

SOF NATIONAL CYBER OLYMPIAD

SYLLABUS

Section - 1 : Patterns, Analogy and Classification, Coding-Decoding, Mirror Images, Embedded Figures, Alphabet Test, Ranking Test, Grouping of Figures, Figure Matrix, Geometrical Shapes, Days and Dates & Possible Combinations.

Section - 2 : Fundamentals of Computer, General Information about Computers, Storage Devices, Parts of Computer, Uses of Computer, Input and Output Devices, Introduction to Internet, MS-Paint, Introduction to MS-Word (Opening, Closing, Saving and Printing a Word document, Components of MS-Word window, Editing commands like Cut, Copy, Paste, Undo and Redo, Moving in a document using Home and End Keys), Latest Developments in the field of IT.

Section - 3 : Higher Order Thinking Questions - Syllabus as per Section - 2.

Questions are based on Windows 7 and MS-Office 2010.

PATTERN & MARKING SCHEME			
Section	(1) Logical Reasoning	(2) Computers & IT	(3) Achievers Section
No. of Questions	5	25	5
Marks per Ques.	1	1	2

LOGICAL REASONING

1. Which option will complete the Fig. (X)?

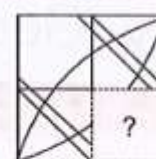
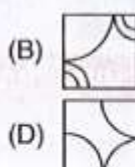
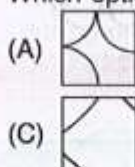


Fig. (X)

2. shows group of 5 trees, and shows group of 5 houses. Which of the following figure shows 10 houses surrounded by 20 trees ?



3. If \oplus means +, \odot means -, \perp means >, \top means <, then which of the following is NOT true?

(A) $2 \oplus 5 \perp 4$ (B) $5 \odot 3 \top 7$ (C) $10 \oplus 5 \perp 5$ (D) $4 \odot 2 \perp 7$

COMPUTERS AND INFORMATION TECHNOLOGY

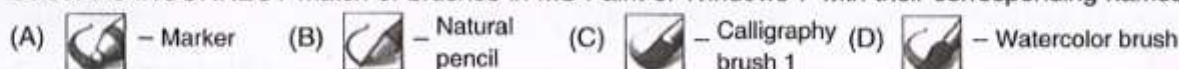
4. Which of the following icons is used to draw perfect circle in MS-Paint of Windows 7?


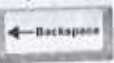

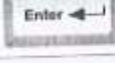
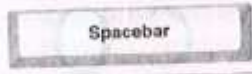



5. Which of the following is an input device?



6. Select the INCORRECT match of brushes in MS-Paint of Windows 7 with their corresponding names.



7.  represents which part of computer?
 (A) Keyboard (B) Mouse (C) CD (D) CPU
8. Which of the following statements about a computer is NOT correct?
 (A) You can watch movies on it. (B) You can solve your sums on it.
 (C) You can play games on it. (D) You can cook food with it.
9. The key that erases characters towards the left is _____.
 (A)  (B)  (C)  (D) 
10. Find the odd term out.
 (A) Keyboard (B) Mouse (C) Monitor (D) Joystick
11.  is also called _____.
 (A) VDU (B) CPU (C) ALU (D) CU
12. MS-Paint is a Windows program that is used for _____.
 (A) Calculations (B) Writing letters
 (C) Drawing purposes (D) Preparing presentations
13. Which of the following is NOT an example of search engine?
 (A) Google (B) facebook (C) bing (D) YAHOO!

