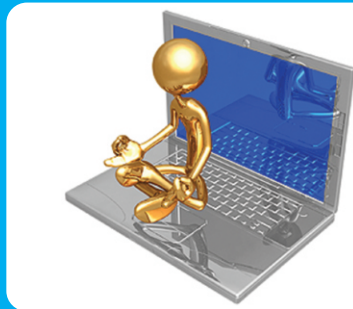


EtG

OLYMPIAD EXPLORER



Workbook for

International **CYBER** Olympiad
National/International Olympiads/Talent Search

Based on CBSE, ICSE, GCSE, State Board Syllabus & NCF (NCERT)

100's of Q's with answers

- Chapterwise Practice Q's
- Revision Q's
- Sample Paper



Class

6

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SYLLABUS GUIDELINES

**Based on CBSE, ICSE & GCSE Syllabus
& NCF guidelines revised by NCERT.**

World of Computers; Input & Output Devices; Word Processing;
Spreadsheet; Windows; Multimedia, Networking & Internet.



- Q.1.** RAM is used as a temporary memory because it is
(a) Volatile (b) Very expensive
(c) Of small capacity (d) Programmable
- Q.2.** The CPU chip used in a computer is partially made of :
(a) Copper (b) Iron
(c) Gold and Silver (d) Silica
- Q.3.** What is the control unit's function in the CPU?
(a) To transfer data to primary storage
(b) To store program instructions
(c) To perform logic operations
(d) To decode program instructions
- Q.4.** Application program routine does not consist of -
(a) Compiler (b) Linker
(c) Operating System (d) Utility Program
- Q.5.** Bit stands for
(a) Binary digit (b) Binary informations
(c) Binary data (d) Both (a) & (b)
- Q.6.** Which of the following is a part of the Central Processing Unit?
(a) Printer (b) Keyboard
(c) Mouse (d) Arithmetic Logic Unit
- Q.7.** A typical modern computer uses :
(a) LSI chips (b) vacuum tubes
(c) valves (d) all the above
- Q.8.** The term "memory" applies to which one of the following :
(a) logic (b) storage
(c) control (d) input device
- Q.9.** Which is not true for primary storage?
(a) Information must be transferred to primary storage
(b) It is relatively more expensive
(c) It allows very fast access to data
(d) All of the above
- Q.10.** Who was the father of Punched Card Processing?
(a) J. Presper Eckert (b) Charles Babbage
(c) Dr. Herman Hollerith (d) Blaise Pascal

- Q.11.** Which is widely used in academic testing?
 (a) MICR (b) POS
 (c) OCR (d) OMR
- Q.12.** Which is used for manufacturing chips?
 (a) Bus (b) Control unit
 (c) Semiconductors (d) Both (a) and (b)
- Q.13.** The computer code for the interchange of information between terminals is :
 (a) ASCII (b) BCD
 (c) EBCDIC (d) All of the above
- Q.14.** A character is represented in EBCDIC by:
 (a) One bit (b) Four bits
 (c) Eight bits (d) Sixteen bits
- Q.15.** The silicon chips used for data processing are called :
 (a) RAM chips (b) ROM chips
 (c) Micro processor (d) PROM chips
- Q.16.** The most common binary code in use today is the 8 bit ASCII code. What do the letters ASCII stand for?
 (a) American Standard Code for International Interchange
 (b) American Standard Code for Information Interchange
 (c) American Standard Code for Intelligence Interchange
 (d) American Scientific Code for Information Interchange
- Q.17.** Every thing computer does is controlled by its:
 (a) RAM (b) ROM
 (c) CPU (d) Storage devices
- Q.18.** An error in computer data is called :
 (a) Chip (b) Bug
 (c) Bit (d) Byte
- Q.19.** Which of the following memory is capable of operating at electronics speed?
 (a) Semiconductor memory
 (b) Magnetic disks
 (c) Magnetic drums (d) Magnetic tapes
- Q.20.** The instructions for starting the computer are on :
 (a) Random-access memory
 (b) CD-ROM
 (c) Read-only memory chips
 (d) All of the above

