

# FIITJEE INTERNAL MOCK TEST-1

for

*Mukhyamantri Vigyan Pratibha Pariksha*

(All Class IX Batches)

(MAT)

Time: 120 Minutes

Maximum Marks: 100

Please read the instructions carefully.

## INSTRUCTIONS

**A: General :**

1. Immediately fill in the particulars on this page of the Test Booklet with Blue/Black Ball point pen.
2. Use **Blue/Black Ball Point Pen only** for writing particulars on **Side-1** and **Side-2** of the Answer Sheet. **Use of pencil is strictly prohibited.**
3. Darken the appropriate bubbles with **HB Pencil** only.
4. Blank papers, clipboards, log tables, slide rules, calculators, cellular phones, pagers and electronic gadgets in any form are not allowed.
5. The answer sheet, a machine-gradable Objective Response Sheet (ORS) is provided separately.
6. Do not Tamper/mutilate the **ORS** or this booklet.
7. No additional sheets will be provided for rough work
8. On completion of this test, the candidate must hand over the Answer Sheet to the Invigilator on duty in the Room/Hall. **However, the candidates are allowed to take away this Test Booklet with them.**

**B: Questions paper format and Marking Scheme :**

1. The question paper consists of 100 questions.
2. For each question you will be **awarded 1 mark** if you darken the bubble corresponding to the correct answer and zero mark if no bubbles is darkened or your response is incorrect.

Enrollment No. :             Batch : \_\_\_\_\_

Name : \_\_\_\_\_

Candidate's Signature \_\_\_\_\_ Invigilator's Signature: \_\_\_\_\_

**Directions (Questions 1 – 5):** Select the combination of numbers so that letters arranged accordingly will form a meaningful word.

1. T A E W R  
1 2 3 4 5  
(A) 5 2 1 3 4 (B) 3 1 5 2 4  
(C) 2 4 1 3 5 (D) 4 2 1 3 5
2. Y P P H A  
1 2 3 4 5  
(A) 4 5 2 3 1 (B) 2 1 5 3 4  
(C) 4 1 2 3 5 (D) 3 5 2 1 4
3. U R B N E M  
1 2 3 4 5 6  
(A) 6 4 3 5 1 2 (B) 4 1 6 3 5 2  
(C) 5 3 1 2 4 6 (D) 3 5 1 2 4 6
4. E O H U S  
1 2 3 4 5  
(A) 3 2 4 5 1 (B) 2 4 1 5 3  
(C) 5 2 3 4 1 (D) 5 1 4 3 2
5. B T L A E  
1 2 3 4 5  
(A) 4 1 5 3 2 (B) 3 1 4 2 5  
(C) 5 3 4 1 2 (D) 2 4 1 3 5
6. Two trains running in the same direction at 40 km/hr and 22 km/hr completely pass one another in 1 minute. If the length of the 1<sup>st</sup> train is 125 m, then what will be the length of 2<sup>nd</sup> train?  
(A) 175 m (B) 180 m  
(C) 179 m (D) 185 m
7. In a certain code language, 'Mink Young Pe' means 'Fruits are ripe'; 'Pe Lao may Mink' means 'Oranges are not ripe' and 'May Pe Nue Mink' means 'Mangoes are not ripe'. Which word in that language means 'Mangoes'?  
(A) May (B) Lao  
(C) Nue (D) Mink
8. A and B are two stations 390 km apart. A train starts from A at 10 a.m. and travels towards B at 65 kmph. Another train starts from B at 11 a.m. and travels towards A at 35 kmph. At what time do they meet?  
(A) 2:25 pm (B) 2:15 pm  
(C) 2:45 pm (D) 3:05 pm
9. If in a certain language, 'oka peru' means 'fine cloth'; 'meta lisa' means 'clear water' and 'dona lisa peru' means 'fine clear weather', which word in that language means 'weather'?  
(A) peru (B) oka  
(C) meta (D) dona
10. A thief is spotted by a policeman from a distance of 100 metres. When the policeman starts the chase, the thief also starts running. If the speed of the thief be 8 km/hr and that of the policeman 10 km/hr, how far the thief will have run before he is overtaken?  
(A) 290 m (B) 350 m  
(C) 550 m (D) 400 m

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11. If in a certain language 'MIRACLE' is coded as 'NKUEHRL', then how 'GAMBLE' codes in that same language?  
(A) JDOCMF (B) CLEMNK  
(C) HCPFQK (D) AELGMN
12. If in a certain code language, 'BROWSER' is written as 'RESWORB', then how 'TEACHER' coded in that same language?  
(A) REHCEAT (B) REHCAET  
(C) REHCTEA (D) AHRCTEA
13. If in a certain code language, 'FRIEND' is written as 'ETKDPF', then how 'REVEAL' be coded in that language?  
(A) LAEVER (B) VERQLM  
(C) QXGCDN (D) QGXDCN
14. In a certain code, 'BELIEF' is written as 'AFKKDH'. How would 'SELDOM' be written in that code?  
(A) RDKCHL (B) RFKENM  
(C) RFKFNO (D) TFKENP
15. In a certain code 'INSTITUTION' is written as 'NOITUTITSNI'. How would 'PERFECTIONS' be written in that code?  
(A) SNOICTEREP (B) SNOITCEFERP  
(C) SNOITCFRPE (D) SNOITCFREP
16. This question is based on the following alphabet series:  
A B C D E F G H I J K L M N O P Q R S T U V W X Y Z  
If the letters of the given alphabet interchange positions, so that A takes the place of Z and Z takes the place of A; B takes the place of Y and Y takes the place of B and so on, what will be the thirteenth letter from the right?  
(A) M (B) N  
(C) O (D) L
17. If every alternate letter starting from B of the given alphabet is written in small letters, rest all are written in capital letters, how will the month of 'September' be written?  
(A) SEpteMber (B) SEptembER  
(C) SEptEMber (D) sePTemBer
18. How many A's are there in the following series which are immediately followed by B as well as immediately preceded by Z?  
A M B Z A N A A B Z A B A Z B A P Z A B A Z A B  
(A) Nil (B) One  
(C) Two (D) Three
19. Arrange the following words according to the dictionary.  
1. Sound 2. Socks 3. Shock 4. Sharp 5. Snooker  
(A) 5 4 3 1 2 (B) 4 3 5 2 1  
(C) 3 4 5 1 2 (D) 4 3 2 5 1
20. How many B's are there in the following alphabet series each of which is immediately followed by D but not immediately preceded by A?  
A B C D B D E F B D A D B D C A B Z A B D B D N  
(A) Six (B) Four  
(C) Three (D) Five