ACHIEVERS SECTION

14. Alia wants to create a shortcut for MS-Word 2010, so that she can quickly access it. But she does not know the correct sequence of steps required to follow to create a desktop shortcut. Help her by rearranging the given steps in the CORRECT order.
 (A) 4 → 1 → 2 → 6 → 5 → 7 → 3
 (B) 1 → 2 → 4 → 7 → 3 → 6 → 5
 (C) 4 → 3 → 2 → 7 → 1 → 5 → 6
 (D) 6 → 1 → 5 → 7 → 2 → 4 → 3

1. Select All Programs
 2. Click Microsoft Office Word
 3. Click Desktop (create shortcut) option
 4. Click on Start button
 5. Right click
 6. Go to Microsoft Word 2010
 7. Select 'Send to' from the pop-up menu

15. Identify the following.
 - It is a device that converts textual data into spoken sentences.
 - It is used to read the text information to blind persons.
 - It translates the entered text into spoken words.



SYLLABUS

Section - 1 : Patterns, Analogy and Classification, Coding-Decoding, Mirror Images, Embedded Figures, Alphabet Test, Ranking Test, Grouping of Figures, Figure Matrix, Geometrical Shapes, Days and Dates & Possible Combinations.

Section - 2 : Plants and Animals, Birds, Food, Housing and Clothing, Transport and Communication, Human Body, Earth and Universe, Matter and Materials, Light, Sound and Force, Our Environment.

Section - 3 : Higher Order Thinking Questions - Syllabus as per Section - 2.

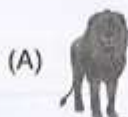
Total Questions : 35

Time : 1 hr.

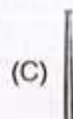
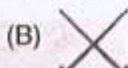
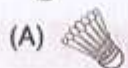
Section	PATTERN & MARKING SCHEME		
	(1) Logical Reasoning	(2) Science	(3) Achievers Section
No. of Questions	5	25	5
Marks per Ques.	1	1	2

LOGICAL REASONING

1. If Anshuman spins the wheel once, the spinner will least likely come on ____.



2. If  : , then  : ?



3. The figure has ____ straight lines and ____ curves.

- (A) 9, 10
(B) 14, 12
(C) 16, 9
(D) 15, 10

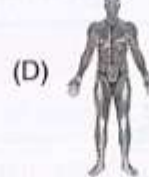
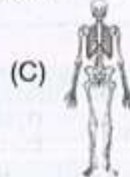
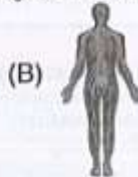
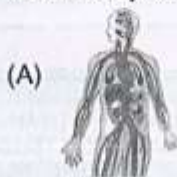


SCIENCE

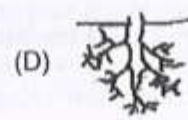
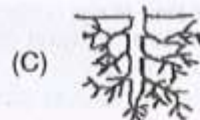
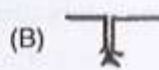
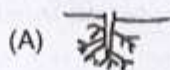
4. What can be the reason that a taxi driver has to be more careful when driving on a rainy day than driving on a hot summer day?
(A) Gravitational force between taxi and road is higher on a hot summer day.
(B) Frictional force between taxi and road is lower on a rainy day.
(C) Gravitational force between taxi and road is lower on a rainy day.
(D) Frictional force between taxi and road is lower on a hot summer day.

5. Water droplets that are too heavy to float make
(A) Fog (B) Clouds (C) Rain (D) Smoke.

6. Which of these organ systems gives shape and support to our body and protects the important organs of the body such as lungs, brain, liver, heart, etc.?