- Q.21.** Which of the following is the user programmed semiconductor memory?
 (a) SRAM (b) DRAM
 (c) EPROM (d) All of the above
- Q.22.** Which of the following is a secondary memory device?
 (a) Keyboard (b) Disk
 (c) ALU (d) All of the above
- Q.23.** The magnetic storage chips used to provide nonvolatile direct access storage of data and that have no moving parts are known as :
 (a) Magnetic core memory
 (b) Magnetic tape memory
 (c) Magnetic disk memory
 (d) Magnetic bubble memory
- Q.24.** The first IBM PC did not have any :
 (a) disk drive (b) RAM
 (c) ROM (d) port
- Q.25.** Which of the following is not currently a topic in computer science?
 (a) Speech recognition (b) Artificial intelligence
 (c) Thermodynamics (d) Multiprocessing
- Q.26.** Which chips are erasable by ultra-violet rays after removing them from the main circuit?
 (a) EPROM chips (b) EEPROM chips
 (c) PROM chips (d) All of the above
- Q.27.** The disadvantage of dynamic RAM over static RAM is :
 (a) Higher power consumption
 (b) Variable speed
 (c) Need to refresh the capacitor charge every once in two milliseconds
 (d) Higher bit density
- Q.28.** EPROM consists of :
 (a) Bipolar transistors (b) Easily erasable
 (c) MOSFETs (d) Diodes
- Q.29.** Which memory is nonvolatile and may be written only once?
 (a) RAM (b) EE-ROM
 (c) Both (a) and (b) (d) PROM

- Q.30.** Third generation computers are those which are built with integrated circuits. What was the name of the first third-generation computer and when was it introduced?
 (a) IBM-1620, 1964 (b) IBM-360, 1965
 (c) CDC-6600, 1962 (d) PDP-1401
- Q.31.** Which one of the following is the first second-generation computer?
 (a) IBM 7090 (b) IBM 801
 (c) IBM 7070 (d) IBM 650
- Q.32.** Who developed a mechanical device in the 17th century that could add, subtract, multiply, divide and find square roots?
 (a) Napier (b) Babbage
 (c) Pascal (d) Leibnitz
- Q.33.** First integrated circuit chip was developed by :
 (a) C.V. Raman (b) W.H. Britain
 (c) J.S. Kilby (d) Robert Noyce
- Q.34.** Why is a desktop computer called personal computer?
 (a) Because only persons can use it, not organisations
 (b) Because only one person can use it at any point of time
 (c) Because it belongs to a single person
 (d) Because it needs personal attention
- Q.35.** The personal-computer industry was started by :
 (a) IBM (b) Apple
 (c) Compaq (d) HCL
- Q.36.** Which of the following is true concerning personal computers?
 (a) They decrease the demand for main frame computers.
 (b) They have been most successful in the home.
 (c) The electronic spread sheet has been a primary reason for their popularity.
 (d) Their future is not so bright owing to the improved cost-performance ratio of minis and main frames.
- Q.37.** The arranging of data in a logical sequence is called :
 (a) Sorting (b) Classifying
 (c) Reproducing (d) Summarizing
- Q.38.** When was Apple Macintosh II microcomputer introduced in the market?
 (a) 1964 (b) 1970
 (c) 1983 (d) 1986

- Q.39.** The word length of a computer is measured in :
 (a) Bytes (b) Millimeters
 (c) Metres (d) Bits
- Q.40.** Who coordinates the sequencing of events within the central processor of a computer?
 (a) Logic unit (b) Arithmetic unit
 (c) Register (d) Control unit
- Q.41.** Where have the program and data to be located before the ALU and control unit of a computer can operate on it?
 (a) Internal memory (b) Secondary memory
 (c) Microprocessor (d) Magnetic tapes
- Q.42.** Which part of the computer is used for calculating and comparing?
 (a) Disk unit (b) Control unit
 (c) ALU (d) Modem
- Q.43.** Preparing a magnetic disk for data storage is called :
 (a) Booting (b) Formatting
 (c) Debugging (d) Commissioning
- Q.44.** The ALU of a computer responds to the commands coming from :
 (a) Primary memory (b) Control section
 (c) External memory (d) Cache memory
- Q.45.** A common example of a data storage medium is :
 (a) cartridge (b) floppies
 (c) tape (d) disk
- Q.46.** The two kinds of main memory are :
 (a) Primary and secondary (b) Random and sequential
 (c) ROM and RAM (d) All of the above
- Q.47.** Which of the following is not an alternative name for primary memory?
 (a) Main memory (b) Primary storage
 (c) Internal storage (d) Mass storage
- Q.48.** What is meant by the term RAM?
 (a) Memory which can only be read
 (b) Memory which can be both read and written to
 (c) Memory which is used for permanent storage
 (d) Memory which can only be written to

