

2024

SKILL ENHANCEMENT COURSE

Paper: SEC011503

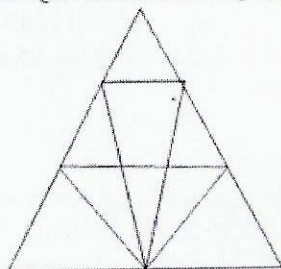
(QUANTITATIVE APTITUDE AND REASONING)

Full Marks: 30

Time: $1\frac{1}{2}$ hours

1. Answer the following: 1X5=5
 - a) At present the ratio between the ages of Arun and Deepak is 4:3. After 6 years, Arun's age will be 26 years. What is the age of Deepak at present?
A. 12 years B. 15 years C. 19.5 years D. 21 years
 - b) I gain 70 paise on Rs. 70. My gain percent is
A. 0.1% B. 1% C. 10% D. 7%
 - c) A car moves at the speed of 80km/hr. What is the speed of the car in meters per second?
A. 8m/sec B. $20\frac{1}{9}$ m/sec C. $22\frac{2}{9}$ m/sec D. None of these
 - d) Which of the following does not fit into the series?
 $\frac{4}{5}, \frac{7}{15}, \frac{1}{15}, -\frac{1}{5}, -\frac{8}{15}$
A. $\frac{7}{15}$ B. $\frac{1}{15}$ C. $-\frac{1}{5}$ D. $-\frac{8}{15}$
 - e) Ajit pointed at Abhijit and said 'I am the only son of one of the sons of his father.' How is Ajit related to Abhijeet?
A. Brother B. Uncle C. Grandfather D. Nephew
2. Answer any five: 2X5=10
 - a) If $a:b=5:9$ and $b:c=4:7$ then find $a:b:c$?
 - b) Find the simple interest on Rs. 68,000 at $16\frac{2}{3}\%$ per annum for 9 months.
 - c) The average weight of A, B and C is 45kg. If the average weight of A and B be 40 kg and that B and C be 43 kg. Find the weight of B.
 - d) If a radio is purchased for Rs. 490 and sold for Rs. 465.50. Find the loss percent.

- e) The present age of a father is 3 years more than three times the age of his son. Three years hence, father's age will be 10 years more than twice the age of the son. Find the present age of the father.
- f) If HONESTY is written as 5132468 and POVERTY is written as 7192068, then in the same code, how will be HORSE written?
- g) Find the number of triangles in the following figure



- h) Represent the following in the form of Venn diagram: New Delhi, Sri Lanka, Asia.
- i) A boat covers 12 km in 2 hrs downstream and the same distance in 4 hrs upstream. The speed of the stream is one-third that of the boat in still water. What is the speed of the boat in still water?
- j) Two friends started from two places to meet each other. When and where will they come across each other? To get the answer which of the following is/are necessary/sufficient?
- A started from Delhi at 60 km/hr for Panipat at 9 am
 - B started for Delhi from Panipat at 10 am
 - Panipat is 200 km from Delhi
- A. Only I and II are sufficient
 B. Only I and III are sufficient
 C. Only II and III are sufficient
 D. All together are even not sufficient

3. Answer any three:

5X3=15

- a) (i) Find the fourth proportional to 4, 9, 12 1
- (ii) Find the third proportional to 16 and 36 1
- (iii) Find the mean proportional between 0.08 and 0.18 1

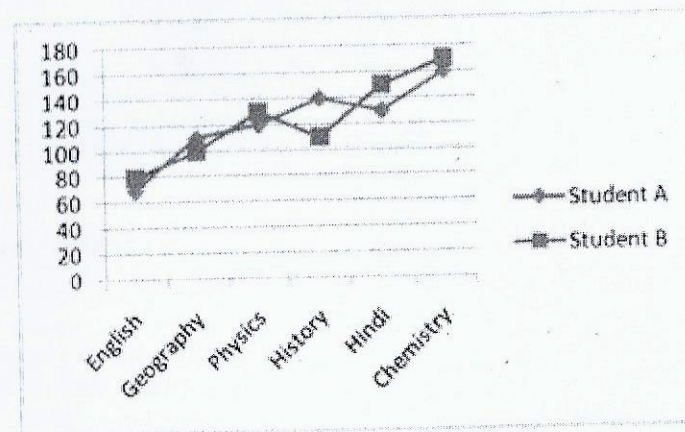
(iv) If $x:y=3:4$, find $(4x+5y):(5x-2y)$