7. The figures below show the roots of some plants. Which of the following will hold the plant most firmly to the soil?

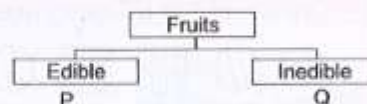


8. Ducks have
(A) Short and broad beaks (B) Broad and flat beaks
(C) Slender beaks (D) Pointed beaks.

9. Look at the classification table shown. 'P' and 'Q' are correctly represented by ____.

- P
(A) Tomato
(B) Mimosa
(C) Pineapple
(D) Apple

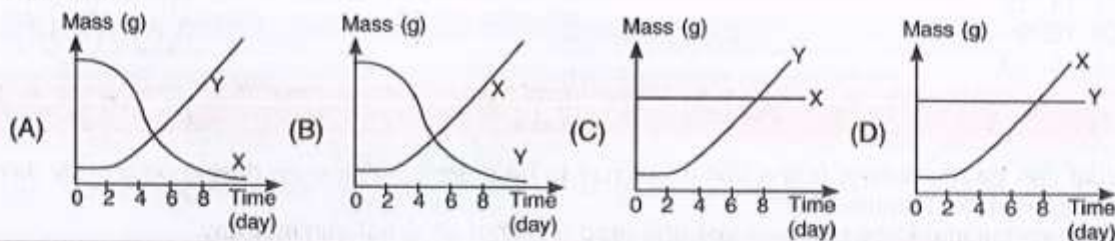
- Q
Chilli
Dragon fruit
Rubber
Coconut



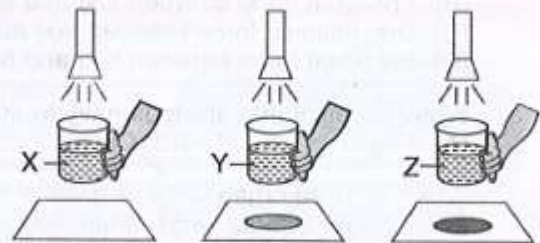
10. Renu's grandmother got seriously ill in afternoon and needs to be taken to hospital immediately. In such situation, which of the following modes should she most preferably use in order to communicate to her father who was in his office?
 (A) E-mail (B) Letter (C) Radio broadcast (D) Phone call
11. The bird that lays its eggs in the nest of a crow is
 (A) Cuckoo (B) Parrot (C) Wood pecker (D) Pigeon.
12. Which of the following will not dissolve in water?
 (A) Salt (B) Sugar (C) Sand (D) Baking soda
13. Soil helps trees because soil
 (A) Makes food for the trees (B) Moves the tree seeds to new places
 (C) Gives nutrients to the trees (D) Turns the roots into new trees.

ACHIEVERS SECTION

14. When a seedling grows, it depends on the seed leaves for nutrition until the first leaves are formed. Which of the following graph correctly identifies the changes in mass of seed leaf (X) and shoot (Y) over time?



15. Observe the given pictures carefully and select the correct conclusion regarding liquids X, Y and Z.
 (A) Liquid X is transparent and liquid Z is translucent.
 (B) Liquid Y is opaque and liquid Z is translucent.
 (C) Liquid X is transparent and liquid Z is opaque.
 (D) Liquid Y is transparent and liquid Z is opaque.



Total Questions : 35

Time : 1 hr.

PATTERN & MARKING SCHEME				
Section	(1) Logical Reasoning	(2) Mathematical Reasoning	(3) Everyday Mathematics	(4) Achievers Section
No. of Questions	10	10	10	5
Marks per Ques.	1	1	1	2

SYLLABUS : Numerals, Number Name and Number Sense (4 digit numbers), Addition, Subtraction, Multiplication, Division, Fractions, Money, Length (conversions), Weight, Capacity, Time, Point, Problems Based on Figures, Odd One Out, Patterns, Series Completion, Coding-Decoding, Mirror Images, Embedded Figures, Straight Lines and Curved Lines, Geometrical Shapes.

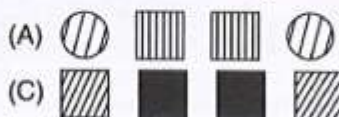
Achievers Section : Higher Order Thinking Questions - from the above given Syllabus.

LOGICAL REASONING

1. Meena made this pattern with balls:



Which of the following uses a rule most different from Meena's pattern?



