

S.D.E.

M.C.A. SEM - VI : SUMMER - 2018

SUBJECT: COMPREHENSIVE EXAMINATION  
(OBJECTIVE TYPE)

Day: **Monday**  
Date: **04/06/2018**

S-2018-4641

Time: **02.00 P.M. TO 05.00 P.M**  
Max. Marks: 100

N.B.:

- 1) All questions are **COMPULSORY**.
- 2) Each question carries **TWO** marks.

- Q.1** Which of these is the worst case time complexity for looking up a key in a binary search tree and cannot be expressed in lower order terms?  
a)  $O(n)$  b)  $O(n \log n)$   
c)  $O(n^2)$  d) None of these
- Q.2** The graph algorithm which forms an essential component of the 'make' or 'ant build' used by programmers and software developers is ....  
a) Flow maximization algorithm  
b) Shortest path algorithm  
c) Minimum spanning tree algorithm  
d) None of these
- Q.3** A linear list in which each node has pointers to point to the predecessor and successors nodes is called as ....  
a) Single Linked List b) Circular Linked List  
c) Double Linked List d) None of these
- Q.4** The time complexity of quick sort is \_\_\_\_\_.  
a)  $O(n)$  b)  $O(n^2)$   
c)  $O(n \log n)$  d) None of these
- Q.5** The data structure which is one ended is \_\_\_\_\_.  
a) Queue b) stack  
c) tree d) None of these
- Q.6** All the operations in a digital system are synchronized by a clock that is generated by?  
a) Clock b) Clock generator  
c) Pulse d) None of these
- Q.7** In a single byte how many bits will be there?  
a) 8 b) 16  
c) 4 d) None of these
- Q.8** UMA stands for?  
a) Unit memory access b) Uniform memory access  
c) Unit memory array d) None of these
- Q.9** CPU does not perform the operation \_\_\_\_\_.  
a) Data transfer b) Logic operation  
c) Arithmetic operation d) None of these
- Q.10** Memory address refers to the successive memory words and the machine is called as \_\_\_\_\_.  
a) Word addressable b) Byte addressable  
c) Bit addressable d) None of these

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- Q.11** A complete microcomputer system consist of \_\_\_\_\_.  
a) Microprocessor                      b)Memory  
c) Peripheral equipment                d) None of these
- Q.12** A microprogram written as string of 0's and 1's is a \_\_\_\_\_.  
a) Symbolic microinstruction          b) Binary code  
c) symbolic microinstruction          d) None of these
- Q.13** The access time of memory is \_\_\_\_\_ the time required for performing any single CPU operation.  
a) Longer than                            b) Shorter than  
c) Negligible than                        d) None of these
- Q.14** Which of the following are the network services?  
a) File service                            b) Print service  
c) Database service                        d) None of these
- Q.15** In mesh topology, relationship between one device and another is \_\_\_\_\_.  
a) Primary to peer                        b) Peer to primary  
c) Primary to secondary                 d) None of these
- Q.16** Which of the communication modes support two way traffic but in only once direction of a time?  
a) Simplex                                 b) Half- duplex  
c) Three- quarter's duplex                d) None of these
- Q.17** \_\_\_\_\_ is a high performance fiber optic token ring LAN running at 100 Mbps over distances up to 1000 stations connected?  
a) FDDI                                      b) FDDC  
c) FDDR                                      d) None of these
- Q.18** The performance of data communications network depends on \_\_\_\_\_.  
a) Number of users                        b) The hardware and software  
c) The transmission                        d) All of the above
- Q.19** The name of the protocol which provides virtual terminal in TCP/ IP model is \_\_\_\_\_.  
a) Telnet                                    b) SMTP  
c) HTTP                                      d) None of these
- Q.20** Which is the one of the layer of the OSI model?  
a) Physical layer                          b) Line layer  
c) Router layer                              d) None of these
- Q.21** A \_\_\_\_\_ is a named location on a disk where files are stored.  
a) Folder                                    b) Pod  
c) Version                                  d) None of the above
- Q.22** Which command is used to record a user login session in a file?  
a) Macro                                    b) Read  
c) Script                                      d) None of these
- Q.23** Which one of the following is not a multitasking operating system?  
a) DOS                                        b) Window  
c) Unix                                        d) None of these
- Q.24** The banker's algorithm is used.....  
a) to rectify deadlock                      b) to detect deadlock  
c) to prevent deadlock                      d) None of these

