

DAV ADMISSION TEST(DATCSP)
for
COMMERCE & HUMANITIES

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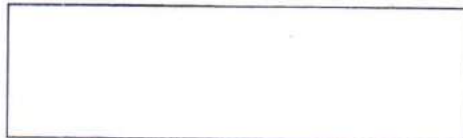


TIME : 3 HOURS
(1.30 P.M. TO 4.30 P.M.)

Guidelines to the Candidates:

1. This Booklet contains **12** printed pages and some blank pages for rough work. Any defect found should be brought to the notice of the invigilator immediately.
2. Fill in the particulars in the OMR Sheet given to you separately as per the directions given therein.
3. Use Blue/Black Ball Point Pen only for writing particulars/markings responses in OMR Sheet. **Use of Pencil is strictly prohibited.**
4. This test is of **THREE** hours duration.
5. There are four choices in every question as A, B, C and D. There is only one correct response for each question. Each question carries 4 marks.
6. (i) The test consists of 100 multiple choice questions comprising Mental Ability (20); Mathematics (30), Social Science (20), English (30) carrying maximum of 400 marks.
(ii) -1 mark will be awarded for each wrong answer/multiple answer.
(iii) No mark will be awarded for any overwriting/scratching answer.
7. No candidate shall leave his/her seat during the examination.
8. Do not tear/remove any page of this booklet.
9. Calculation, if any, may be done at the blank pages of this booklet provided at the end for rough work.
10. Calculator and other electronic gadgets are not allowed.
11. After finishing the test the OMR Sheet is to be handed over to the invigilator before leaving the Examination Hall.

FASCIMILE STAMP



MENTAL ABILITY

01. If in a certain language 'CLOCK' is written as 'MDNLD', then how 'PRESENT' will be code in that language .

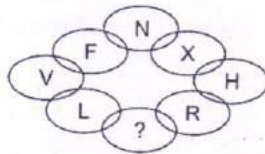
- (a) FOSQRU (b) FSQRUOF (c) FSQRUMF (d) FSQROMF

02. Find the next number in the series.

1, 8, 9, 64, 25, 216, 49, ?

- (a) 265 (b) 512 (c) 343 (d) 215

03. Insert the missing letter in the diagram below.

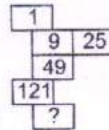


- (a) C (b) B (c) Z (d) A

04. In a question, $55 + 10 = 20$ and $45 + 40 = 49$, then how $95 + 70 = ?$

- (a) 165 (b) 84 (c) 155 (d) 48

05. Identify which alternate replace the question mark ?



- (a) 165 (b) 169 (c) 167 (d) 144

06. Find the odd figure out .

- (a) (b) (c) (d)

07. Which of the following is the mirror image of 'CORDIAL', if the mirror is placed below the word ?

- (a) COBDIAL (b) COBDIAT (c) COBJDID (d) JAIROOC

Directions (Q. Nos. 08 - 10) Read the following information carefully and answer the questions given below.

A, B, C, D, E, F and G are sitting around a circle facing at the centre having dinner not necessarily in same order. E is neighbour of A and D. G is not between F and C. F is to the immediate right of A.

08. Which of the following does not have the pair of persons sitting adjacent to each other?

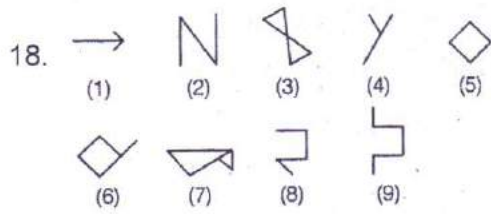
- (a) BA (b) CB (c) DE (d) GD

09. Which of the following pairs has the second person sitting immediately to the right of the first?
- (a) AB (b) CB (c) EA (d) GC
10. What is the position of F?
- (a) Third to the left of C (b) Second to the right of C
- (c) To the immediate left of A (d) None of these

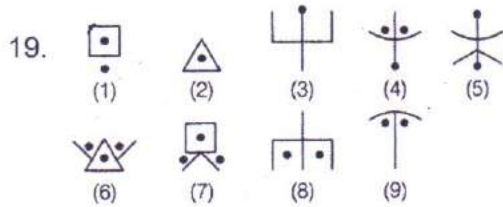
Directions (Q. Nos. 11 - 13) In each of the following questions, four numbers are given out of these, three are alike in a certain way but the one is different. Choose the one which is different from the rest three.