2. If Pawan has baseball practice every fourth day in the month of March, starting with March 1, what date will be his last day of practice for the month?
- (A) March 28
(B) March 29
(C) March 30
(D) March 31

MARCH						
S	M	T	W	Th	F	S
				1	2	3
4	5	6	7	8	9	10
11	12	13	14	15	16	17
18	19	20	21	22	23	24
25	26	27	28	29	30	31

3. Komal built a birdhouse at summer camp. What shape is the piece of wood that was cut out to make the door of her birdhouse?
- (A) Triangle
(B) Diamond
(C) Circle
(D) Pentagon

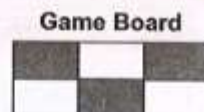


4. How would the given block model look from the top?



MATHEMATICAL REASONING

5. Tina shades in 3 spaces on a game board. What fraction of the game board is shaded?
- (A) $\frac{3}{6}$
(B) $\frac{3}{5}$
(C) $\frac{3}{3}$
(D) $\frac{6}{3}$



6. What is the standard form of $7,000 + 800 + 20 + 5$?
(A) 7,285 (B) 7,825 (C) 7,852 (D) 7,528
7. $8 \times 9 = \underline{\quad} + 9 + 9$. The missing number is _____.
(A) 54 (B) 45 (C) 43 (D) 34
8. Tanya started watching television at 8 : 47 p.m. She decided to go to bed 1 hr 40 mins later. At what time did she go to bed ?
(A) 10 : 27 p.m. (B) 10 : 17 a.m. (C) 9 : 27 p.m. (D) 9 : 27 a.m.
9. The product of a number and 6 is 240. The number is _____.
(A) 40 (B) 80 (C) 144 (D) 1440

EVERYDAY MATHEMATICS

10. Sara and 3 of her friends together made a poster. They drew 8 rows of squares with 6 squares in each row. How many squares did Sara and her friends draw on the poster?
(A) 48 (B) 42 (C) 40 (D) 17
11. Third-grade students went to a theatre in 8 buses. Each bus took 45 students. How many students went to the theatre?
(A) 320 (B) 360 (C) 380 (D) 3240
12. A class collected seven hundred fourteen box tops. Which number represents seven hundred fourteen?
(A) 704 (B) 714 (C) 740 (D) 741
13. If Rizvan sells 479 eggs each day, how many eggs will he sell in a week ?
(A) 486 (B) 2833 (C) 2838 (D) 3353

ACHIEVERS SECTION

14. Look at the given number bond.
Q is 1 more than P.
Then, $P + Q =$ _____.
(A) 1 (B) 5 (C) 6 (D) 9



15. Find the value of ★.

$$\blacksquare + \blacksquare = 12; \bullet + \blacksquare = 17; \bullet - \text{☾} = 9; \star = \text{☾} \times \bullet - \blacksquare = ?$$

(A) 11

(B) 16

(C) 20

(D) 14



SOF INTERNATIONAL
ENGLISH OLYMPIAD

Total Questions : 35

Time : 1 hr.

PATTERN & MARKING SCHEME				
Section	(1) Word and Structure Knowledge	(2) Reading	(3) Spoken and Written Expression	(4) Achievers Section
No. of Questions		30		5
Marks per Ques.	1	1	1	2

SYLLABUS

Section - 1 : Word Power : Homophones, Collocations, Spellings, Words related to animals, Household things, Clothes, Basic emotions, Food, Animals and Pets, etc. Synonyms and Antonyms, Gender, Number, Proverbs, One Word, Nouns, Pronouns, Verbs, Adverbs, Adjectives, Articles, Prepositions, Simple Tenses, Conjunctions and Punctuation, Basic Questions etc.

Section - 2 : Search for and retrieve information from various text types like stories, Anecdotes, etc. Understand information through pictures, Time-table format, etc., Acquire broad understanding of and look for specific information in short texts like messages, Invitations, etc.

Section - 3 : Ability to understand situation-based variations in functions like apology, greeting, introduction, request, etc.

Section - 4 : Higher Order Thinking Questions - Syllabus as per Sections 1, 2 and 3.