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21. Karan facing towards south moved straight 2 km and from there turned to his right  $90^\circ$  and travelled 2 km. Then he took a  $45^\circ$  turn to his left and travelled 1 km. Where would he be now with respect to the starting point?  
(A) South region (B) South – east region  
(C) North – west region (D) South – west region
22. Ankit travelled westwards 5 kms, turned left and travelled 3 km, turned right and travelled 9 km. He then turned North and traveled 3 km. How far he is from the starting point?  
(A) 5 kms (B) 3 kms  
(C) 6 kms (D) 14 kms
23. A tourist drives 10 km, towards West and turns to left and takes a drive of another 4 km. He then drives towards East another 4 km and then turns to his right and drives 5 km. Afterwards he turns to his left and travels 6 km. In which direction is he from the starting point?  
(A) North (B) East  
(C) West (D) South
24. A man drives his car 50 km towards eastward direction. He turned right & went for 30 km, then he turned towards west and drive for 10 km. How far is he from the starting point?  
(A) 50km (B) 60km  
(C) 100km (D) 20km
25. A man starts walking from a point and walks 12 kms towards North. He, turns  $90^\circ$  left and walks a distance and stopped. If the distance between initial point and final positions is 13 kms, how much distance he travelled after turning from the North?  
(A) 1 km (B) 5 km  
(C) 7 km (D) 2 km
26. Lalit walks 8 km East, turns South – West and walks another 8 km. He again takes a turn towards North – West and walks another 8 km. In which direction from his starting point, is he standing now?  
(A) North – East (B) South – East  
(C) West (D) East
27. A and B undertake to do a piece of work for Rs 600. A alone can do it in 6 days, while B alone can do it in 8 days. With the help of C, they finish it in 3 days. Find B's share.  
(A) Rs 230 (B) Rs 225  
(C) Rs 235 (D) Rs 220
28. If it is possible to make only one meaningful word with the first, the second, the fifth and the ninth letters of the word MEDIATION, which of following will be the third letter of that word? If no such word can be made, give X as the answer and if more than one such word can be made, give Z as the answer?  
(A) A (B) X  
(C) M (D) Z
29. In a certain code language, if the word 'GROWTH' is coded as IUXPSH, then how will you code the word AVERAGE?  
(A) BWFSBHF (B) FHBSFWB  
(C) FHBRFWB (D) FHASFWB
30. Two men are standing on opposite ends for a bridge of 1200 metres long. If they walk towards each other (starting at the same time) at the rate of 5 m/minute and 10 m/minute respectively, in how much time will they meet each other?  
(A) 60 minutes (B) 80 minutes  
(C) 85 minutes (D) 90 minutes

**Directions (Questions 31 – 35):** Arrange the words in the sequence in which they are found in dictionary.

31. 1. Abiotic 2. Abloom 3. Ability 4. Able 5. Abiosis  
 (A) 53412 (B) 43215  
 (C) 35142 (D) 13542
32. 1. Meal 2. Meaning 3. Meanly 4. Meaningly 5. Mean  
 (A) 25143 (B) 15243  
 (C) 51234 (D) 12543
33. 1. Noble 2. Nod 3. Nobble 4. Nock 5. Nobody  
 (A) 31542 (B) 53142  
 (C) 14235 (D) 15324
34. 1. Lace 2. Laconic 3. Laceless 4. Lactose 5. Lack  
 (A) 14325 (B) 23541  
 (C) 51423 (D) 13524
35. 1. Builder 2. Build 3. Bulb 4. Built 5. Bugler  
 (A) 52143 (B) 51234  
 (C) 35124 (D) 41532
36. A person travels 600 km by train at 80 km/hr, 800 km by ship at 40 km/hr, 500 km by aeroplane at 400 km/hr and 100 km by car at 50 km/hr. The average speed for the entire distance?  
 (A)  $65\frac{5}{123}$  km/hr (B) 60 km/hr  
 (C)  $60\frac{5}{123}$  km/hr (D) 62 km/hr
37. Prateek travelled from a point A to B, a distance of 12 km. He turned right and travelled 8 km and reached point C. From that point took right turn and travelled 6 km, and reached point D. How far is he away from the starting point?  
 (A) 10 km (B) 12 km  
 (C) 13 km (D) 14 km
38. If South-East becomes North, North-East becomes West and so on. What will West become?  
 (A) North – East (B) North – West  
 (C) South – East (D) South – West
39. Two men starting from the same place walk at the rate of 5 kmph and 5.5 kmph respectively. What time will they take to be 8.5 km apart, if they walk in the same direction?  
 (A) 4 hrs 15 min (B) 8 hrs 30 min  
 (C) 16 hrs (D) 17 hrs
40. Bombay Express left Delhi for Bombay at 14:30 hrs, travelling at a speed of 60 kmph and Rajdhani Express left Delhi for Bombay on the same day at 16:30 hrs, travelling at a speed of 80 kmph. How far away from Delhi will the two trains meet?  
 (A) 120km (B) 360 km  
 (C) 480 km (D) 500 km
41. In a certain code 'MOUSE' is written as 'PRUQC'. How is 'SHIFT' written in that same code?  
 (A) VKIRD (B) VKIDR  
 (C) VJIDR (D) VIKRD

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42. If 'ZEBRA' is written as '2652181', then how can 'COBRA' be written?  
 (A) 302181 (B) 3152181  
 (C) 31822151 (D) 1182153

**Directions (Questions 43 – 45):** In each of the questions below, a group of numerals is given followed by four groups of symbol / letter combinations labelled (A), (B), (C) and (D). Numerals are to be coded as per the codes and conditions given below. You have to find out which of the combinations (A), (B), (C) and (D) is correct and indicate your answer accordingly.

Numerals	3	5	7	4	2	6	8	1	0	9
Letters/ Symbol code	*	B	E	A	@	F	K	%	R	M

Following conditions apply:

- (i) In the first digit as well as the last digit is odd, both are to be coded as 'X'.  
 (ii) If the first digit as well as the last digit is even, both are to be codes as '\$'.  
 (iii) If the last digit is 0, it is to be coded as '#'.  
 43. 546839  
 (A) XAFK\*M (B) BAFK\*M  
 (C) XAFK\*X (D) BAFK\*K  
 44. 713540  
 (A) E%\*BA# (B) X%\*BA#  
 (C) X%\*BAR (D) E%\*BAR  
 45. 765082  
 (A) XFBRK@ (B) EFB#K@  
 (C) EFBR#K (D) EFBRK@  
 46. 42 women can do a piece of work in 18 days. How many women would be required do the same work in 21 days?  
 (A) 36 (B) 24  
 (C) 30 (D) 44  
 47. Worker A takes 8 hours to do a job. Worker B takes 10 hours to do the same job. How long should it take both A and B, working together to do the same job?  
 (A)  $3\frac{5}{9}$  hrs (B)  $7\frac{4}{5}$  hrs  
 (C)  $4\frac{4}{9}$  hrs (D)  $6\frac{7}{5}$  hrs  
 48. A and B together can complete a piece of work in 4 days. If A alone can complete the same work in 12 days, in how many days can B alone complete that work?  
 (A) 8 days (B) 6 days  
 (C) 7 days (D) 5 days  
 49. A is twice as good a workman as B and together they finish a piece of work in 18 days. In how many days will A alone finish the work?  
 (A) 27 days (B) 29 days  
 (C) 31 days (D) 33 days

