

SAFE HANDS, AKOLA

STD. 9TH (Test for Competitive-04) ANSWER KEY Dt. 06-11-2023

PHYSICS	
[Q. NO.]	[ANS]
1	B
2	B
3	A
4	B
5	A
6	D
7	C
8	C
9	A
10	A
11	D
12	B
13	C
14	B
15	D
16	D
17	C
18	C
19	B
20	C

CHEMISTRY	
[Q. NO.]	[ANS]
21	D
22	D
23	A
24	B
25	B
26	A
27	C
28	C
29	D
30	A
31	D
32	A
33	C
34	A
35	C
36	A
37	D
38	D
39	A
40	D

BIOLOGY	
[Q. NO.]	[ANS]
41	D
42	A
43	B
44	D
45	B
46	C
47	D
48	A
49	B
50	B
51	B
52	D
53	B
54	C
55	A
56	B
57	C
58	C
59	D
60	C

MATHS	
[Q. NO.]	[ANS]
61	B
62	A
63	C
64	B
65	C
66	B
67	C
68	D
69	A
70	C
71	B
72	D
73	C
74	A
75	C
76	B
77	B
78	D
79	D
80	B

G.K./Mental Ability	
[Q. NO.]	[ANS]
81	B
82	A
83	B
84	A
85	B
86	B
87	D
88	D
89	B
90	A
91	C
92	A
93	B
94	D
95	D
96	B
97	A
98	C
99	C
100	C

SECTION V – G.K / Mental Ability

81. Which is the leading country in generation of electricity from solid waste? (HBBVE 2020-21)
 (a) India (b) America
 (c) Japan (d) Russia
82. Fire alarm is activated in which of the following situations? (HBBVE 2012)
 (a) Smoke, CO, flame
 (b) Heat, Sound, flame
 (c) Heat, Vibration, CO₂
 (d) Water flow, Vibration, Smoke
83. Person having the rare 'Bombay blood group' does not have _____ in his blood. (HBBVE 2013)
 (a) Rh factor (b) H antigen
 (c) A and B antibody (d) O antigen

Ans : (B)**Solution:**

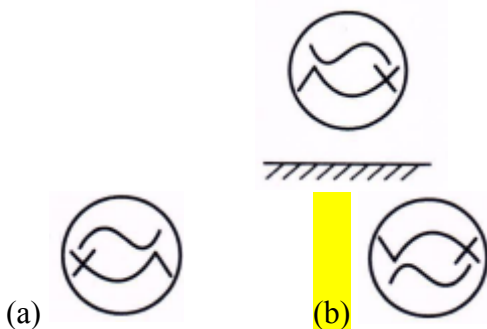
The Bombay blood group is a rare blood group, phenotypes of this group lacking **H antigen on the red cell membrane** and have anti-H in the serum.

85. Who is the father of 'Genetic Engineering'? (HBBVE 2020-21)
 (a) Cohen and boyer
 (b) Hunt and Davids
 (c) Sinclair and Roberts
 (d) Jaysson and Simons
87. Arrange the given words in a logical sequence and select the correct option. (SoF NSO 2022-23)
 1. Patient 2. Recover 3. Doctor 4. Treatment 5. Diagnosis
 (a) 1, 3, 4, 5, 2 (b) 1, 3, 5, 4, 2
 (c) 1, 3, 2, 4, 5 (d) 1, 3, 2, 5, 4

Ans : (B)**Solution:** The correct order is :

Patient, Doctor, Diagnosis, Treatment, Recover i.e.
 1, 3, 5, 4, 2

86. Select the correct image of the figure, as it will appear reflected in water. (UIMO 2022)



(c)



(d)

87. If 'P' stands for 'multiplication', 'Q' stands for 'division', 'R' stands for 'addition' and 'S' stands for 'subtraction', then find the value of **152Q19P10R7S31**. (SoF iMO 2021-22)
 (a) 73 (b) 45 (c) 39 (d) 56

Ans: (D)**Solution:**

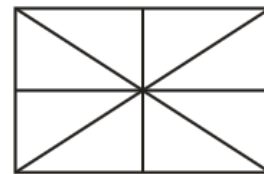
The given expression becomes

$$152 \div 19 \times 10 + 7 - 31$$

$$= 8 \times 10 + 7 - 31$$

$$= 80 + 7 - 31 = 56$$

88. Count the number of triangles formed in the given figure. (SoF NSO 2022-23)

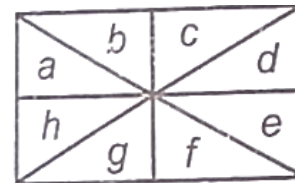


(a) 12

(b) 13

(c) 14

(d) More than 14

Ans : (D)**Solution:**

Triangles formed are : a, b, c, d, e, f, g, h, bc, de, fg, ah, abhc, bcde, defg and ahgf 16 in number.