- Q.49.** The computer memory holds data and :
 (a) Bytes (b) Program
 (c) Registers (d) Bits
- Q.50.** The CPU chip used in a computer is partially made out of :
 (a) Silica (b) Carbon
 (c) Copper (d) Gold
- Q.51.** Main memory contains :
 (a) Data (b) Instructions
 (c) Both (a) and (b) (d) Either (a) and (b)
- Q.52.** Computer memory consists of _____ microchips.
 (a) RAM (b) ROM
 (c) PROM (d) All of the above
- Q.53.** The central processor of a modern digital computer consists of :
 (a) Control unit
 (b) Primary memory
 (c) Control unit and primary memory
 (d) None of above
- Q.54.** Which bank was the first to introduce ATMs to the world and when?
 (a) Standard Chartered bank, 1978
 (b) Bank of America, 1968
 (c) Citibank, 1970 (d) Hongkong Bank, 1972
- Q.55.** The very small and cheap computer built in the many home devices is called _____ computer :
 (a) Main frame (b) Mini
 (c) Micro (b) Super
- Q.56.** First computer in India was manufactured by :
 (a) CMC (b) ECIL
 (c) BEL (d) HCL
- Q.57.** The fastest type of memory from the following list is :
 (a) Tape (b) Semiconductor memory
 (c) Disk (d) Bubble memory
- Q.58.** An 8-bit unit used to code data is called a :
 (a) word (b) data set
 (c) K (d) byte

- Q.59.** The 3 functional elements of a digital computer are input device, output device and :
 (a) ALU (b) Register unit
 (c) CPU (d) Control unit
- Q.60.** The first mechanical calculating machine was made by :
 (a) William Oughtred (b) Gottfried Leibnitz
 (c) Blaise Pascal (d) Charles Babbage
- Q.61.** Computer memory consists of :
 (a) RAM (b) ROM
 (c) PROM (d) All of the above
- Q.62.** Program execution time would be minimum if the programs are written in :
 (a) Machine language (b) Assembly language
 (c) High level language (d) Any language
- Q.63.** Which of the following isn't used in the storage phase of a computer based information system?
 (a) Magnetic (b) Keyboard
 (c) Diskette (d) Hard disk



ANSWERS

1. (a) 2. (d) 3. (d) 4. (c) 5. (a) 6. (d) 7. (a) 8. (b)
 9. (a) 10. (c) 11. (d) 12. (c) 13. (a) 14. (c) 15. (c) 16. (b)
 17. (c) 18. (b) 19. (a) 20. (c) 21. (c) 22. (b) 23. (d) 24. (a)
 25. (c) 26. (a) 27. (c) 28. (c) 29. (d) 30. (b) 31. (a) 32. (d)
 33. (c) 34. (b) 35. (a) 36. (c) 37. (a) 38. (c) 39. (d) 40. (d)
 41. (a) 42. (c) 43. (b) 44. (b) 45. (d) 46. (a) 47. (d) 48. (b)
 49. (b) 50. (a) 51. (c) 52. (d) 53. (c) 54. (c) 55. (c) 56. (b)
 57. (b) 58. (d) 59. (c) 60. (c) 61. (d) 62. (a) 63. (b)