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50. A can do a certain job in 12 days. B is 60% more efficient than A. How many days does B alone take to do the same job?  
(A)  $5\frac{1}{2}$  days (B)  $7\frac{1}{2}$  days  
(C)  $6\frac{1}{2}$  days (D)  $4\frac{1}{2}$  days
51. How many such pairs of letters are there in the word ENTHUSIASTIC each of which has as many letters between them in the word as there are between them in the English alphabet?  
(A) 2 (B) 3  
(C) 4 (D) More than 4
52. How many such pairs of letters are there in the word CORPORATE each of which has as many letters in same sequence between them in the word as in the English alphabet?  
(A) None (B) 1  
(C) 2 (D) 3
53. If it is possible to make a meaningful word from the second, the third, the fourth, the fifth and the eighth letters of the word MANGROVES, the first letter of the word is your answer, if more than one such word can be formed, your answer is X and if no such word can be formed, your answer is Z.  
(A) A (B) R  
(C) Z (D) X
54. Given below is a word, followed by four other words, one of which can be formed by using the letters of the given word. Find that word.  
TEACHER  
(A) RATE (B) TEEN  
(C) RENT (D) TOUCH
55. Given below a word, followed by four other words, one of which cannot be formed by using the letters of the given word. Find that particular word.  
POTENTIAL  
(A) TENT (B) LITTLE  
(C) POTENT (D) TITLE
56. In a certain code language, '123' means 'Green is Red', '24' means 'Red colour', and '326' means 'Green and Red', then what is the code for 'Colour is Green'?  
(A) 146 (B) 632  
(C) 134 (D) 462
57. If in a certain language, 'MADRAS' is codes as 'NBESBT', then how would 'BOMBAY' be coded in that same language?  
(A) CPNCBX (B) CPNCBZ  
(C) CPOCBZ (D) CQOCBZ
58. Rahul put his timepiece on the table in such a way that at 6 P.M. hour hand points to North. In which direction the minute hand will point at 9.15 P.M?  
(A) South – East (B) South  
(C) North (D) West
59. Vikas walked 10 metres towards North, took a left turn and walked 15 metres, and again took a left turn and walked 10 metres and stopped walking. Towards which direction was he facing when he stopped walking?  
(A) South (B) South – West  
(C) South – East (D) Cannot be determined



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60. One evening before sunset Rekha and Hema were talking to each other face to face. If Hema's shadow was exactly to the right of Hema, which direction was Rekha facing?  
(A) North (B) South  
(C) East (D) Data is inadequate

**Directions (Questions 61 – 62):** Study the following information carefully to answer these questions.

A vehicle starts from point P and runs 10 km towards North. It takes a right turn and runs 15 km. It now runs 6 km after taking a left turn. It finally takes a left turn, runs 15 km and stops at point Q.

61. How far is point Q with respect to point P?  
(A) 16 km (B) 25 km  
(C) 4 km (D) 0 km
62. Towards which direction was the vehicle moving before it stopped at point Q?  
(A) North (B) East  
(C) South (D) West
63. Patel starts from his house and travels 8km toward north. Then he turns right, travels 2km, then turns right again and travels 3km and then travels 3km towards east. Finally, he turns left and travels 7km. How far is he from the starting point, in kilometre?  
(A) 12 (B) 13  
(C) 5 (D) 0
64. Ram walks 10 metres towards east, then turns towards north and walked 15 metres and then after turning to the west he walks 10 metres and he turns towards south walks 15 metres. How far is he from starting point?  
(A) 0 metres (B) 2 metres  
(C) 4 metres (D) 5 metres
65. In a certain code language, if the value of 'INVADER' = 42 AND 'SECURE' = 30, then what is the value of 'SITUATION' ?  
(A) 81 (B) 90  
(C) 63 (D) 72
66. Two trains start at the same time from Hyderabad and Delhi and proceed towards each other at 80 km/hr and 95 km/hr respectively. When the trains meet, it is found that one has travelled 180 km more than the other. Find the distance between Delhi and Hyderabad.  
(A) 210 km (B) 2100 km  
(C) 2010 km (D) 2000 km
67. Two taps A and B can fill a tank in 12 min and 15 min respectively. If both are opened and A is closed after 3 min, then how long will it take for B to fill the rest of the tank?  
(A) 7 min 45 sec (B) 7 min 15 sec  
(C) 8 min 5 sec (D) 8 min 15 sec
68. Aditya moves to his North – West side for 2 km. From there he turned 90° clockwise and moved 2 km. From there he turned 90° clockwise and travelled 2 km then he would be in which direction from the original position?  
(A) South East region (B) North East region  
(C) South West region (D) Western region



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69. How many minutes does Aditya take to cover a distance of 400 m, if he runs at a speed of 20 km/hr?
- (A)  $1\frac{1}{5}$  min (B)  $2\frac{1}{5}$  min  
(C)  $3\frac{2}{3}$  min (D)  $4\frac{1}{2}$  min
70. A cyclist covers a distance of 750 m in 2 min 30 sec. What is the speed in km/hr of the cyclist?
- (A) 15 km/hr (B) 17 km/hr  
(C) 18 km/hr (D) 20 km/hr
71. Madan travels 14km towards east from his house. He turns left and travels 19km. Again, he turns to his left and travels 14km further. Finally, he walks 9km towards north and then stops. At what vertical distance in km is he from his house?
- (A) 19 (B) 9  
(C) 24 (D) 28
72. Mr. Shekhar travels 5km towards west, turns left and travels 3km and he travels another 5km towards south. He then turns right and travels 1km to reach a church. How far is the church from his starting position, in kilometre?
- (A) 8 (B) 10  
(C) 12 (D) 14
73. Laxman travels 7km towards south and then 5km towards his left. He further travels 5km towards south. How far is he from the starting point?
- (A) 13km (B) 9km  
(C)  $\sqrt{146}$ km (D)  $\sqrt{119}$ km
74. A person walks 4 km towards west, then turns to his right to travel 9km. He turns towards east and travels 12km. Finally, he travels 3km towards south. How far is he from the initial position in km?
- (A) 15 (B) 23  
(C) 18 (D) 10
75. Starting from her house, Nisha travelled 8m towards west, then turned right and travelled 15m. She then travelled 20m towards east, followed by 20m to south to reach a hostel. How far is her house from the hostel and in which direction?
- (A) 12 m, North west (B) 11 m, North east  
(C) 13 m, North west (D) 12 m, North east
76. Surya travels 3m towards east and then turns right and travels 4m. What is the distance between the initial and the final positions of Surya?
- (A) 8m (B) 5m  
(C) 6m (D) 7m

**Directions (Question 77):** In the following question, from the given alternatives select the word which cannot be formed using the letters of the given word.

77. CONSTITUTIONAL
- (A) CONSULT (B) TUITION  
(C) TALENT (D) LOCATION
78. If the word LEADER is coded as 20 – 13 – 9 – 12 – 13 – 26, how would you write LIGHT?
- (A) 20 – 16 – 15 – 17 – 22 (B) 20 – 16 – 17 – 15 – 27  
(C) 20 – 15 – 16 – 18 – 23 (D) 20 – 17 – 15 – 16 – 28

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79. If the first and second letters in the word 'COMMUNICATIONS' were interchanged, also the third and the fourth letters, the 5<sup>th</sup> and 6<sup>th</sup> letters and so on, which letter would be the tenth letter counting from your right?  
 (A) N (B) U  
 (C) A (D) T
80. Find which one word can not be made from the letters of the given word.  
**CORRESPONDING:**  
 (A) DROPER (B) SUPERIOR  
 (C) GRINDER (D) DISCERN

**Directions (Questions 81 – 85):** Words in capital letters column I are written in small letters in a code language in column II. Decode the language and find out the correct alternative for the given word / letter in each question.

