# University of Mumbai 

Program: _First Year (All Branches) Engineering - SEM-II
Curriculum Scheme: Rev 2019
C-Programming

## Question Bank

| Q1. | Choose the correct option for following questions. All the Questions are compulsory and carry equal marks |
| :---: | :---: |
| 1. | Which storage class is called as default storage class ? |
| Option A: | auto |
| Option B: | register |
| Option C: | static |
| Option D: | extern |
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| 2. | What inbuilt function should be used to return a value rounded up to the next higher integer? |
| Option A: | floor |
| Option B: | malloc |
| Option C: | puts |
| Option D: | ceil |
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| 3. | In the following initialization what is value of $\mathrm{A}[5]$ ? int $\mathrm{A}[10]=\{9,8,7,6,5,4,3$, 2, 1, 0\}; |
| Option A: | 5 |
| Option B: | 4 |
| Option C: | 3 |
| Option D: | 2 |
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| 4. | What is the output for the following code? <br> int main() <br> \{ <br> int $\mathrm{a}=5$, i ; <br> $\mathrm{i}!=\mathrm{a}>10$; <br> printf("i=\%d",i); <br> return 0; <br> \} |
| Option A: | $\mathrm{i}=0$ |
| Option B: | $\mathrm{i}=10$ |
| Option C: | $\mathrm{i}=110$ |
| Option D: | $\mathrm{i}=1$ |
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| 5. | How many times will the following while-loop repeat, i.e., how many x are printed? int main() <br> \{ <br> int $\mathrm{i}=5$; <br> while( $\mathrm{i}>0$ ) <br> \{ <br> printf("x"); <br> i--; <br> \} <br> return 0; |


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| :---: | :--- |
| Option A: | 2 |
| Option B: | 3 |
| Option C: | 4 |
| Option D: | 5 |
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| 6. | Which among the following is an exit controlled loop ? |
| Option A: | for |
| Option B: | while |
| Option C: | do... while |
| Option D: | if...else |
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| :---: | :---: |
| 7 | What is another name for 1-D arrays? |
| Option A: | Linear arrays |
| Option B: | Lists |
| Option C: | Horizontal array |
| Option D: | Vertical array |
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| 8 | Which of the following operators takes only integer operands? |
| Option A: | + |
| Option B: | * |
| Option C: | / |
| Option D: | \% |
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| 9 | What is value of a in following expression? int $\mathrm{a}=10+4.867$; |
| Option A: | $\mathrm{a}=10$ |
| Option B: | $\mathrm{a}=14.867$ |
| Option C: | $a=14$ |
| Option D: | $a=4$ |
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| 10 | C programs are converted into machine language with the help of ----------. |
| Option A: | an editor |
| Option B: | an Assembler |
| Option C: | a compiler |
| Option D: | an operating system |
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| 11 | What is the output of the program.? int main() <br> \{ <br> float $\mathrm{a}=45$; <br> printf("\%f", a); <br> return 0 ; |
| Option A: | 45 |
| Option B: | 45.0 |
| Option C: | 45.000000 |
| Option D: | 0.000000 |
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| 12 | Which among the following is a Conditional Operator in C ? |


| Option A: | ?: |
| :---: | :---: |
| Option B: | :? |
| Option C: | <= |
| Option D: | $>=$ |
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| 13 | What is the output of the C statement.? int main() <br> \{ <br> int $\mathrm{a}=0$; <br> $a=5<2$ ? $4: 3$; <br> printf("\%d",a); <br> return 0; |
| Option A: | 4 |
| Option B: | 3 |
| Option C: | 5 |
| Option D: | 2 |
|  |  |
| 14 | Recursion is a process in which a function calls |
| Option A: | itself |
| Option B: | another function |
| Option C: | main() function |
| Option D: | sub program |
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| 15 | What is the Format specifier used to print a character in C.? |
| Option A: | \%s |
| Option B: | \%c |
| Option C: | \%C |
| Option D: | \%W |
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| 16 | Which of the following is not a relational operator? |
| Option A: | $>=$ |
| Option B: | >> |
| Option C: | $=$ |
| Option D: | != |
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| 17 | Which one of the following is a valid C expression? |
| Option A: | int my_number $=1000$; |
| Option B: | int my-number=1000; |
| Option C: | int my@number=1000; |
| Option D: | int @mynumber=1000; |
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| 18 | What will be the output of the following C code? \#include <stdio.h> <br> int main() <br> ? <br> int $\mathrm{a}=1, \mathrm{~b}=1, \mathrm{c}$; $\mathrm{c}=\mathrm{a}+++\mathrm{b} ;$ <br> $\operatorname{printf}(" a=\% d, b=\% d ", a, b)$; |