Input & Output Devices & Computer Language

- Q.1.** Which is not an input device?
 (a) CRT (b) Optical scanners
 (c) VRD
 (d) COM (Computer Output Microfilm)
- Q.2.** Keyboard, mouse, joystick, lightpen are some of the common
 (a) Output devices (b) Input devices
 (c) Memory devices (d) Storage devices
- Q.3. Match the following:-**
- | Column-A | Column-B |
|--------------------|--|
| P. Hybrid computer | 1. Father of modern computer |
| Q. Computer | 2. First calculating machine |
| R. Harvard Mark 1 | 3. High speed calculating machine |
| S. Charles Babbage | 4. Combination of digital and analog computers |
- (a) P-4, Q-3, R-2, S-1 (b) P-3, Q-4, R-1, S-2
 (c) P-4, Q-2, R-3, S-2 (d) none of these
- Q.4.** The printers that print one line at a time are
 (a) Line printer (b) Character printer
 (c) Thermal printer (d) Page printer
- Q.5.** Which one of the following devices could be used to convert a photograph into a document?
 (a) Modem (b) Monitor
 (c) Printer (d) Scanner
- Q.6.** The following typically happens in the output phase of a computer based information system :
 (a) Data is put into the computer for processing
 (b) Information is produced in hardcopy and/or softcopy form
 (c) Mathematical calculations are performed
 (d) The computer is turned off
- Q.7.** The input unit of a computer :
 (a) Feeds data to the CPU or memory
 (b) Retrieves data from CPU
 (c) Directs all other units
 (d) All of the above
- Q.8.** Which of the following are often used to ensure that data has been accurately input to the computer?
 (a) Digitizes (b) Light pens
 (c) Keyboards (d) Input controls
- Q.9.** Which of the following printers, are you sure will not use if your objective is to print on multicarbon forms?
 (a) Daisy wheel (b) Dot-matrix
 (c) Laser (d) Thimble
- Q.10.** Which of the following impact printers print fastest?
 (a) Band printer (b) Chain printer
 (c) Drum printer (d) Wire-matrix printer
- Q.11.** Which of the following printer can be classified as a page-at-a-time printer?
 (a) Laser printer (b) Dot-matrix printer
 (c) Thermal printer (d) Inkjet printer
- Q.12.** Which one of the following is a character-at-a-time printer?
 (a) Chain printer (b) Bank printer
 (c) Drum printer (d) Daisywheel printer
- Q.13.** The only function of a NOT gate is to :
 (a) Stop a signal (b) Recomplement a signal
 (c) Invert an output signal (d) Act as a universal gate
- Q.14.** The most widely used logic programming language is :
 (a) BASIC (b) COBOL
 (c) LOGO (d) PROLOG
- Q.15.** A peripheral device in which a large number of cartridges or reels of magnetic tape are stored in cells in a storage matrix is :
 (a) Keyboard (b) Monitor
 (c) Printer (d) Automated tape library
- Q.16.** An input device used with interactive graphics to locate a place on the screen is :
 (a) Touch panel (b) Tablet
 (c) Modem (d) Mouse
- Q.17.** A plastic card with flow chart symbols cut out of it is :
 (a) Punched card (b) Tape
 (c) Template (d) Spirit

- Q.18.** During the data gathering phase of the system analysis step:
- (a) Program flow-charts are often prepared
 - (b) The system design specifications are outlines
 - (c) A number of specialized forms may be prepared
 - (d) A standards manual is of little use
- Q.19.** A way of condensing programs to pack the most instructions into the smallest space is known as :
- (a) Crunching
 - (b) Control panel
 - (c) Concatenation
 - (d) Cybernation
- Q.20.** A high level language :
- (a) Uses symbols and words similar to those of ordinary arithmetic and English
 - (b) Is independent of any particular computer
 - (c) Requires a compiler to translate the language into machine language
 - (d) All of the above
- Q.21.** A language used to express algorithms in computer understandable form is :
- (a) Assembly language
 - (b) Low-level language
 - (c) Algorithmic language
 - (d) Programming language
- Q.22.** A language based on graphics for use in education is :
- (a) PROLOG
 - (b) LOGO
 - (c) COBOL
 - (d) BASIC
- Q.23.** MODULA is a :
- (a) Programming language
 - (b) Low-level language
 - (c) Assembly language
 - (d) Machine language



ANSWERS

1. (d) 2. (b) 3. (a) 4. (a) 5. (d) 6. (b) 7. (a) 8. (d)
 9. (c) 10. (b) 11. (a) 12. (d) 13. (c) 14. (d) 15. (d) 16. (b)
 17. (c) 18. (c) 19. (a) 20. (d) 21. (a) 22. (b) 23. (a)