Column – I	Column – II
FISH	zmkj
TEA	fir
GAIN	kpgf
DOG	peh
ROSE	cmre
NUT	igq
TRAM	cvif

81. Code for U is:  
 (A) i (B) g  
 (C) q (D) h
82. Code for M is:  
 (A) v (B) c  
 (C) i (D) m
83. Code for I is:  
 (A) m (B) p  
 (C) f (D) k
84. Code for letters in the word TRAIN is:  
 (A) fgeh (B) fkgic  
 (C) ipvcj (D) fvgmc
85. Code for letters in the word EARN is:  
 (A) ferk (B) gcim  
 (C) gkrp (D) fgrc
86. A man can row upstream at 7 kmph and downstream at 10 kmph. Find the rate of current.  
 (A) 1.5 km/hr (B) 2.5 km/hr  
 (C) 2.10 km/hr (D) 3.6 km/hr
87. Ajay started walking from his houses in East direction to Bus stop which is 3 km away. Then he set off in the bus straight towards his right to the school 4 km away. What is the crow flight (slant) distance from his house to the school?  
 (A) 1 km (B) 5 km  
 (C) 7 km (D) 12 km

**Directions (Questions 88 – 89):** Study the information given below carefully and answer the questions that follow.

Anshu started from 'A' and walked 10 km Eastwards to reach 'B', then turned to North and walked 3 km to reach 'C' and then turned West and walked 12 km to reach 'D'. He then again turned South and walked 3 km to reach 'E'.

88. How far is Anshu from his starting point?  
 (A) 2 km (B) 3 km  
 (C) 1 km (D) 2.5 km
89. In which direction is Point 'E' from point 'A'?  
 (A) East (B) West  
 (C) North (D) South
90. A man can row upstream at 8 kmph and downstream at 13 kmph. The speed of the stream is:  
 (A) 2.5 km/hr (B) 4.2 km/hr  
 (C) 5 km/hr (D) 10.5 km/hr
91. A cistern has two taps which fill it in 12 minutes and 15 minutes respectively. There is also a waste pipe in the cistern. When all the three are opened. The empty cistern is full in 20 minutes. How long will the waste pipe take to empty the full cistern?  
 (A) 10 min (B) 20 min  
 (C) 15 min (D) 25 min
92. An electric pump can fill a tank in 3 hours. Because of a leak in the tank, it took  $3\frac{1}{2}$  hours to fill the tank. If the tank is full, how much time will the leak take to empty it?  
 (A) 19 hrs (B) 23 hrs  
 (C) 21 hrs (D) 20 hrs
93. Y is in the East of X which is in the North of Z. If P is in the South of Z, then in which direction of Y, is P?  
 (A) North (B) South  
 (C) South – East (D) None of these
94. A can finish a work in 18 days and B can do the same work in half the time taken by A. Then working together what part of the same work they can finish in a day?  
 (A)  $\frac{1}{6}$  (B)  $\frac{2}{5}$   
 (C)  $\frac{1}{9}$  (D)  $\frac{2}{7}$
95. 2 men and 3 boys can do a piece of work in 10 days while 3 men and 2 boys can do the same work in 8 days. In how many days can 2 men and 1 boys do the work?  
 (A) 8 days (B) 7 days  
 (C)  $12\frac{1}{2}$  days (D) 2 days
96. If English alphabet is written in backward order, then find the 7<sup>th</sup> letter to the left of 11<sup>th</sup> letter from left.  
 (A) W (B) H  
 (C) I (D) D

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97. If blue is called black, black is called green, green is called white, white is called red, red is called yellow, and yellow is called gray, then what is the colour of milk?  
(A) white (B) blue  
(C) red (D) yellow
98. If tree means mountain, mountain means water, water means jungle, jungle means bus, bus means truck and truck means house, then where do the fish live?  
(A) water (B) jungle  
(C) mountain (D) bus

**Directions (Questions 99 – 100):** Study the following arrangement carefully and answer the questions.

C E B A C D B C D A C E B E D C A B A D A C E D U B A U B D B U

99. How much such A's are there in the given arrangement each of which is immediately preceded by a B and also immediately followed by a consonant?  
(A) One (B) None  
(C) More and three (D) Two
100. How many D's are there in the given arrangement each of which is immediately preceded by a consonant and also immediately followed by a vowel?  
(A) More then four (B) Four  
(C) Two (D) One

HINTS & SOLUTIONS

1. D  
 Sol. W A T E R  
 4 2 1 3 5  
 When the given words are arranged, we get the word WATER from the combination 42135.

2. A  
 Sol. H A P P Y  
 4 5 2 3 1  
 When the given words are arranged using the combination 45231, we get word HAPPY.

3. B  
 Sol. N U M B E R  
 4 1 6 3 5 2  
 Words when arranged, using the combination 416352, we get the word NUMBER.

4. A  
 Sol. H O U S E  
 3 2 4 5 1  
 When the given words are arranged, we get the word HOUSE from the combination 32451.

5. D  
 Sol. T A B L E  
 2 4 1 3 5  
 Meaningful word made by using the combination 24135 is TABLE.

6. A  
 Sol. Relative speed of trains =  $40 - 22 = 18$  km/hr  
 $\therefore 18$  km/hr = 5 m/sec  
 Let the length of second train = L m.  
 Time taken to cross each other =  $\frac{L + 125}{5}$   
 $\therefore \frac{L + 125}{5} = 60 \Rightarrow L = 175$  m.

7. C  
 7. Mink Young Pe  $\rightarrow$  Fruits are ripe  
 Pe Lao May Mink  $\rightarrow$  Oranges are not ripe  
 May Pe Nue Mink  $\rightarrow$  Mangoes are not ripe  
 From statements coded (i) and (ii). Pe mink means are ripe and from statement (ii) and (iii) may means not, so pe mink may means are not ripe and finally from Statement (iii) neu will be mangoes.

8. B  
 Sol. Suppose they meet x hours after 10 a.m. Then, (Distance moved by first in x hrs) + [Distance moved by second in (x - 1) hrs] = 390.  
 $\therefore 65x + 35(x - 1) = 390 \Rightarrow 100x = 425 \Rightarrow x = 4\frac{1}{4}$   
 So, they meet 4 hrs. 15 min after 10 a.m. i.e. at 2:15 pm

9. D  
 Sol. Find cloth – Oka peru ... (i)  
 Fine clear weather – dona lisa peru ... (ii)  
 $\Rightarrow$  fine = peru

**MVPP-Mock Test-1-MAT**

By statement (i) and (ii), clear = lisa

From statement (ii) and (iii) 'Lisa' means 'clear' and from statement (i) and (iii), 'Peru' means 'fine', so 'weather' will be 'dona' with the help of statement (iii).

10. D

Sol. Relative speed of the policeman =  $(10 - 8)$  km/hr = 2 km/hr

Time taken by policeman to cover 100 m =  $\left(\frac{100}{1000} \times \frac{1}{2}\right)$  hr =  $\frac{1}{20}$  hr

In  $\frac{1}{20}$  hrs, the thief covers a distance of  $\left(8 \times \frac{1}{20}\right)$  km =  $\frac{2}{5}$  km = 400 m

11. C

Sol. As,

M  $\xrightarrow{+1}$  N

Similarly G  $\xrightarrow{+1}$  H

I  $\xrightarrow{+2}$  K

A  $\xrightarrow{+2}$  C

R  $\xrightarrow{+3}$  U

M  $\xrightarrow{+3}$  P

A  $\xrightarrow{+4}$  E

B  $\xrightarrow{+4}$  F

C  $\xrightarrow{+5}$  H

L  $\xrightarrow{+5}$  Q

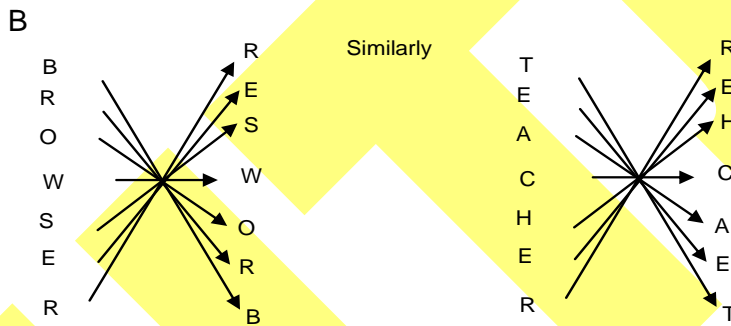
L  $\xrightarrow{+6}$  R

E  $\xrightarrow{+6}$  K

E  $\xrightarrow{+7}$  L

12. B

Sol.