89. If the first and second digits of each of the following numbers are interchanged and then numbers are arranged in ascending order, then which of the following is the middle digit of the middle number in the new arrangement formed? (SOF IMO 2028)

518 645 251 273 723

(a) 2

(b) 6

(c) 1

(d) 3

Ans: (B)**Solution:**

(i) Given numbers are:

518 645 251 273 723

(ii) Interchange the first and second digits of each of the given numbers, new numbers will be

158 465 521 723 273

(iii) After arranging it in ascending order

158 273 465 521 723

Middle digit of the middle number is 6, hence ans (b) is correct.

90. In a certain code language, '125' means 'water is life', '146' means 'give me water', '785' means 'life must healthy' and '8541' means 'water give healthy life'. What is the code for 'me' in that language? (SoF IMO 2019-20)

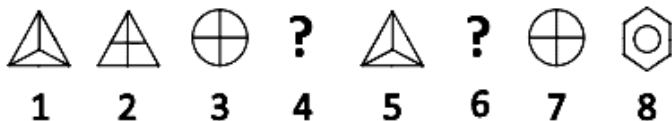
(a) 6 (b) 2 (c) 4 (d) 1

Ans: (A)



Solution:



- (i) '125' means 'water is life'
 (ii) '146' means 'give me water'
 (iii) '785' means 'life must healthy'
 (iv) '8541' means 'water give healthy life'
 From (ii) and (iv) '14' means 'give water'
 So, from (ii) code for me is 6

91. The figures in the question are arranged as per fixed pattern. Choose the missing figures. (UIMO-2021-22)



(a) 4 = , 6 = 



(b) 4 = , 6 = 

(c) 4 = , 6 = 

(d) 4 = , 6 = 

Ans: (C)

Solution:

4 = , 6 = 



92. The time by my watch is quarter past twelve. If the hour hand points to the east, which is the direction opposite to the minute hand? (MTS 2003)

(a) North (b) West
 (c) South (d) Southwest

Ans: (A)

Solution:

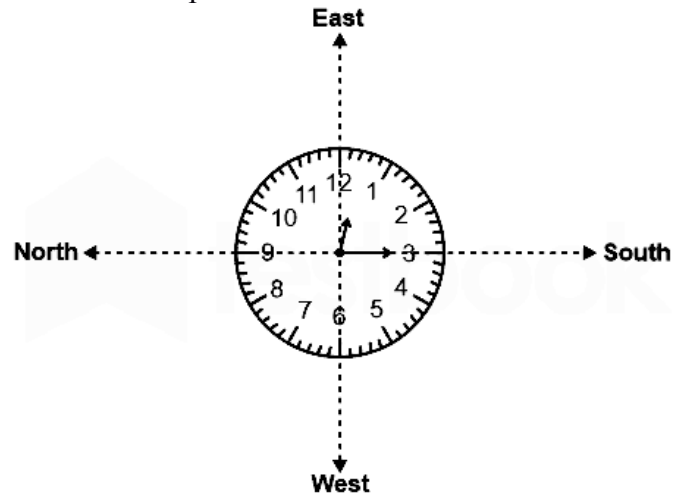
Quarter past twelve is a short way of saying it's a **quarter of an hour (15 minutes) after 12:00.**

Shown in the image below-



Now direction as per question –

Hour hand points to the east



Thus we can see opposite direction to minute hand is north

93. Find the next term in the series: (Silver Zone iOS 2017)

WFB, TGD, QHG, ?

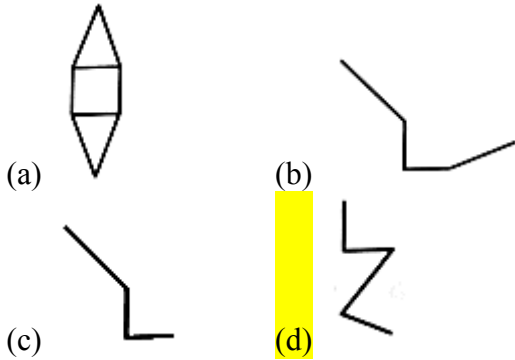
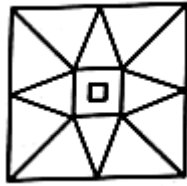
(a) NIJ (b) NIK (c) NJK (d) OIK

Ans: (B)

