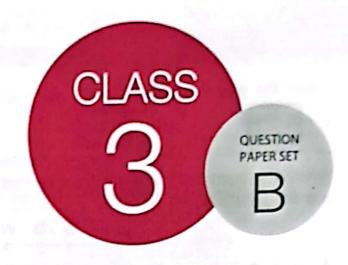


SOF NATIONAL SCIENCE OLYMPIAD 2022-23



DO NOT OPEN THIS BOOKLET UNTIL ASKED TO DO SO

Total Questions: 35 | Time: 1 hr.

Guidelines for the Candidate

- 1. You will get additional ten minutes to fill up information about yourself on the OMR Sheet, before the start of the exam.
- Write your Name, School Code, Class, Roll No. and Mobile Number clearly on the OMR Sheet and do not forget to sign it. We will share your marks / result and other information related to SOF exams on your mobile number.
- 3. The Question Paper comprises three sections:

Logical Reasoning (5 Questions), Science (25 Questions) and Achievers Section (5 Questions)

Each question in Achievers Section carries 2 marks, whereas all other questions carry one mark each.

- 4. All questions are compulsory. There is no negative marking. Use of calculator is not permitted.
- There is only ONE correct answer. Choose only ONE option for an answer.
- 6. To mark your choice of answers by darkening the circles on the OMR Sheet, use HB Pencil or Blue / Black ball point pen only. E.g.
 - Q. 16: Raj goes to school on a bicycle. Which of these safety rules he should follow?
 - A. He should give signals before taking turns.

B. He should keep to the right of the road.

C. He should cross the road by using zebra crossing.

D. All of these

As the correct answer is option A, you must darken the circle corresponding to option A on the OMR Sheet.

16. ● ® © ®

- Rough work should be done in the blank space provided in the booklet.
- 8. Return the OMR Sheet to the invigilator at the end of the exam.
- 9. Please fill in your personal details in the space provided on this page before attempting the paper.





Name:	
SOF Olympiad Roll No.:	Contact No.:



LOGICAL REASONING

- Select the odd one out.
 - A. 5 + 4
- B. 6+3
- C. 8 + 1
- D. 4 + 7
- Select the combination of numbers so that the letters are arranged accordingly to form a meaningful English word.

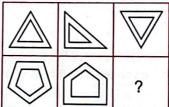
O D W L R 1 2 3 4 5

- A. 1, 5, 3, 4, 2
- B. 3, 1, 5, 4, 2
- C. 5, 1, 2, 4, 3
- D. 3, 1, 4, 5, 2
- 3. How many possible combinations of 1 ring and 1 hair band each can be formed from the given rings and hair bands?
 - A. 6
 - B. 9
 - C. 8
 - D. 10



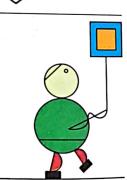


4. Which of the following figures will replace the question mark (?) in the given figure matrix?



- A. 📉

- c. 🔘
- D. (
- 5. Which of the following shapes is missing in the given figure?
 - A. Rectangle
 - B. Circle
 - C. Square
 - D. Triangle



SCIENCE

	Α.	Tea	В.	Coffee	C.	Rice	D.	Green gram
7.	Но	w many farm	animals	can you fin	d in the give	n box?		, Pa
		fra un ten	Giraffe, C	ow, Sheep,	Lion, Hen, C	at, Horse, Vu	Iture, Duc	ck
	A.	4	В.	5	C.	3	D.	6
8.	Am	nyra saw X e	entering it	s burrow. H	lere, X can b	oe a		W.
	A.	1	В.		of bord gra 		, D.	
9.	Wh	nich of the fo	llowing o	rgans is NC	T protected	by the rib ca	ge?	an eath recipit is
	A.	Brain			В.	Heart		
3	C.	Lungs			D.	Both B and	С	
10.	At	the top of a	food pyra	amid for a b	palanced diet	, you will find	d t	B Encha <u>n</u>
	A.				В.			
	C.	Fruits and	vegetable	s	D.	Oil and salt	-	D. Puff
11.		e houses wit mostly four				ne given picti	ure A	
	A.	Low rainfall					analole de	
	В.	Heavy snov				unctins pust		
	C.	Long summ				trucelly raised	571 (171)	
1.1	D.	Both A and	B and a	A Moderne	aledi hak i Karatan 1966		A 1	TO STATE OF THE
2.	Chi	ldren can sh	ow their	love and re	spect to the	elders by		
	Α.				d good nigh			
	B.	Apologising	to elders	if they do	any mistake	•		
	C.	Talking poli	tely and r	espectfully	to them			
	D.	All of these						

13.	Uns	scramble the letter rect option regard	s given in th	ne box to get	the name of an	n animal. Now, select the
			A	EWRTMO	RH	
	Δ	It sucks blood.			It carries load	for us.
		It has a long stick	cy tongue.		It swallows so	
14.	Ket	tuvallams are tem	porary house	es that look lik	(e	
	A.		в.	C .		D
15.		ormation in printed through			a large numbe	er of people at the same
		Newspaper		_	Television	D. All of these
16.		lect the major forcering		girls X and Y	in the given pi	icture need to overcome
		X	Y			
	A.	Gravity	Friction			
	B.	Friction	Gravity			
	C.	Friction	Friction			
	D.	Pull	Push)	WL	X Y
17.	Sel	lect the INCORRE	CT match.			
	A.	Valley - Good for	growing cro	ps		
	В.	Plateau - Tablela				
	C.	Island - A piece			er on three sides	s Hajiye da çekeri e
	D.	Hill - Place with				
						Charles a Charles