13. D

Sol.

F $\xrightarrow{-1}$ E	Similarly	R $\xrightarrow{-1}$ Q
R $\xrightarrow{+2}$ T		E $\xrightarrow{+2}$ G
I $\xrightarrow{+2}$ K		V $\xrightarrow{+2}$ X
E $\xrightarrow{-1}$ D		E $\xrightarrow{-1}$ D
N $\xrightarrow{+2}$ P		A $\xrightarrow{+2}$ C
D $\xrightarrow{+2}$ F		L $\xrightarrow{+2}$ N

14. C

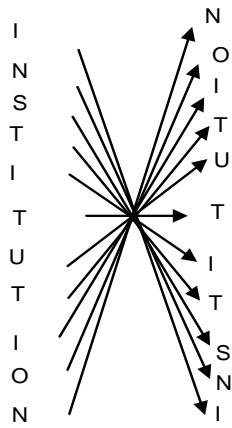
Sol.

B $\xrightarrow{-1}$ A	Similarly	S $\xrightarrow{-1}$ R
E $\xrightarrow{+1}$ F		E $\xrightarrow{+1}$ F
L $\xrightarrow{-1}$ K		L $\xrightarrow{-1}$ K
I $\xrightarrow{+2}$ K		D $\xrightarrow{+2}$ F
E $\xrightarrow{-1}$ D		O $\xrightarrow{-1}$ N
F $\xrightarrow{+2}$ H		M $\xrightarrow{+2}$ O

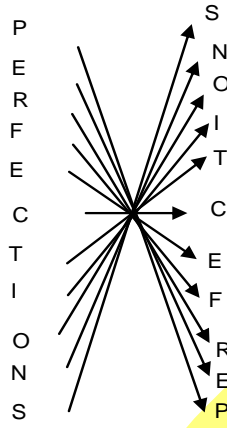
MVPP-Mock Test-1-MAT

15. D

Sol.



Similarly



16. A

Sol.

The new arrangement will be Z Y X W .....N...M.....D C B A  
Hence thirteenth element from right is M.

17. C

Sol.

All even rank alphabets will be written in small, while all odd rank alphabets will be written in capital.

18. D

Sol.

A M B Z A N A A B Z A B A Z B A P Z A B A Z A B  
By observation.

19. B

Sol.

Sharp, Shock, Snooker, Socks, Sound.

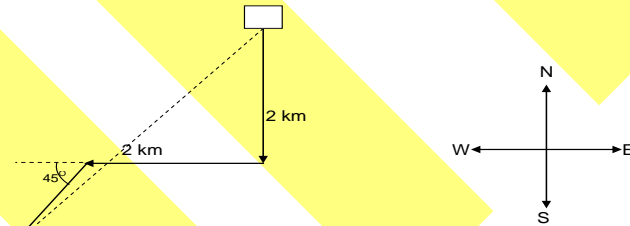
20. B

Sol.

A B C D B D E F B D A D B D C A B Z A B D B D N

21. D

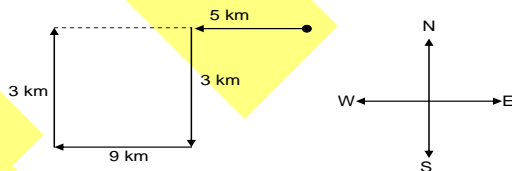
Sol.



Karan is in the south – west region with respect to his starting point.

22. D

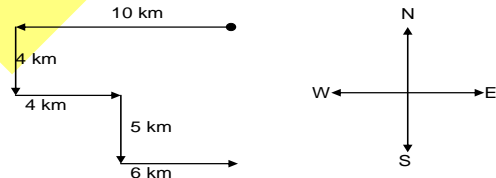
Sol.



Ankit is (5 + 9) kms away from his starting point.

23. D

Sol.

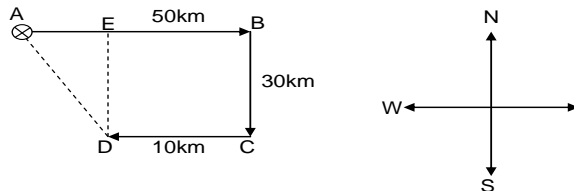




**MVPP-Mock Test-1-MAT**

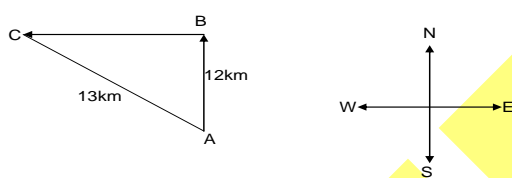
He is in the south direction, from the starting point.

24. A  
Sol.



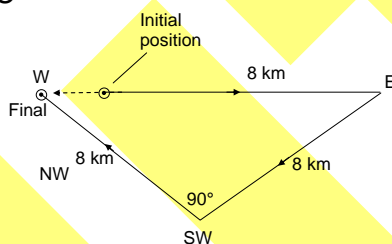
$$\begin{aligned} (AD)^2 &= (AE)^2 + (DE)^2 \\ &= (50 - 10)^2 + (30)^2 \\ &= (40)^2 + (30)^2 \\ &= 2500 \\ AD &= \sqrt{2500} = 50 \text{ km} \end{aligned}$$

25. B  
Sol.



$$\begin{aligned} BC &= \sqrt{(13)^2 - (12)^2} \\ &= \sqrt{169 - 144} \\ &= \sqrt{25} \\ &= 5 \text{ km} \end{aligned}$$

26. C  
26.



He is now in West from its starting point.

27. B

Sol. C's 1 day's work =  $\frac{1}{3} - \left(\frac{1}{6} + \frac{1}{8}\right) = \frac{1}{24}$

Ratio of work done in 1 day for A : B : C =  $\frac{1}{6} : \frac{1}{8} : \frac{1}{24}$   
= 4 : 3 : 1

B's share = Rs  $\left(\frac{600 \times 3}{8}\right)$  = Rs. 225

28. D

Sol. The first, second, fifth and ninth letters of the word  
M E D I A T I O N are M, E, A and N respectively.  
1 2 3 4 5 6 7 8 9

Words formed using these letters are as follows:

- (i) MANE
- (ii) MEAN
- (iii) NAME
- (iv) AMEN

**MVPP-Mock Test-1-MAT**

29. B

29. Word: G R O W T H

Logic 1: The word is reversed

H T W O R G

Logic 2: +1 +1 +1 +1 +1 +1

Code: I U X P S H

Similarly, AVERAGE is coded as FHBSFWB.