INTERNATIONAL CYBER OLYMPIAD (ICO) SAMPLE PAPER

Total duration : 40 Minutes

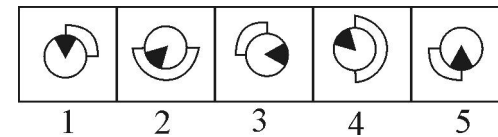
Total Marks : 25

SECTION - A

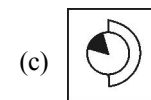
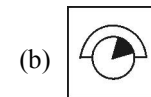
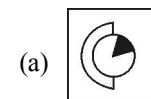
GENERAL IQ.

1. John thinks of a number. He adds 4. He multiplies his result by 3. Then he takes away 9. His final answer is 90. What number did John start with?
 (a) 90 (b) 29
 (c) 33 (d) None of these
2. In a regular pentagon how many lines are required to connect each corner with every other corner?
 (a) 7 (b) 9
 (c) 10 (d) None of these
3. Following question consists of five figures marked 1, 2, 3, 4 and 5 called the problem figures followed by (a), (b), and (c) called the answer figures. Select a figure from amongst the answer figures which will continue the same series as established by the five problem figures.

Problem Figure :



Answer Figure :



(d) None of these

4. In the following question, you are given a combination of letters followed by four options (a), (b), (c) and (d). Choose the options which most closely resembles the mirror-image of the given combination.

E F F E C T I V E

- (a) EVITCFFEE
- (b) EVITCEFFE
- (c) EFLIVLCEFFE
- (d) None of these




5. Three-fifths of the students in a class are girls. If 5 girls and 5 boys are added to the class, which statement is true of the class?

- (a) There are more girls than boys.
- (b) There are the same number of girls as there are boys.
- (c) There are more boys than girls.
- (d) None of these

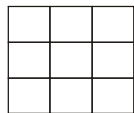
6. Sheela must buy paper plates and plastic forks for a picnic. Plates are sold in packages of 8 and forks in packages of 12. What is the least number of packages of plates and packages of forks that Sheela can buy to have an equal number of plates and forks?

- (a) 2 packages of plates and 3 packages of forks
- (b) 3 packages of plates and 2 packages of forks
- (c) 4 packages of plates and 6 packages of forks
- (d) 6 packages of plates and 4 packages of forks

7. Which of the following figure represents city, state, country ?

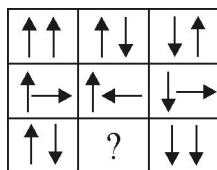
- (a) 
- (b) 
- (c) 
- (d) None of these




8. The maximum number of squares in the given figure is



- (a) 10
- (b) 13
- (c) 14
- (d) None of these

9. In the following question, find out which of the answer figures (a), (b) and (c) complete the figure-matrix?



- (a) 
- (b) 
- (c) 
- (d) None of these

10. A man walks 30 metres towards South. Then, turning to his right, he walks 30 metres. Then, turning to his left, he walks 20 metres. Again, he turns to his left and walks 30 metres. How far is he from his initial position?

- (a) 20 metres
- (b) 30 metres
- (c) 80 meters
- (d) None of these

SECTION - B
COMPUTERS

11. What is computer science?

- (a) Learning about algorithms, programs
- (b) Designing circuits for computers
- (c) Designing web pages
- (d) None of these

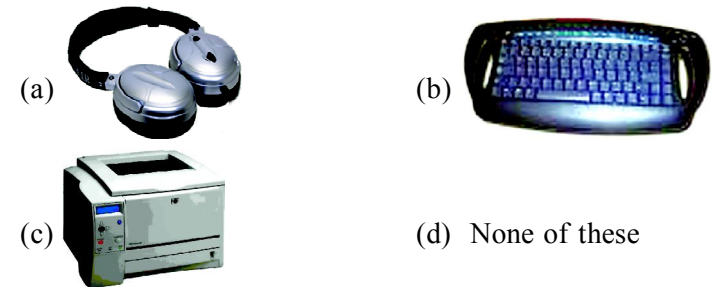
12. LAN, MAN, WAN, are three major kinds of Networks. What does WAN stand for?