11. (a) 21 (b) 39 (c) 51 (d) 83
12. (a) 372164 (b) 376821 (c) 318951 (d) 319446
13. (a) 11 (b) 13 (c) 15 (d) 17
14. If Anita is taller than Surjit but shorter than Kusum and Surjit is just as tall as Kalpana but taller than Vanita, then Kalpana is
- (a) just as tall as Anita (b) taller than Kusum
- (c) Shorter than Anita (d) Shorter than Surjit
15. Alok walked 30 m towards East and took a right turn and walked 40 m. He again took a right turn and walked 50 m towards. Which direction is he from his starting point ?
- (a) South (b) West (c) South-West (d) South-East
16. In a queue of children, Kashish is fifth from the left and Mona is sixth from the right. When they interchange their places between them, Kashish becomes thirteenth from the left. What will be Mona's position from the right?
- (a) 4th (b) 8th (c) 14th (d) 15th
17. The priest told the devotee, "The temple bell rings at regular intervals of 45 min. The last bell was rung 5 min ago, The next bell is due to ring at 7 : 45 am". At what time did the priest give this information to the devotee ?
- (a) 7 : 40 am (b) 7 : 05 am (c) 7 : 00 am (d) 6 : 55 am

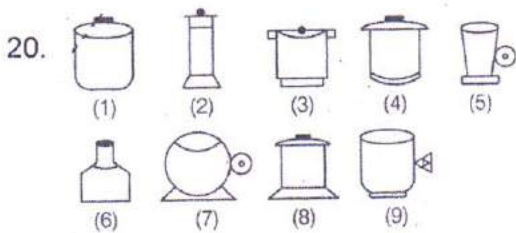
Directions (Q. Nos. 18 - 20) In each of the following question, group the given figures into three classes using each figure only once.



- | | |
|-----------|-----------|
| (a) 1,5,6 | (b) 1,2,4 |
| 2,3,4 | 3,5,8 |
| 7,8,9 | 6,7,9 |
| (c) 5,6,7 | (d) 1,2,4 |
| 1,2,4 | 3,5,7 |
| 3,8,9 | 6,8,9 |



- | | |
|-----------|-----------|
| (a) 1,7,8 | (b) 1,8,9 |
| 2,6,5 | 2,3,5 |
| 3,4,9 | 4,6,7 |
| (c) 2,3,5 | (d) 2,6,7 |
| 1,7,8 | 1,3,4 |
| 4,6,9 | 5,8,9 |



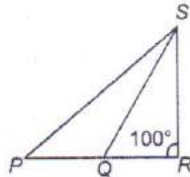
- | | |
|-----------|-----------|
| (a) 1,4,6 | (b) 2,3,8 |
| 2,3,8 | 4,5,7 |
| 5,7,9 | 1,6,9 |
| (c) 5,7,9 | (d) 1,4,6 |
| 3,4,8 | 2,3,5 |
| 2,9,1 | 6,7,8 |

MATHEMATICS

21. If $(x + y) = 12$ and $xy = 32$, then $\left(\frac{1}{x} + \frac{1}{y}\right)$ is equal to .

- (a) $\frac{2}{8}$ (b) $\frac{1}{8}$ (c) $\frac{1}{2}$ (d) $\frac{3}{8}$

22. In the figure below, $PQ = QS$, $QR = RS$ and $\angle SRQ = 100^\circ$. Find $\angle QPS$



- (a) 20° (b) 40° (c) 15° (d) 35°

23. If cost price of a fan is Rs.720. If there is a profit of $16\frac{2}{3}\%$. Then, sale price is

- (a) Rs.840 (b) Rs.940 (c) Rs.1050 (d) None of these

24. If $\angle A = (3x - 5)$, $\angle B = (5x + 8)$, $\angle C = (7x - 3)$, then the value of x in $\triangle ABC$ is

- (a) 12° (b) 24° (c) 28° (d) 30°

25. If $\tan A = \frac{5}{6}$ and $\tan B = \frac{1}{11}$, then $(A+B)$ is equal to

- (a) $\frac{\pi}{2}$ (b) $\frac{\pi}{4}$ (c) $\frac{3\pi}{2}$ (d) None of these

26. A horse is tied to a post by a rope. If the horse moves along a circular path always keeping the rope tight and describes 88 m when it has traced out 72° at the centre, then the length of the rope is