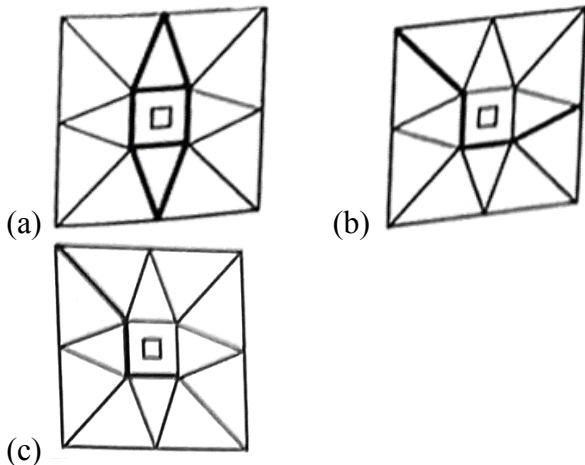
Solution:

1st letter : W $\xrightarrow{-3}$ T $\xrightarrow{-3}$ Q $\xrightarrow{-3}$ (N)
 2nd letter : F $\xrightarrow{+1}$ G $\xrightarrow{+1}$ H $\xrightarrow{+1}$ (I)
 3rd letter : B $\xrightarrow{+2}$ D $\xrightarrow{+3}$ G $\xrightarrow{+4}$ (K)

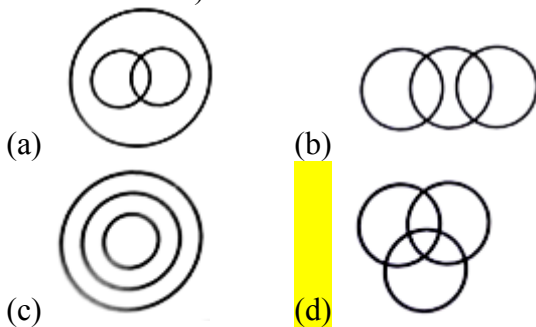
94. Which of the following figures is **not** exactly embedded in the given figure as one of its parts? (SoF IMO 2021-22)



Ans: (d)
Solution:

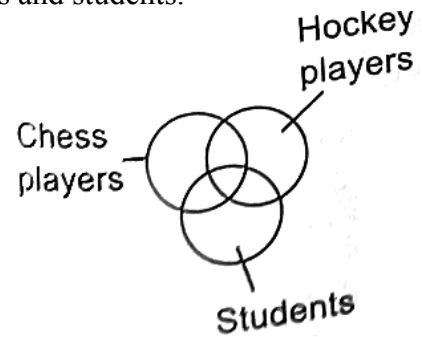


95. Which of the following Venn diagrams best represents the relationship amongst, "Chess players, Hockey players and Students"? (SoF NSO 2022-23)

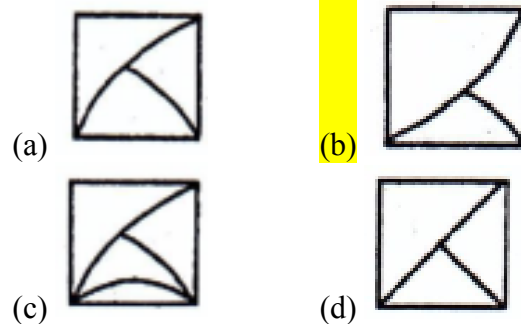
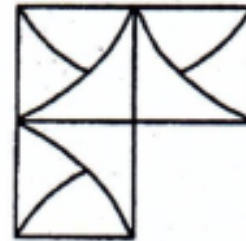


Ans: (D)
Solution:

The correct option is D as it represents accurate relationship amongst the chess players, hockey players and students.



96. In the following questions, a problem figure is given. Which of the alternatives will complete the problem figure? (MTS 2001)



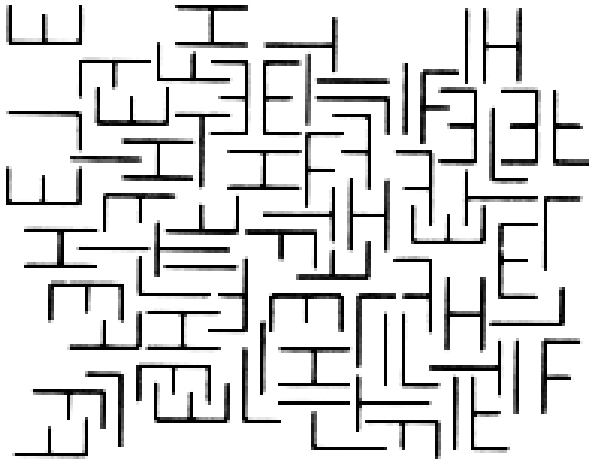
97. The son of Priyanka is the father of Aditya and maternal grandfather of Shristi. Kavya is the daughter of Aditya and sister of Karuna. How is Priyanka related to Karuna?