30. B

Sol. Required time

$$= \frac{1200\text{m}}{(5+10)\text{m/min}} = 80 \text{ minutes}$$

31. C

Sol. Dictionary order is ability, abiosis, abiotic, able, abloom

32. B

Sol. Dictionary order is meal, mean, meaning, meaningly, meanly

33. A

Sol. Dictionary order is nobble, noble, nobody, nock, nod

34. D

Sol. Dictionary order is lace, laceless, lack, laconic, lactose

35. A

Sol. Dictionary order is bugler, build, builder, built, bulb

36. A

Sol. Total time

$$= \frac{600}{80} + \frac{800}{40} + \frac{500}{400} + \frac{100}{50}$$

$$= \frac{246}{8} \text{ hours}$$

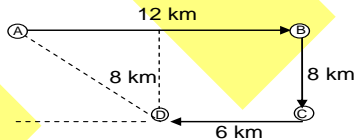
Average speed

$$= \frac{600 + 800 + 500 + 100}{\frac{246}{8}}$$

$$= \frac{2000 \times 8}{246} = 65 \frac{5}{123} \text{ km/hr}$$

37. A

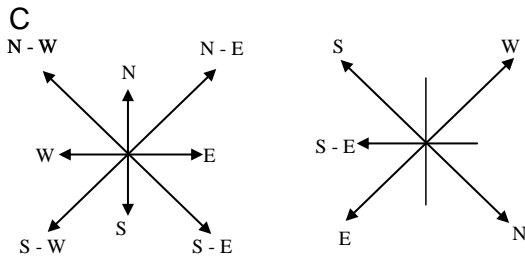
37.



$$\text{Required distance} = \sqrt{8^2 + 6^2} = \sqrt{100} = 10 \text{ km}$$

**MVPP-Mock Test-1-MAT**

38. Sol.



It is clear from the diagrams that new name of West will become South – East.

39. Sol.

D  
To be 0.5 km apart, they take 1 hour  
To be 8.5 km apart, they take  $\left(\frac{1}{0.5} \times 8.5\right)$  hrs = 17 hrs

40. Sol.

C  
Suppose they meet x hours after 14.30 hrs  
Then,  $60x = 80(x - 2)$  or  $x = 8$   
 $\therefore$  Required distance =  $(60 \times 8)$  km = 480 km

41. Sol.

B  
M  $\xrightarrow{+3}$  P      Similarly      S  $\xrightarrow{+3}$  V  
O  $\xrightarrow{+3}$  R                              H  $\xrightarrow{+3}$  K  
U  $\xrightarrow{\quad}$  U                                I  $\xrightarrow{\quad}$  I  
S  $\xrightarrow{-2}$  Q                                F  $\xrightarrow{-2}$  D  
E  $\xrightarrow{-2}$  C                                T  $\xrightarrow{-2}$  R

42. Sol.

B  
Z  $\xrightarrow{\quad}$  26      Similarly      C  $\xrightarrow{\quad}$  3  
E  $\xrightarrow{\quad}$  5                                O  $\xrightarrow{\quad}$  15  
B  $\xrightarrow{\quad}$  2                                B  $\xrightarrow{\quad}$  2  
R  $\xrightarrow{\quad}$  18                               R  $\xrightarrow{\quad}$  18  
A  $\xrightarrow{\quad}$  1                                A  $\xrightarrow{\quad}$  1

43. Sol.

C  
Clearly, the given number group, both the first and last digits are odd number. So, each of them is to be coded as 'X'. The remaining numerals are to be codes with their respective codes from the given table. So, the required code is XAFK\*X.

44. Sol.

A  
The last digit in the given number group is 0, which shall thus be coded as #. Choosing the individual codes for the remaining digits from the given table, we obtain the code for 713540 as E%\*BA#.

45. Sol.

D  
Clearly, each digit of the given number group is to be coded by its individual letter / symbol code.  
So, the required code is EFBRK@.

**MVPP-Mock Test-1-MAT**

46. A

Sol. 

Days	Women
↑	↓
18	42
21	x

$$\therefore 21 : 18 :: 42 : x$$

$$\Rightarrow x = \frac{42 \times 18}{21} = 36$$

47. C

Sol. A's 1 hour's work =  $\frac{1}{8}$ , B's 1 hour's work =  $\frac{1}{10}$

$$(A + B)\text{'s 1 hour's work} = \left(\frac{1}{8} + \frac{1}{10}\right) = \frac{9}{40}$$

$\therefore$  Both A and B will finish work in  $\frac{40}{9} = 4\frac{4}{9}$  hrs

48. B

Sol. (A + B)'s 1 day's work =  $\frac{1}{4}$ , A's 1 day's work =  $\frac{1}{12}$

$$\text{B's 1 day's work} = \left(\frac{1}{4} - \frac{1}{12}\right) = \frac{1}{6}$$

Hence, B alone can complete the work in 6 days.

49. A

Sol. (A's 1 days work) : (B's 1 days work) = 2:1

$$(A + B)\text{'s 1d days work} = \frac{1}{18}$$

Divide  $\frac{1}{18}$  in the ratio 2:1

$$\therefore \text{A's 1 days work} = \left(\frac{1}{18} \times \frac{2}{3}\right) = \frac{1}{27}$$

Hence, A alone can finish the work in 27 days

50. B

Sol. Ratio of time taken by A and B = 160 : 100 = 8 : 5

Suppose B alone takes x days to do the job.

Then, 8 : 5 :: 12 : x  $\Rightarrow 8x = 5 \times 12 \Rightarrow x = 7\frac{1}{2}$  days

51. B

Sol. From the given word :

5 14 20 8 21 19 9 1 19 20 9 3

E N T H U S I A S T I C

We find that:

E (N T) H N (T H U S) I and S ( ) T

**MVPP-Mock Test-1-MAT**

Are the pairs having two letters, four letters and no letter respectively between them as in the alphabetical order. Therefore, there are three such pairs Viz. EH, NI and ST

52. D

Sol. From the given word

3 15 18 16 15 18 1 20 5  
 C O R P O R A T E

We find that

P (O) R P (O R A) T and R (A) T

Are the pairs having one letter, three letters and one letter respectively between them in the same sequence as in the alphabetical order. Therefore, there are three such pairs Viz. PR, PT and RT.

53. D

Sol. The second, third, fourth, fifth and eight letters of the word

M A N G R O V E S  
 1 2 3 4 5 6 7 8 9

Are A, N, G, R and E respectively

Words formed using these letters are as follows:

ANGER, RANGE

54. A

Sol. RATE is the only word which can be formed by using the letters of given word TEACHER.

55. B

Sol. LITTLE, is the only word which cannot be formed by using the letters of given word POTENTIAL. The reason for not being formed is an extra L.

56. C

Sol.

Word	Red	Colour	And	Green	is
Code	2	4	6	3	1

∴ From the box, 'Colour is green' will be '134'

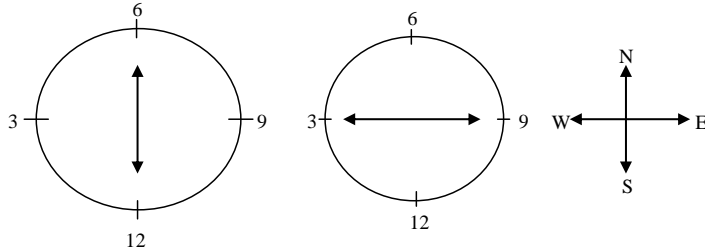
57. B

Sol.