- (a) 72 m (b) 70 m (c) 85 m (d) 80 m

27. If $x = 5$, $y = 3$ and $z = 2$, then the value of $x^2 + y^2 + z^2 - 2xy + 2yz - 2zx$ is equal to

- (a) 0 (b) 10 (c) 25 (d) 125

28. The value of $\frac{2.48 \times 2.48 - 1.52 \times 1.52}{0.96}$ is

- (a) 4 (b) 16 (c) 0.96 (d) None of these

29. If $b = 4$, $c = 9$, then the value of $\sqrt{bc} + \sqrt{b} + 5$ is

- (a) 11 (b) 13 (c) 17 (d) 19

30. If the volume of a cube is 729 cm^3 , then the length of its diagonal is

- (a) $9\sqrt{3}$ (b) $6\sqrt{3}$ (c) $8\sqrt{3}$ (d) $7\sqrt{3}$

31. If $\cot\theta = \frac{7}{8}$, then the value of $\frac{(1+\sin\theta)(1-\sin\theta)}{(1+\cos\theta)(1-\cos\theta)}$ is

- (a) $\frac{40}{65}$ (b) $\frac{49}{64}$ (c) $\frac{45}{54}$ (d) $\frac{49}{74}$

32. The shadow of a tower is 15 m, when the Sun's elevation is 30° . What is the length of the shadow, when the Sun's elevation is 60° ?

- (a) 3 m (b) 4 m (c) 5 m (d) 6 m

33. 30% of a three-digit number is 190.8. What will be 125% of that number?

- (a) 759 (b) 779 (c) 785 (d) 795

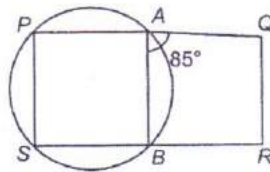
34. The total cost of 12 pens and 5 pencils is equal to Rs.111. Also, the cost of 1 pencil is Rs.5 less than the cost of 1 pen. What will be the cost of 8 pens and 9 pencils?

- (a) Rs.89 (b) Rs.91 (c) Rs.97 (d) Rs.98

35. Sum of roots is -1 and sum of their reciprocal is $\frac{1}{6}$, the equation is

- (a) $x^2 - 6x + 1 = 0$ (b) $x^2 - x + 6 = 0$ (c) $6x^2 + x + 1 = 0$ (d) $x^2 + x - 6 = 0$

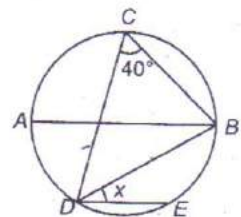
36. Find the value of $\angle PQR$, if it is known that PQRS is a parallelogram.



- (a) 80° (b) 85° (c) 90° (d) 95°

37. In the figure shown, if AB is the diameter of the circle, find the value of x.

- (a) 40°
(b) 50°
(c) 60°
(d) 70°



38. A cone of radius 5 cm is filled with milk. If the milk is poured into a cylinder of radius 10 cm, the height of milk rises by 2 cm. Height of the cone is

- (a) 20 cm (b) 22 cm (c) 24 cm (d) 26 cm

39. What is the length of the longest rod which can be placed in a cube of total surface area of 1176 cm^2 ?

- (a) 7 cm (b) 14 cm (c) $7\sqrt{3} \text{ cm}$ (d) $14\sqrt{3} \text{ cm}$

40. Find the value of $\frac{1}{3}(\cos^2 30^\circ - \sin^2 45^\circ) + 2(\sin^4 60^\circ - \sec^4 45^\circ) + \frac{2}{3}\tan^2 60^\circ$

- (a) $\frac{65}{24}$ (b) $\frac{4}{3}$ (c) $\frac{24}{65}$ (d) None of these

41. If $\cos\theta - \sin\theta = \sqrt{2}\sin\theta$, then what is the value of $\cos\theta + \sin\theta$?

- (a) $\sqrt{2}\cos\frac{\theta}{2}$ (b) $\frac{\operatorname{cosec}\theta}{2}$ (c) $\sin\theta$ (d) $\cos\theta$

42. The formula for mean is

- (a) $\bar{x} = a + \frac{\sum fd}{N}$ (b) $\bar{x} = a + \frac{\sum f}{dN}$ (c) $\bar{x} = a - \frac{\sum fd}{N}$ (d) None of these

43. The mean weekly pay for ten persons equals to Rs.100, if one of the persons gets a hike of Rs.10 per week, what is the new mean weekly pay?