- Q.25** The Basic Input Output System (BIOS) resides in.....  
a) RAM b) ROM  
c) CPU d) None of these
- Q.26** A small part of taskbar that has icons of background running applications is \_\_\_\_\_.  
a) Start button b) Quick launch  
c) Task bar d) None of these
- Q.27** \_\_\_\_\_ is the layer of a computer system between the hardware and the user program.  
a) Operating environment b) Operating system  
c) System environment d) None of these
- Q.28** Main function of shared memory is \_\_\_\_\_  
a) to use primary memory efficiently  
b) to do intra process communication  
c) to do inter process communication  
d) None of these
- Q.29** \_\_\_\_\_ software makes use of non-numerical algorithms to solve complex problems that are not amenable to computation or straightforward analysis.  
a) Artificial Intelligence b) Web-based  
c) Embedded d) None of above
- Q.30** \_\_\_\_\_ enhances performance and functionality of the software after delivery.  
a) re-design b) re-engineering  
c) maintenance d) None of these
- Q.31** \_\_\_\_\_ is a function of the number of failures experienced by a particular user of that software.  
a) Software Usability b) Software reliability  
c) Software performance d) None of these
- Q.32** Which of the following is a graphical language for software design?  
a) UML b) DML  
c) EEML d) None of these
- Q.33** Main function of cache memory is \_\_\_\_\_  
a) to refer recent accessed data  
b) to do intra process communication  
c) to do inter process communication  
d) None of these
- Q.34** The efficient data structure to insert and delete a number in a stored set of numbers is \_\_\_\_\_  
a) Queue b) Linked List  
c) Double Linked List d) None of these
- Q.35** Which among following is Volatile memory?  
a) ROM b) EPROM  
c) DRAM d) None of these
- Q.36** A collection of lines that connects several devices is called .....  
a) bus b) peripheral connection wires  
c) star d) None of these

- Q.37** Which register is memory pointer?  
a) Source index                      b) Instruction register  
c) Stack pointer                      d) None of these
- Q.38** The performance of the cache memory is measured in terms of \_\_\_\_  
a) Hit Ratio                              b) Chat Ratio  
c) Copy Ratio                          d) None of these
- Q.39** Program Counter is also called \_\_\_\_\_.  
a) instruction pointer                  b) memory pointer  
c) data counter                         d) None of these
- Q.40** The file/proc locks displays the file currently locked by the \_\_\_\_  
a) kernel                                 b) user  
c) Super user                          d) None of these
- Q.41** The file/proc version shows the version of \_\_\_\_\_ used in the system.  
a) kernel                                 b) gcc  
c) shell                                  d) None of these
- Q.42** What is proc self?  
a) a directory                            b) link to the currently running process  
c) it allows a process to look itself without having to know its process  
d) None of these
- Q.43** Which command is used to set terminal IO characteristic?  
a) tty                                      b) cty  
c) pty                                      d) None of these
- Q.44** Which command is used to record a user login session in a file?  
a) macro                                 b) read  
c) script                                 d) none of these
- Q.45** Who is father of C Language?  
a) Bjarne Stroustrup                    b) James A. Gosling  
c) Dennis Ritchie                      d) None of above
- Q.46** C programs are converted into machine language with the help of \_\_\_\_  
a) An Editor                              b) A compiler  
c) An operating system                  d) None of these
- Q.47** Which one of the following is not a reserved keyword for C?  
a) autom                                 b) case  
c) main                                  d) default
- Q.48** Comment on the output of following code:  
# include <stdio.h>  
main ()  
{  
char \* p =0;  
\*p = 'a' ;  
Printf ( " value in pointer p is % \ n", \*p);  
}  
a) it will print a                         b) it will print 0  
c) compile time error                    d) None of the above
- Q.49** Which of the following is/ are the levels of implementation of data structure  
a) Abstract level                         b) Application level  
c) implementation level                 d) All of the above
- Q.50** Stack is also called as \_\_\_\_\_.  
a) Last in first out                      b) first in last out  
c) Last in last out                      d) none of the above