As,  
 M  $\xrightarrow{+1}$  N      Similarly B  $\xrightarrow{+1}$  C  
 A  $\xrightarrow{+1}$  B      O  $\xrightarrow{+1}$  P  
 D  $\xrightarrow{+1}$  E      M  $\xrightarrow{+1}$  N  
 R  $\xrightarrow{+1}$  S      B  $\xrightarrow{+1}$  C  
 A  $\xrightarrow{+1}$  B      A  $\xrightarrow{+1}$  B  
 S  $\xrightarrow{+1}$  T      Y  $\xrightarrow{+1}$  Z

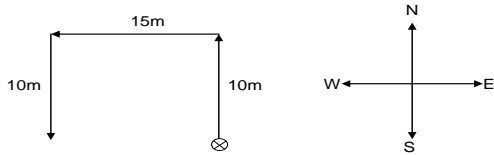
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58. D  
Sol.



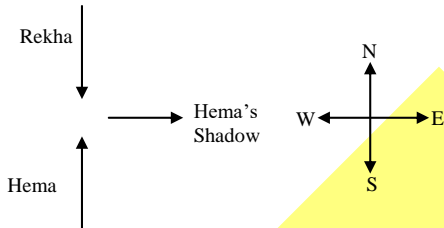
At 9.15 pm, the minute hand will point towards west.

59. A  
Sol.



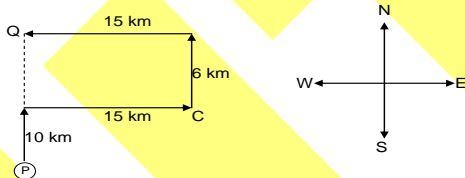
Vikas was facing towards South when he stopped walking.

60. B  
Sol.



In the evening sun sets in West. Hence then any shadow fall in the East. Since Hema's shadow was to the right of Hema. Hence Rekha was facing towards South.

61. A  
Sol.

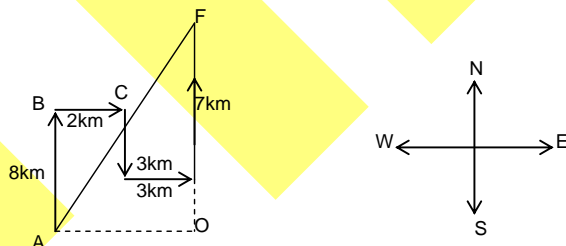


Distance between points P and Q = 10 + 6 = 16 km

62. D  
Sol.

Vehicle is in the West direction when it finally stopped.

63. B  
Sol.



He starts at A and reaches F. Now, we have to find AF.

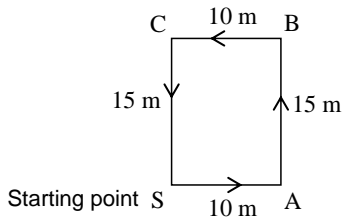
In  $\triangle AOF$

$$AF = \sqrt{AO^2 + OF^2} = 13 \text{ km}$$

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64. A

Sol.



Since Ram arrive again at S starting point. So He is at 0 m from starting point i.e. he is on starting point.

65. D

Sol. Number of letters in the word INVADER = 7 and  $7 \times 6 = 42$ , number of letters in the word SECURE = 6 and  $6 \times 5 = 30$   
Similarly, SITUATION  
 $\Rightarrow 9 \times 8 = 72$

66. B

Sol. If one travels more than the other, then it is with the higher speed.

Let, they travelled for 't' hours.

Since the faster train travelled 180km extra distance

i.e.,  $180 = (95 - 80)t \Rightarrow t = 12$  hr

Since they are travelling towards each other,

Total distance = Distance travelled by train 1 + Distance travelled by train 2

=  $80 \times 12 + 95 \times 12 = 12(95 + 80) = 2100$  km.

67. D

Sol. In 1 min (A + B) fill  $\frac{1}{12} + \frac{1}{15} = \frac{9}{60}$  part of the tank

In 3 min, they fill  $\frac{9}{60} \times 3 = \frac{9}{20}$  part of the tank.

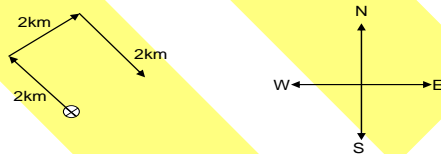
$\therefore$  Rest of the tank =  $1 - \frac{9}{20} = \frac{11}{20}$

So, B will fill the rest of the tank in

$\frac{11}{20} \times \frac{15}{1} = \frac{33}{4} = 8$  min 15 sec.

68. B

68.



He is in the North – East direction from his starting point.

69. A

Sol. Aditya's speed =  $20$  km / hr =  $\left(20 \times \frac{5}{18}\right)$  m / sec =  $\frac{50}{9}$  m/sec

$\therefore$  Time taken to cover 400 m =  $\left(400 \times \frac{9}{50}\right)$  sec =  $72$  sec =  $1\frac{12}{60}$  min =  $1\frac{1}{5}$  min

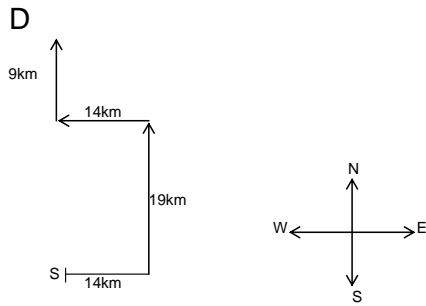
70. C

Sol. Speed =  $\left(\frac{750}{150}\right)$  m / sec =  $5$  m / sec =  $\left(5 \times \frac{18}{5}\right)$  km/hr =  $18$  km/hr



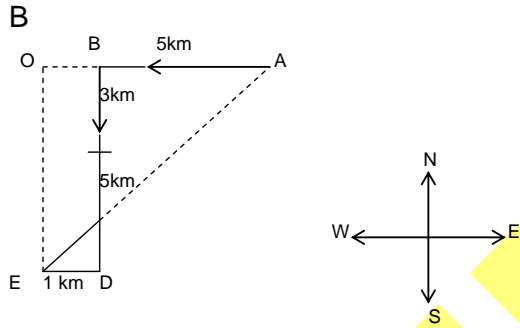
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71.  
Sol.



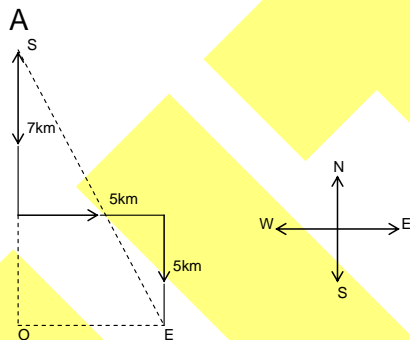
From the diagram the vertical distance travelled.  
=  $(9 + 19) = 28\text{km}$

72.  
Sol.



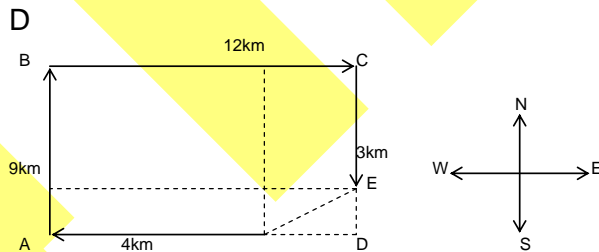
We have to find AE  
In  $\triangle AOE$   
 $AE = \sqrt{EO^2 + OA^2} = 10\text{ km}$

73.  
Sol.



He starts at S and reached E. Now we have to find SE.  
 $\triangle SOE$   
 $SE = \sqrt{SO^2 + OE^2} = 13\text{ km}$

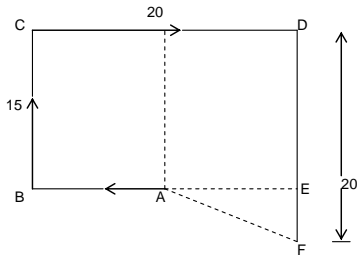
74.  
Sol.