- (a) Grandfather's mother
(b) Grandmother
(c) Grandmother's mother
(d) Data inadequate

Ans: (A)
Solution:

Aditya is the father of Kavya and Karuna. Also, Aditya is the son of Priyanka's son. So, son of Priyanka is grandfather of Karuna. Hence, Priyanka is Karuna's grandfather's mother.

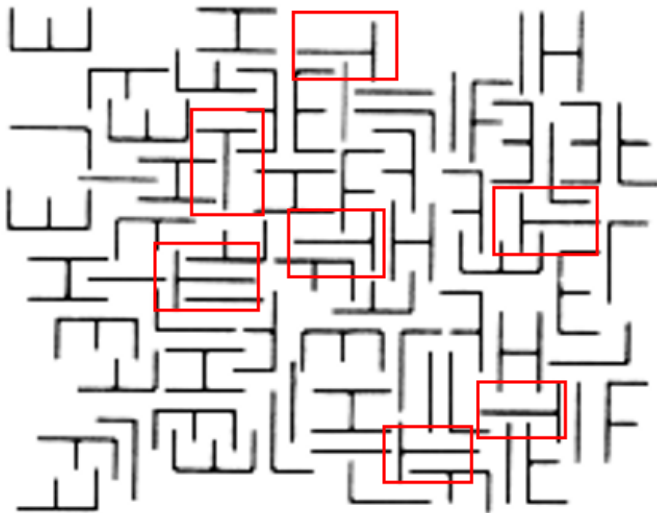
98. Find the total number of occurrences of capital letter T in the figure. (UIMO)



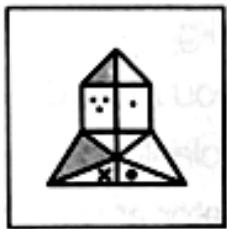
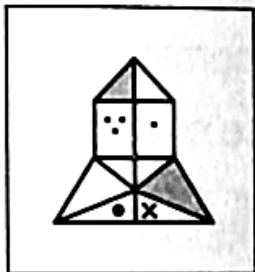
(a) 5 (b) 6 (c) 7 (d) 8

Ans: (c)

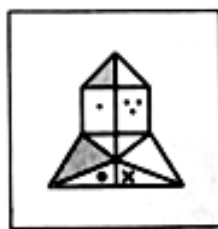
Solution:



99. Select the correct mirror image of the given figure if mirror is placed vertically to the right. (SoF iMO)

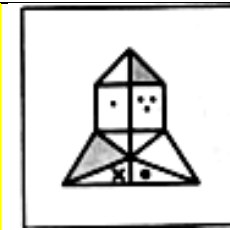


(a)



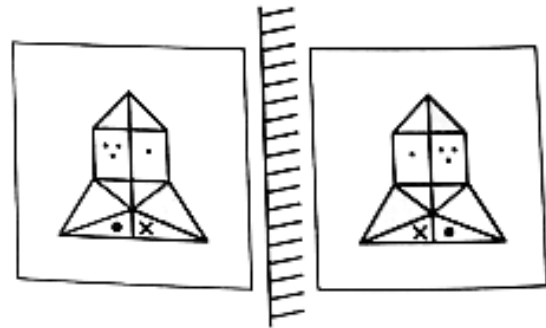
(b)

(c)

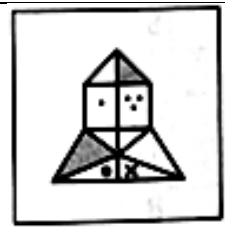


Ans: (C)

Solution:



(d)



100. Three persons A, B and C are standing in a queue. There are five persons between A and B and eight persons between B and C. If there are three persons ahead of C and 21 behind A, then the maximum number of persons in the queue can be... (SilverZone iOM 2020)

(A) 27 (B) 28 (C) 40 (D) 37

Ans: (C)

Solution:

Three persons A, B, C can be arranged in a queue in six different ways, i.e. ABC, CBA, BAC, CAB, BCA, ACB. But since there are only 3 persons ahead of C, so C should be in front of the queue. Thus, there are only two possible arrangements, i.e. CBA and CAB.

We may consider this as under:

$$\overset{3}{\leftarrow} C \leftrightarrow \overset{8}{B} \leftrightarrow \overset{5}{A} \overset{21}{\rightarrow}$$

Clearly, number of persons in the queue = $(3+1+8+1+5+1+21)= 40$