- b) While covering a distance of 24 km, a man noticed that after walking for 1 hour and 40 min, the distance covered by him was $\frac{5}{7}$ of the remaining distance. What was his speed in meters per second? (5)
- c) A sum of money doubles itself at compound interest in 15 years. In how many years will it become eight times? 5
- d) Study the following graphs carefully and answer the questions given below it. 5

Marks obtained by two students in six subjects in an examination.

Maximum marks in Physics, Chemistry and English are 200.

Maximum marks in History, Geography and Hindi are 150.



- (i) Marks obtained by student B in Hindi was what percentage of the marks obtained by student B in Physics?
- (ii) Approximately what was the average percentage of marks obtained by A in all the subjects?
- (iii) Approximately what was the average marks obtained by B in Geography History and Hindi?

(iv) If $x:y=3:4$, find $(4x + 5y):(5x - 2y)$

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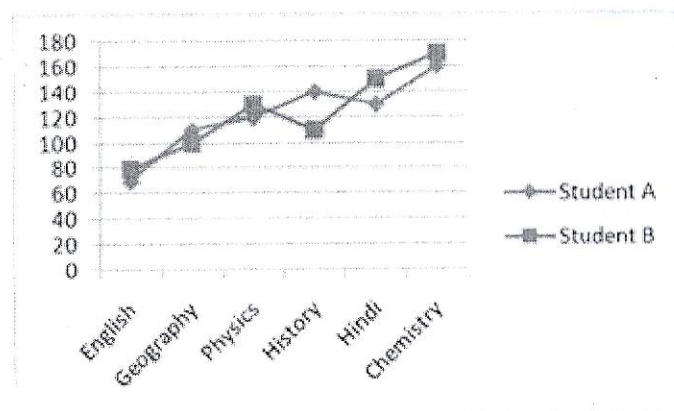
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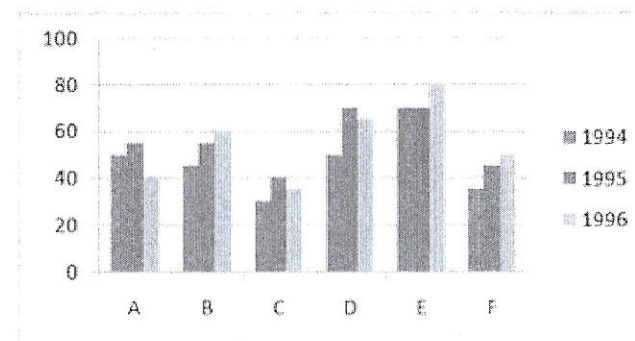
(iii) Approximately what was the average marks obtained by B in Geography History and Hindi?

(iv) In how many subjects did student B obtain more than 70 percentage of marks?

(v) What was the difference in percentage of marks between A and B in History?

e) Study the following graph carefully and answer the questions that follow. 5

Production of steel by different companies in three consecutive years (in lakh tones)



(i) What is the difference between average production of the six companies in 1995 and average production of the same companies in 1994?

(ii) What is the percentage decline in production by company C from 1995 to 1996?

(iii) Which company recorded the minimum growth from 1994 to 1995?

(iv) Production of company C in 1995 and production of company F in 1994 together is what percentage of production of B in 1996?

(v) In which pair of companies the difference between average production for the three years is maximum?

f) The table given below shows the distribution of students of three classes according to the sport they like. Some values are hidden intentionally in the table. Study the table and select the most appropriate answer. 5