- 18. A picture of leaf with its parts labelled as W, X, Y and Z is shown. Select the option that correctly identifies the labelled parts.
 - A. W Lamina
 - B. X Margin
 - C. Y Main vein
 - D. Z Stalk

19.	Ste	m of which of	the follow	ving plant	s stores foo	d and is e	dible?	
	Α.		В.		C.	-	D.	
20.	Ref	er to the giver	relations	ship and s	select the or	otion that c	orrectly id	entifies P.
			The second secon	The second secon	Star :: Non-			
	Α.	Torch		andle		Sweater		Sun
21.	Sel in r	ect the option making statues	which or s.	unscram	nbling gives	the name of	of the rock	c commonly used
	Α.	LHACK	B. <i>A</i>	LOC	C.	AMRLEB	D.	OIMDDAN
22.	lde opt	ntify the bird I tion that show	oy looking s the type	at its been a	eak X as sho this bird has	own in the g	given pictu	ire and select the
				χ				
	Α.	*	В.	*	di trat ya s C.		D.	1
23.	Sel	lect the pair w	hich cont	ains food	items made	e by the sa	me cookir	ig method.
	A.	Puris and Sa	mosa		B.	Momos ar	nd Pizza	
	C.	Dhokla and F	Pakoras	Tangleton T	D.	Roti and [Dal	
24.	Sui	mit took a cone volume of air	ntainer of	volume 2 ontainer is	2000 cm³ ar s	d pumped	500 cm ³	of air into it. Now
	Α.	2000 cm ³	В. :	500 cm ³	C.	1500 cm ³	D.	Cannot say
25.	O rigo	sells	fruits and	l vegetab	les.			
	Α.	Plumber			B.	Barber		
	C.	Greengrocer			D.	Mason	,	
				SPACE	FOR ROUGH	NORK		

26. Select the odd one out on the basis of means of transport.









27. Read the given sentence and select the option that correctly fills in the blanks.

X is a means of _____ communication called _____.

- A. Verbal, Bhav
 - B. Non-verbal, Braille

C. Verbal, Braille

D. Non-verbal, Mudra



28. Strike out every alternate letter, starting from the first one and select the option that gives the name of a tube that carries urine to the urinary bladder.

A. RKSIKDLNMEOYP

B. ZUSRQEVTUEERG

C. OSLTMOKMSATCUHR

D. FSGKJIHNO

29. _____ is the constellation that resembles a hunter.

A. Ursa major

C. Orion

D. Cassiopeia

30. Jaya filled some water in a pot and kept it over a stove to boil it, but forgot to turn off the stove. After some time, she saw that the pot was empty. This shows that water underwent the process of _____.

A. Freezing

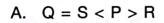
B. Condensation

C. Evaporation

D. Sublimation

ACHIEVERS SECTION

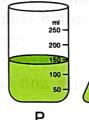
31. Select the option that correctly arranges the containers P, Q, R and S in ascending order on the basis of amount of liquid in them.

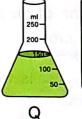


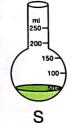
B.
$$R < S = Q < P$$

C.
$$R < S < Q = P$$

D.
$$P > Q = S > R$$





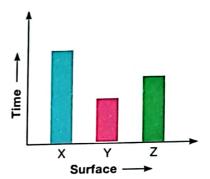


- 32. Refer to the given word grid and select the option that correctly answers (a) and (b).
 - (a) Names of how many seasons are hidden in the word grid?
 - (b) Names of how many hard rocks are hidden in the word grid?

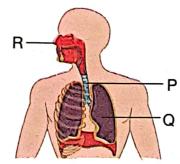
	3. 3 5. 2	(b)
A.	4	2
в.	3	4
C.	2	2
D.	4	4

S	C	Н	A	L	K	S	0	W
A	U	Т	U	М	N	Р	X	Y
C	М	R	L	F	С	R	Z	X
L	T	D	В	Q	K	1	D	S
0	L	0	A	W	1	N	D	Y
U	1	J	T	U	С	G	L	N
D	С	G	R	A	Z	1	T	E
Y	E	R	P	Z	С	G	S	W
C	Н	М	A	R	В	L	E	K

- 33. The time taken by the same ball to stop when rolled with the same force on three different surfaces X, Y and Z is plotted in the given graph. What conclusion can be drawn from it?
 - A. Surface Y is smoothest.
 - B. Surface Z is roughest.
 - C. Surface X has lowest frictional force.
 - D. Surface Z has highest frictional force.

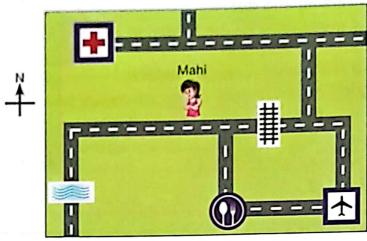


34. Refer to the given picture of human respiratory system and select the correct statement regarding labelled parts P, Q and R.



- A. R contains mucus and hair to filter out dust from the inhaled air.
- B. Blood picks up oxygen from P and supplies it to different parts of the body.
- C. Exchange of oxygen occurs in Q whereas that of carbon dioxide occurs in P.
- D. Both B and C

35. Refer to the given map of a locality and select the correct statement regarding it.



- A. Mahi will first go towards East, then North and then West to reach the hospital.
- B. There is a river to the East of airport.
- C. If Mahi needs to go to the restaurant, she will have to cross the river.
- D. There is only one route for Mahi to reach the airport.

SPACE FOR ROUGH WORK

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