WORD AND STRUCTURE KNOWLEDGE

1. Find the correct word for the picture.

- (A) Writer
(B) Dancer
(C) Singer



2. Find the odd pair.

- (A) Cat : Kitten (B) Cow : Calf (C) Pig : Pigeon

Direction : Complete the sentence with the correct spelling of the word.

3. The bear went over the _____.

- (A) Mountan (B) Mountain (C) Mountane

Direction (Q. No. 4 and 5) : Fill in the blanks.

4. There are thirty tables and thirty _____ in my classroom.

- (A) Chair (B) Chairs (C) A chair

5. My teacher's name is Sheela. I like _____.

- (A) Her (B) Him (C) She

6. Find the incorrect sentence.

- (A) I go for a walk. (B) My father's name are Prasad.
(C) My name is Kishan.

READING

Direction (Q. No. 7 to 10) : Read the letter and answer the following questions.

Letter to Rudolf, Santa's Reindeer

Dear Rudolf,

My name is Meethu. I am a baby parrot! I live with my friend in the great city of Mumbai in the state of Maharashtra. Of course, that's in India, but I'll bet you knew that! Rudolf, some things that I might like for Christmas this year, two bags full of my favourite seed-mix, lots of green chillies and another baby parrot to play with. And please don't forget to put in a good word for my friend with Santa! He is very nice. He doesn't keep me in a cage.

Lots of Love

Meethu

7. Meethu lives in _____.
 (A) Hyderabad (B) Mumbai (C) A cage
8. Meethu asks for _____.
 (A) Two things (B) Three things (C) Five things
9. Meethu asks Rudolf some things for _____.
 (A) Christmas (B) Holi (C) Good Friday
10. Why does Meethu like his owner?
 (A) He doesn't give him food. (B) He puts Meethu in a cage.
 (C) He allows Meethu to fly.
11. Find a sentence matching the picture.
 (A) The girl is posting a letter.
 A crow is looking at her.
 (B) The girl is looking at the crow.
 The crow is posting a letter.
 (C) The girl is buying vegetables.
 There is a post box.



SPOKEN AND WRITTEN EXPRESSION

Direction (Q. No. 12 and 13) : Find one sentence to complete the dialogue/paragraph.

12. Geetha : Hello! I am Geetha. What is your name?
 Lina : _____
 (A) Hello! I am Lina. (B) Hello! I am going home. (C) Let us go home.
13. Ram didn't want to swim in the sea.
 He sat on the beach and watched Rahul and Mahesh.
 (A) Mummy gave Ram an ice cream but he didn't want it.
 (B) They played in the water. (C) But, Paul didn't want to.

ACHIEVERS SECTION

Direction : Choose the correct word.

14. The teacher is sitting _____ his desk.
 (A) In (B) At (C) On

Direction : Choose the best reply.

15. "Let's go out for dinner, _____?"
 (A) Shall we (B) Can we (C) Must we

SPACE FOR ROUGH WORK

ANSWERS

NCO - 1. (C) 2. (D) 3. (D) 4. (B) 5. (B) 6. (C) 7. (B) 8. (D) 9. (A) 10. (C) 11. (A) 12. (C) 13. (B) 14. (A) 15. (A)
 NSO - 1. (D) 2. (A) 3. (C) 4. (B) 5. (C) 6. (C) 7. (C) 8. (B) 9. (C) 10. (D) 11. (A) 12. (C) 13. (C) 14. (A) 15. (C)
 IMO - 1. (B) 2. (B) 3. (C) 4. (A) 5. (A) 6. (B) 7. (A) 8. (A) 9. (A) 10. (A) 11. (B) 12. (B) 13. (D) 14. (D) 15. (B)
 IEO - 1. (B) 2. (C) 3. (B) 4. (B) 5. (A) 6. (B) 7. (B) 8. (B) 9. (A) 10. (C) 11. (A) 12. (A) 13. (B) 14. (B) 15. (A)