- (a) Wide Area Network
- (b) World Architect News
- (c) World Area Network
- (d) None of these

13. 1 Gigabyte = ?

- (a) 1000 MB
- (b) 1024 MB
- (c) 1024 KB
- (d) 1000 KB

14. Which one of the following is an input device?



15. The equipments attached to CPU to which a computer can have access are called

- (a) Hardware
- (b) Input /Output devices
- (c) Peripherals
- (d) Computer components

16. Which of the following is used in First Generation computer?

- (a) Transistors (b) Valves
(c) Microprocessors (d) Integrated circuit

17. Electronic mail is the

- (a) Transmission of letters, messages and memos over a communications network
(b) Distribution of all information.
(c) Both (a) and (b) (d) None of the above

SECTION - C

INTERACTIVE SECTION

Use the following information to answer questions 18 to 22:

Rahul is making his mark sheet in MS Excel .

	A	B	C	D	E	F	G	H
7	Statement of Marks of 1st Terminal Examination							
8								
9								
10	Subject	Paper I	Paper II	Paper III	Total			
11	English	69	54	76	199			
12	Hindi	56	76	74	206			
13	Maths	70	65	87	230			
14	Science	98	71	78	247			
15	S.ST	65	72	74	211			
16	Computer Science	97	67	85	249			
17				Total				

18. He wants to show the sum of selected cells in Cell F17. Which one of the following he would choose?

- (a) A (b) B (c) D (d) None of these

19. The formula bar shows the cell number

- (a) F11 (b) F10 (c) F17 (d) None of these

20. He wants to sort his mark sheet in ascending order. Which icon he should choose?

- (a) (b)
(c) (d) None of these

21. He wants to sum all subjects' marks of Paper I. What formula he should put in cell C17?

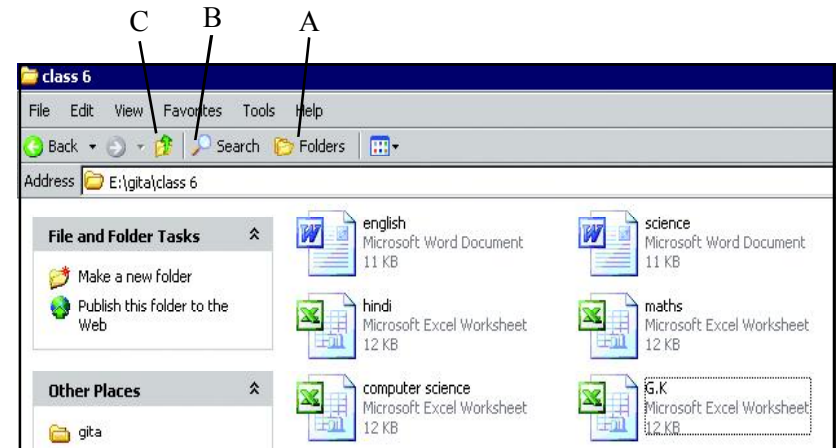
- (a) =Sum (C11:C16) (b) =Sum (C10:C17)
(c) =Sum(C12+C17) (d) None of these

22. If you want to delete the line "Statement of Marks of 1st Terminal Examination". Which cell would you select to operate delete command (The cells are not merged)?

- (a) C8 (b) D8 (c) B8 (d) None of these

Use the following information to answer questions 23 to 25:

Harish is working in class 6 folder. There are many files in class 6 folder.



23. What is the path to reach class 6 folder?

- (a) E:\gita \Class 6 (b) E:\class 6
(c) Both a and b (d) None of these

24. How many excel files are there in Class 6 folder?

- (a) 2 (b) 6 (c) 4 (d) None of these

25. He wants to make a new folder in class 6 folder. Which of the following he should choose?

- (a) A (b) B (c) C (d) None of these



ANSWERS

1. (b) 2. (c) 3. (b) 4. (a) 5. (a) 6. (b) 7. (a) 8. (c)
9. (a) 10. (d) 11. (a) 12. (a) 13. (b) 14. (b) 15. (c) 16. (b)
17. (c) 18. (b) 19. (b) 20. (c) 21. (a) 22. (c) 23. (a) 24. (c)
25. (a)

