears a prime number?
A) 1/5 B) 3/4 C) 1/4 D) 1/6
48. Sum of quartiles = 140 Difference of quartiles = 46
Median = double of the difference of quartiles
What is the value of coefficient of skewness?
A) 0.096 B) -0.96 C) 1.043 D) -0.196
49. The mean of a certain number of items is 84. If two more items 46 and 54 are to the data, the mean becomes 80. What was the number of items in the original data?
A) 20 B) 22 C) 40 D) 15
50. Which of the following would be an appropriate average for determining the average shoe-size?
A) Arithmetic Mean B) Median C) Mode D) Harmonic Mean
51. What is a Firewall in the context of computers?
A) A Physical separation of a machine from the Internet so that no one can gain access
B) A sophisticated Anti-Virus Software
C) A sophisticated Anti-Virus Algorithm implemented directly in hardware, making it impossible to subvert
D) A collection of software & hardware components, placed between two systems, that reduces the risk to a single system in a multi-system environment
52. A handheld computer known as a PDA stands for:
A) Personal Digital Assistant. B) Personalized Digital Assistance.
C) Planned Digital Associate D) Practical Digitized Associate.

53. In MS-WORD, which of the following is used to create newspaper style columns?
 A) Format Columns B) Insert Table
 C) Format Tab D) Insert Text Columns
54. In Microsoft Power Point, a _____ is a special effect used to introduce a slide during a slide show.
 A) Customer animation B) Transition C) Portrait D) Slide sorter view
55. Which of the following statements is correct ?
 A) An excel file may contain only one pivot table.
 B) An excel workbook may contain multiple worksheets
 C) An excel workbook may contain only one pivot table
 D) An excel spreadsheet may contain multiple workbooks

Directions: For the next TWO questions (56 & 57), consider the following MS-EXCEL worksheet:

	A	B	C	D	E
1	No.	Exam I	Exam II	Total	
2	1	80	60	140	
3	2	70	50	120	
4	3	40	30	70	
5	4	30	32	62	
6	5	85	85	170	
7	6	65	80	145	
8	7	72	96	168	
9	8	25	32	57	
10	9	90	78	168	
11	10	25	40	65	

56. The formula =IF(B10 + C10 > 100, IF(D10 > 100, "A", "B"), "C") in cell D12 will result in
 A) A B) B C) C D) AC
57. The formula =SUMIF(B2:B11, "<50", D2:D11) in cell D13 will result in
 A) 120 B) 254 C) 90 D) 244
58. A virus type that is capable of shifting from one computer to another without user interaction is known as a
 A) Worm B) Trojan C) Logic bomb D) Boot sector
59. Consider the following lists:

List I

1. Linux
2. Mozilla Firefox
3. Notepad
4. JPEG

List II

- P. Text File Editor
- Q. Image File format
- R. Operating System
- S. Web Browser

The correct match is :

- A) 1 → R, 2 → S, 3 → P, 4 → Q B) 1 → S, 2 → R, 3 → Q, 4 → P
 C) 1 → R, 2 → P, 3 → S, 4 → Q D) 1 → Q, 2 → S, 3 → P, 4 → R
60. With regard to computer memory, which of the following statement (s) is/are TRUE?
 P: Read Only Memory (ROM) is 'volatile' memory.
 Q: Random Access Memory (RAM) is 'volatile' memory.
 R: Secondary Memory is 'volatile' memory.
 A) P only B) Q only C) P and Q only D) P and R only

Answer Key : A-series

(17-08-2025)

Q.No.	Ans	Q.No.	Ans	Q.No.	Ans
1	C	21	C	41	D
2	A	22	B	42	D
3	D	23	A	43	B
4	C	24	B	44	D
5	B	25	A	45	C
6	C	26	B	46	C
7	D	27	C	47	C
8	B	28	D	48	B
9	B	29	B	49	D
10	B	30	A	50	C
11	C	31	D	51	D
12	D	32	C	52	A
13	C	33	C	53	A
14	A	34	A	54	B
15	B	35	B	55	B
16	C	36	B	56	A
17	D	37	B	57	B
18	A	38	D	58	A
19	A	39	D	59	A
20	D	40	A	60	B