

KMAT Karnataka Question Paper

MATHEMATICAL SKILLS

Directions (1-5) : What **approximate** value should come in place of the question mark (?) in the following questions? (Note: You are not expected to calculate the exact value.)

- $\sqrt{1850} = ?$
 - 43
 - 56
 - 32
 - 28
 - 49
- $17.998 \times 23.005 \times 11.99 = ?$
 - 3824
 - 4055
 - 5138
 - 5446
 - 4964
- $9876.5 \div 18.5 \div 3.2 = ?$
 - 128
 - 194
 - 152
 - 167
 - 179
- $(18.6)^3 = ?$
 - 7245
 - 5225
 - 6435
 - 7705
 - 8045
- $\frac{2225}{7} \times \frac{867}{5} \times \frac{119}{4} = ?$
 - 1511345
 - 1639714
 - 1851216
 - 1420165
 - 1583628
- In how many different ways can the letters of the word 'CREAM' be arranged?
 - 480
 - 120
 - 260
 - 25
 - None of these
- What will be the difference between the simple interest and compound interest accrued on an amount of ₹ 19,200/- at the end of 3 years @ 12 p.c.p.a?
 - ₹ 722.6826
 - ₹ 802.5144
 - ₹ 862.6176
 - ₹ 798.1824
 - None of these
- A 240 metre long train crosses a platform in 20 seconds. What is the speed of the train ?
 - 10 metres/sec.
 - 12 metres/sec.
 - 18 metres/sec.
 - Cannot be determined
 - None of these
- The number obtained after interchanging the two digits of a two digit number is greater than the original number by 9. If the sum of the two digits of the number is 13, what is the original number?
 - 67
 - 58
 - 76
 - Cannot be determined
 - None of these
- The average of the ages of a man and his daughter is 34. If the respective ratio of their ages four years from now is 14 : 5, what is the daughter's present age?
 - 12
 - 18
 - 10
 - Cannot be determined
 - None of these
- Two trains of lengths 80m and 120m respectively are travelling in the same direction. If the first train travelling a speed of 80 Kmph crosses the second train in 24 seconds, then the speed of the second train is :

23. What is the total production of Company A (in lakh tons) for the given years ?
- (1) 2855 (2) 2750
 (3) 3000 (4) 3125
 (5) None of these
24. **Approximately** what is the average production of Company B (in lakh tons) for the given years ?
- (1) 400 (2) 380
 (3) 410 (4) 325
 (5) 355
25. What is the percentage fall in production of Company A in the year 2012 over the year 2011 ? (rounded off to the nearest integer)
- (1) 19 (2) 24
 (3) 23 (4) 21
 (5) None of these

Directions (26–30) : These questions are based on the following table. Study it carefully and answer the questions.

Marks obtained by six students in different subjects

Subject \ Students	History (out of 75)	Geography (out of 60)	Maths (out of 120)	Science (out of 150)	English (out of 100)	Hindi (out of 50)
A	45	43	95	135	64	36
B	56	36	105	140	72	28
C	46	52	100	120	76	42
D	62	48	110	100	58	38
E	60	50	99	125	70	40
F	58	54	112	90	68	34

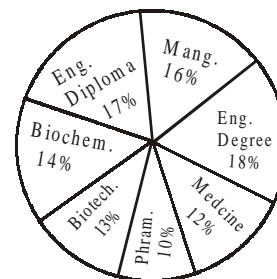
26. Which student has obtained the highest marks in the three subjects History, Geography and Maths together ?
- (1) D (2) B
 (3) F (4) E
 (5) None of these
27. What is the average percentage of marks obtained by the students in Science ? (rounded off to the nearest integer)
- (1) 79 (2) 77
 (3) 87 (4) 88
 (5) None of these

28. What is the ratio between total marks obtained by D and E respectively ?
- (1) 104 : 115 (2) 114 : 105
 (3) 101 : 14 (4) 52 : 57
 (5) None of these
29. What is the overall percentage of marks obtained by 'B' in all subjects together (rounded off to two digits after decimal) ?
- (1) 73.78 (2) 78.74
 (3) 77.74 (4) 74.77
 (5) None of these
30. What are the average marks obtained by the students in Geography?
- (1) 46 (2) $40\frac{2}{3}$
 (3) 47 (4) $47\frac{1}{6}$
 (5) None of these

Directions (31-35) : Study the following data carefully to answer these questions.

Details about the distribution of students over various disciplines in an institute

Total No. of students = 2400



Ratio of Male (M) : Female (F)

Discipline	Ratio	
	M	F
Management	5	7
Engin. Degree	5	3
Medicine	4	5
Pharmacy	8	7
Biotechnology	6	7
Biochemistry	5	9
Engineering Dip.	9	8

31. What is the difference between the number of male and female students studying Engineering Degree?
- (1) 48
(2) 24
(3) 108
(4) 112
(5) None of these
32. How many female students are studying Management ?
- (1) 216
(2) 212
(3) 162
(4) 160
(5) None of these
33. What is the ratio between number of male students studying Medicine and the number of female students studying Pharmacy respectively?
- (1) 4 : 7
(2) 8 : 7
(3) 8 : 5
(4) 4 : 5
(5) None of these
34. Number of females students studying Engineering Diploma is what per cent of the total number of students studying in the Institute ?
- (1) 8
(2) 12
(3) 9
(4) 7
(5) None of these
35. What is the ratio between total number of students studying Biochemistry and the total number of students studying Biotechnology respectively ?
- (1) 13 : 15
(2) 13 : 17
(3) 14 : 17
(4) 14 : 13
(5) None of these

Directions (36-40): These questions are based on the data given in following table.

Number of candidates appeared and qualified in a written examination from six states over the years

State	A		B		C		D		E		F	
Year	App.	Qual.	App.	Qual.	App.	Qual.	App.	Qual.	App.	Qual.	App.	Qual.
2006	1260	240	2080	350	1600	275	2450	420	1800	270	3200	380
2007	840	190	2250	400	1700	290	2875	480	1950	290	3180	360
2008	1100	220	1850	320	1650	260	2700	450	2640	340	3520	430
2009	1425	300	1900	360	1820	280	3150	510	3380	310	3460	400
2010	1200	225	1680	280	1680	300	3200	515	2420	380	3380	390
2011	1050	240	1800	300	1900	350	3360	540	2250	360	3900	480

36. What per cent of candidates appeared from State 'C' in 2008 have qualified (rounded off to two digits after decimal)?
- (1) 15.26
(2) 15.00
(3) 16.25
(4) 16.76
(5) None of these
37. **Approximately** what is the average number of candidates appeared from State 'A' for all the given years ?
- (1) 1250
(2) 1050
(3) 1200
(4) 1100
(5) 1150
38. What is the overall percentage of candidates qualified over appeared from all the states together in 2007 (rounded off to the nearest integer)?
- (1) 16
(2) 15
(3) 17
(4) 14
(5) None of these
39. What is the respective ratio between the number of candidates qualified from State 'E' in 2006, 2007 and 2008 together and the number of candidates qualified from State 'D' in 2009, 2010 and 2011 together?
- (1) 17 : 31
(2) 13 : 17
(3) 180 : 313
(4) 170 : 313
(5) None of these
40. During which of the following years the percentage increase/decrease in number of candidates appeared from the previous year is the highest for State 'B' ?
- (1) 2007
(2) 2010
(3) 2009
(4) 2008
(5) 2011