Required distance = 10 km

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75. C  
Sol.



Let A and F be the initial and final positions.

$$\text{Now, } AF = \sqrt{AE^2 + EF^2}$$

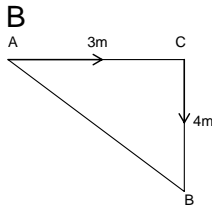
$$AE = CD - BA = 20 - 8 = 12 \text{ m}$$

$$EF = DF - DE = DF - CB = 20 - 15 = 5 \text{ m}$$

$$\therefore AF = \sqrt{144 + 25} = \sqrt{169} = 13 \text{ m}$$

Her house is towards north west from her hostel.

76. B  
Sol.



Let A and B be the initial and the final positions of Surya.

$$AB = \sqrt{AC^2 + BC^2}$$

$$= \sqrt{3^2 + 4^2} = 5 \text{ m}$$

77. C  
Sol.

'TALENT' cannot be formed because 'E' is not there in 'CONSTITUTIONAL'.

78. D  
Sol.

$$\begin{array}{cccccc} L & E & A & D & E & R \\ 12 & 5 & 1 & 4 & 5 & 18 \\ +8 & +8 & +8 & +8 & +8 & +8 \\ \hline = 20 & 13 & 9 & 12 & 13 & 26 \end{array}$$

$$\begin{array}{ccccc} L & I & G & H & T \\ 12 & 9 & 7 & 8 & 20 \\ +8 & +8 & +8 & +8 & +8 \\ \hline = 20 & 17 & 15 & 16 & 28 \end{array}$$

79. A  
Sol.

O C M M N U C I T A O I S N  
10

80. B  
Sol.

The word CORRESPONDING contains all the letters of the word SUPERIOR except U. So, the word SUPERIOR cannot be formed.

81. C  
Sol.

If we decode the words we get as follows:

- I - k
- M - v
- E - r
- T - i
- N - g
- R - c

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A – f

U – q

Hence option 'C' is answer.

82. A

Sol. Clearly from solution of previous questions. It is option 'A'.

83. D

Sol. Clearly from solution of previous questions. It is option 'D'.

84. B

Sol. T – i

R – c

A – f

I – k

N – g

Hence option 'B' is answer.

85. D

Sol. E – r

A – f

R – c

N – g

Hence option 'D' is answer.

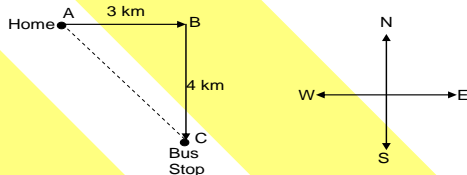
86. A

Sol. Rate in still water =  $\frac{1}{2}(10 + 7) \text{ km/hr} = 8.5 \text{ km/hr}$

Rate of current =  $\frac{1}{2}(10 - 7) \text{ km/hr} = 1.5 \text{ km/hr}$

87. B

Sol.



$$(AC)^2 = (AB)^2 + (BC)^2$$

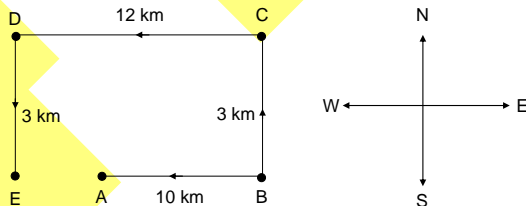
$$AC = \sqrt{(3)^2 + (4)^2}$$

$$= \sqrt{25}$$

$$= 5 \text{ km}$$

88. A

Sol.

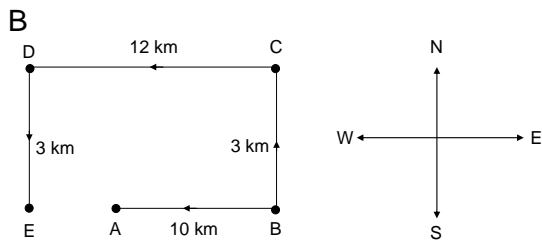


Obviously, Anshu is 2 km West from A, starting point.

MVPP-Mock Test-1-MAT

89.

Sol.



90.

A

Sol. Speed of stream =  $\frac{1}{2}(13 - 8) \text{ kmph} = 2.5 \text{ kmph}$

91.

A

Sol. Work done by the waste pipe in 1 min

$$= \frac{1}{20} - \left( \frac{1}{12} + \frac{1}{15} \right) = -\frac{1}{10} \quad \text{[ - ve sign means emptying ]}$$

∴ Waste pipe will empty the full cistern in 10 minutes.

92.

C

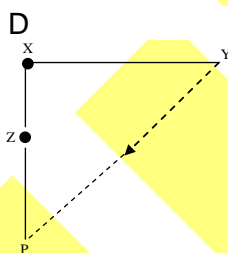
Sol. Work done by the leak in 1 hour

$$= \left[ \frac{1}{3} - \frac{1}{\left(\frac{7}{2}\right)} \right] = \left( \frac{1}{3} - \frac{2}{7} \right) = \frac{1}{21}$$

∴ The leak will empty the tank in 21 hours

93.

Sol.



P is in South – West of Y.

94.

A

Sol.

A's 1 day's work =  $\frac{1}{18}$   
 B's 1 day's work =  $\frac{1}{9}$   
 ∴ (A + B)'s 1 day's work  
 $= \frac{1}{18} + \frac{1}{9} = \frac{1+2}{18} = \frac{3}{18} = \frac{1}{6}$

95.

C

Sol.

According to the question,  
 20 men + 30 boys = 24 men + 16 boys  
 ∴ 4 men = 14 boys  
 ∴ 2 men = 7 boys  
 ∴ 2 men + 1 boy = 8 boys  
 2 men + 3 boys = 10 boys  
 ∴  $M_1 D_1 = M_2 D_2$   
 $\Rightarrow 10 \times 10 = 8 \times D_2$   
 $\Rightarrow D_2 = \frac{10 \times 10}{8} = \frac{25}{2}$

MVPP-Mock Test-1-MAT

$$= 12\frac{1}{2}$$

96. A

Sol. 11<sup>th</sup> letter from left in the reverse order  
= (27 – 11)th letter from left in forward order  
= 16<sup>th</sup> letter from left in forward order  
= P

Now, 7<sup>th</sup> letter to the left of 16<sup>th</sup> letter in reverse order  
= 7<sup>th</sup> letter to the right of 16<sup>th</sup> letter in forward order  
= 7<sup>th</sup> letter after 16<sup>th</sup> letter in forward order  
= (16 + 7)th letter in forward order  
= 23<sup>rd</sup> letter in forward order = W

97. C

Sol. The colour of milk → white  
But according to the question  
White → Red  
Therefore, the colour of milk → red

98. C

Sol. Fish live in water.  
But according to the question  
Mountain → Water  
Therefore, fish live in Mountain

99. D

Sol. C E **B A C** D B C D A C E B E D C A **B A** D A C E D U B A U B D B U  
Thus, there is only two such A's.

100. D

Sol. C E B A C D B **C D A** C E B E D C A B A D A C E D U B A U B D B U  
There is only one such D.