- (a) Rs. 99 (b) Rs. 101 (c) Rs. 200 (d) Rs. 250

44. Probability that a number selected from 1, 2, 3, 4, ..., 35 is a prime number, is

- (a) $\frac{13}{35}$ (b) $\frac{12}{35}$ (c) $\frac{9}{35}$ (d) $\frac{11}{35}$

45. What is the probability of selecting a consonant from a set of 26 alphabets?

- (a) $\frac{21}{26}$ (b) $\frac{20}{26}$ (c) $\frac{11}{13}$ (d) $\frac{5}{26}$

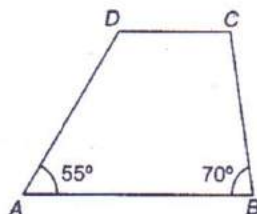
46. If 24 clerks can clear 180 files in 15 days, then the number of clerks required to clear 240 files in 12 days, is

- (a) 38 (b) 40 (c) 42 (d) 44

47. The ratio of angles of a triangle is as 2:3:4. The angles of triangle are respectively,

- (a) $30^\circ, 60^\circ, 90^\circ$ (b) $40^\circ, 60^\circ, 80^\circ$ (c) $30^\circ, 85^\circ, 85^\circ$ (d) $30^\circ, 95^\circ, 95^\circ$

48. In the adjoining figure, ABCD is a trapezium in which $AB \parallel DC$. If $\angle A = 55^\circ$ and $\angle B = 70^\circ$, then the value of $\angle C$ and $\angle D$ is



- (a) 75° and 85° (b) 90° and 120° (c) 110° and 125° (d) 115° and 120°

49. A 4 cm cube is cut into 1 cm cubes. What is the ratio of surface area of small cubes to that of the large cube?

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

50. If the probability of winning a game is $\frac{9}{11}$, then what is the probability of it's losing?

- (a) $\frac{2}{11}$ (b) $\frac{7}{9}$ (c) $\frac{2}{9}$ (d) $\frac{7}{11}$

SOCIAL SCIENCE

51. What power did the Rowlatt Act give to the government ?
(a) To repress political activities (b) To imprison people without trial
(c) to tighten their control over indians (d) all of these
52. In which year Mahatma Gandhi organised a satyagrah to support the peasants of the Kheda district of Gujarat ?
(a) 1917 (b) 1916 (c) 1914 (d) 1915
53. A pledge for the attainment of complete independence was declared on
(a) January 26, 1930 (b) January 26, 1929
(c) January 26, 1931 (d) August 15, 1947
54. Gandhiji called off the Non-cooperation Movement due to
(a) Jallianwala Bagh incident (b) Tribal agitation
(c) Chauri Chaura incident (d) All of these
55. Who wrote 'Vande Mataram' ?
(a) Bankim Chandra Chattopadhyay (b) Rabindranath Tagore
(c) Abanindranath Tagore (d) Ravi Varma
56. Studies on political and social inequalities in democracy show that
(a) democracy and development go together
(b) inequalities exist in democracies
(c) inequalities do not exist under dictatorship
(d) dictatorship is better than democracy
57. What type of challenge is faced by a non-democratic country for democratic set up ?
(a) Foundational Challenge (b) Challenge of deepening
(c) Challenge of expansion (d) Challenge of money power
58. Which is the most visible institution of democracy ?
(a) Elections (b) Adult Franchise
(c) Political parties (d) Seats reservation
59. The government in which people have the right to know the decisions and have the right and the means to examine the process of decision making.
(a) dictatorship (b) accountable government
(c) responsive government (d) legitimate government
60. A political party is composed of
(a) leaders (b) active members
(c) followers (d) all of these
61. Which of the following is a characteristic of plantation agriculture ?
(a) Large area (b) Single crop
(c) Capital intensive (d) All of these
62. Which have a high level of protein
(a) Pulses (b) Staple food crops (c) Beverages (d) All of these

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63. Iron and steel industry is classified as a
- (a) Light industry (b) Cottage industry
(c) Basic industry (d) Agro-based industry
64. Which of the following industries cause water pollution ?
- (a) Paper (b) Tanneries (c) Chemical (d) All of these
65. BALCO is associated with which of the following ?
- (a) Aluminium smelting (b) Cement industry
(c) Fertilizer industry (d) Chemical industry
66. Which one of the following is a major reason that prevents the poor from getting loans from the banks ?
- (a) Lack of capital (b) High rate of interest
(c) Absence of collateral (d) Absence of mediators
67. Which one of the following does not come under terms of credit ?
- (a) Interest rate (b) Employment
(c) Collateral (d) Mode of repayment
68. When was the Consumer protection Act amended ?
- (a) In 1990 and 1992 (b) In 1992 and 1995
(c) In 1989 and 1991 (d) In 1991 and 1993
69. Which organisation provides redressal to consumer grievances ?
- (a) Consumer Protection Council (b) Consumer Protection Act
(c) AGMARK (d) ISI
70. Which one of the following is not given on the packing of commodities ?
- (a) Price (b) Batch number
(c) Expiry date (d) Name of the Manufacturer

ENGLISH

Directions:(Q. Nos. 71-76) Read the following passage carefully and answer the questions that follow it. Certain words/expressions are given in **bold** in the passage to help you locate them while answering some of the questions.

"My God! it speaks" uttered the Emperor of Brazil and the receiver of the Telephone slipped from his hand and banged aground. At the other end Alexander Graham Bell was still on line.

This incident goes back to 1876 when at an exhibition in Philadelphia (USA), Alexander Graham Bell was giving a demonstration of his invention. This strange instrument known as Telephone was to **revolutionize** life in the years to come.

Bell was born at Edinborough, Scotland. He was a teacher and , was **dedicated** to the noble cause of teaching the deaf and dumb. Due to a severe illness, Bell was sent to Canada in 1870, where too he got engaged in helping the dumb-deaf to hear and speak. Thereafter, he shifted to the USA but **continued** with his work by opening a school for deaf and dumb.

Bell was fond of scientific inventions and was ever engaged in making some machines in his spare time . While at Boston he tried to communicate through metal wire. His companion in this work was Watson. One day while experimenting with his instrument , Bell spoke to Watson, standing at a distance taken by a **pleasant** surprise as he had heard Bell clearly through his instrument. The instrument was a success and Bell patented it. Graham Bell had some sterling qualities of head and heart. Apart from being an artist, he was a kind human being, ready to help the needy. He established an institution for the deaf and dumb children. He died in 1922 in Canada. The entire northern America paid him a tribute by hanging up their telephones for a while during his funeral.

Directions.(Q.Nos.81-90): In the following passage there are blanks, each of which has been numbered. These numbers are printed after the passage and against each, four words are suggested, one of which fits the blank appropriately. Find out the appropriate word in each case.

The Indian Meteorological Department has sought permission to 81 a Doppler Matter radar system used for long range weather forecasting. The Government 82 equipment in the wake of 26/7 and 83 to find a suitable location has been on 84 then. The key factor is that the radar's antenna is to be installed in an 85 area of a few square kilometers far from high rises, 86 at an altitude. The radar would also need to be 87 near the coast as it would be used to 88 high intensity storms or cyclones. MHCC has hinted it is willing to 89 clearance for the Colaba site, but only after 90 the location.

81. (a) detach (b) install (c) Launch (d) fix
82. (a) granted (b) realized (c) obtained (d) seen
83. (a) try (b) project (c) commission (d) work
84. (a) since (b) until (c) already (d) at
85. (a) inseparable (b) encumbered (c) unenumbered (d) occupied
86. (a) hopelessly (b) haping (c) enacting (d) preferably
87. (a) erected (b) located (c) stalled (d) tied
88. (a) deduct (b) examine (c) feel (d) detect
89. (a) advocate (b) launch (c) pass (d) grant
90. (a) examining (b) study (c) scanning (d) combing

Directions.(Q.Nos.91-93): In the following questions, out of the four alternatives, choose the one which best expresses the meaning of the given word.

91. Felicitated
(a) admired (b) adored (c) encouraged (d) congratulated
92. Honour
(a) determination (b) courage (c) respect (d) discipline
93. Rectify
(a) clarify (b) condone (c) correct (d) regularise

Directions.(Q.Nos.94-96): In the following questions, some parts of the sentences have errors and some are correct. Find out which part of a sentence has an error. **The number of that part is the answer.** If you find the sentence to be without any error, you should opt for the option-No error.

94. The kitchen need painting badly and I must get it done
(a) need painting badly (b) the kitchen
(c) and I must get it done (d) No error

95. If I will play my best I can win any day against anybody

- (a) against anybody (b) I can win any day
(c) If I will play my best (d) No error

96. He finds fault at everything I do.

- (a) He finds fault (b) at everything
(c) I do (d) No error

Directions(Q.Nos.97-100) : Out of the four alternatives given in the following questions, choose the one which can be substituted for the given words/sentences.

97. An apartment building in which each apartment is owned separately by the people living in it, but also containing shared areas.

- (a) Condominium (b) Multiplex (c) Duplex (d) Apartplex

98. Operation of the body after death.

- (a) Postmortem (b) Obituary (c) Homage (d) Mortuary

99. A political leader who tries to get support by making false claims and promises and using arguments based on emotion rather than reason.

- (a) Dictator (b) Tyrant (c) Popularist (d) Demagogue

100. Fear of being in closed or small spaces.

- (a) Closophobia (b) Clusterophobia (c) Claustrophobia (d) Liftophobia