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| Option A: | $a=1, b=1$ |
| Option B: | $a=2, b=1$ |
| Option C: | $a=2, b=2$ |
| Option D: | $a=1, b=2$ |
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| 19 | What will be the output of the following C code? ```#include <stdio.h> void main() { int x = 5; if (x== 5) printf("hiln"); else printf("how are u\n"); printf("hello\n"); }``` |
| Option A: | hi |
| Option B: | $\begin{array}{\|l} \hline \text { hi } \\ \text { hello } \\ \hline \end{array}$ |
| Option C: | how are you hello |
| Option D: | how are you |
| 20 | ```What will be the output of the following C code? (Assuming that we have entered the value 1 in the standard input). #include <stdio.h> void main() { int ch; printf("enter a value between 1 to 2:"); scanf("%d", &ch); switch (ch) { case 1: printf("1\n"); break; printf("hi"); default: printf("2\n"); } }``` |
| Option A: | 1 |
| Option B: | $\begin{aligned} & 1 \\ & \mathrm{hi} \\ & \hline \end{aligned}$ |
| Option C: | hi |
| Option D: | 2 |
| 21 | What will be the output of the following C code? ```#include <stdio.h> int main() { int i=0;``` |


|  | ```while (i = 0) printf("True\n"); printf("False\n");``` \} |
| :---: | :---: |
| Option A: | True |
| Option B: | False |
| Option C: | True False |
| Option D: | True (Infinite Times) |
| 22 | What will be the output of the following C code? ```#include <stdio.h> int main() { int x = 0; if (x== 1) if (x==0) printf("inside if\n"); else printf("inside else ifln"); else printf("inside else\n");``` \} |
| Option A: | inside if inside else |
| Option B: | inside else if |
| Option C: | inside if |
| Option D: | inside else |
| 23 | The value obtained in the function is given back to the main program by using which keyword? |
| Option A: | new |
| Option B: | return |
| Option C: | volatile |
| Option D: | static |
| 24 | ```What will be the output of the following C code? #include <stdio.h> void main() { m(); m(); } void m() { static int x = 5; x++; printf("%d", x); }``` |
| Option A: | 55 |
| Option B: | 56 |
| Option C: | 66 |
| Option D: | 67 |


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| :---: | :---: |
| 25 | An array Index starts with.? |
| Option A: | 0 |
| Option B: | 1 |
| Option C: | -1 |
| Option D: | 2 |
| 26 | ```What will be the output of the following C code? #include <stdio.h> void main() { char string[]={'E','X','A','M','\0'}; printf("%s",string); }``` |
| Option A: | E |
| Option B: | EXAM0 |
| Option C: | EXAM\0 |
| Option D: | EXAM |
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| 27 | Which one of the following is NOT an identifier? |
| Option A: | _cprogram |
| Option B: | c_program |
| Option C: | 20cprogram |
| Option D: | cprogram20 |
| 28 | ```What will be the output of the following program? int main() ? int \(1=9\); while( \(\mathrm{i}++<10\) ) printf("\%d\n",i); return 0;``` |
| Option A: | 9 |
| Option B: | 10 |
| Option C: | 1 |
| Option D: | 11 |
| 29 | What will be the output of the following program? int main() <br> \{ $\begin{aligned} & \text { int a,b,c,d,e,f,g,h,k; } \\ & \mathrm{a}=8, \mathrm{~b}=4, \mathrm{c}=2, \mathrm{~d}=1, \mathrm{e}=5, \mathrm{f}=20 ; \\ & \text { printf("\%dln",a+b-(c+d)*3\%e+f/9); } \\ & \text { return } 0 ; \end{aligned}$ |
| Option A: | 10 |
| Option B: | 9 |
| Option C: | 8 |
| Option D: | 20 |
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| 30 | If a is a variable initialized to 1, how many times will the following loop be executed? |


|  | $\begin{aligned} & \text { while }((\mathrm{a}>0) \& \&(\mathrm{a}<25)) \\ & \{ \\ & \text { loopbody } \\ & \mathrm{a}++; \end{aligned}$ |
| :---: | :---: |
| Option A: | 25 |
| Option B: | 24 |
| Option C: | 20 |
| Option D: | 26 |
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| 31 | In an array a[2] [2] = \{10,20,30,40,50,60\}, then a[0] [1] is which element? |
| Option A: | 10 |
| Option B: | 20 |
| Option C: | 30 |
| Option D: | 40 |
|  |  |
| 32 | ```What will be the output of the following program? int main() ? int \(\mathrm{a}=500, \mathrm{~b}=100, \mathrm{c}\); if(! \(a>=400)\) \(\mathrm{b}=300\); else \(\mathrm{b}=\mathrm{b}+++\mathrm{b} * \mathrm{a} / \mathrm{b}\); c = 10; \(\mathrm{c}=\mathrm{b} \ll 1\); \(\mathrm{c}=\mathrm{c} \gg \mathrm{b}+1\); printf("b = \%d c = \%dln", b, c); return 0;``` |
| Option A: | $\mathrm{B}=600, \mathrm{c}=3$ |
| Option B: | $\mathrm{B}=600, \mathrm{c}=2$ |
| Option C: | $\mathrm{B}=600, \mathrm{c}=1$ |
| Option D: | $\mathrm{B}=600, \mathrm{c}=0$ |
|  |  |
| 33 | Which bitwise operator is used for turning off a particular bit in a number? |
| Option A: |  |
| Option B: | ^ |
| Option C: |  |
| Option D: | ~ |
|  |  |
| 34 | ```What will be the output of the following program? int i; int goodday(); int main() \{ while(i) \{ main(); goodday(); i++; printf("Exam\n"); return 0; int goodday() \(\{\) printf("Goodday");``` |


|  | द |
| :--- | :--- |
| Option A: | Goodday |
| Option B: | Exam Goodday |
| Option C: | Exam |
| Option D: | Goodday Exam |


| 1. | Write a program to read Title, Author and Price of 5 books using array of structures. Display the records in ascending order of Price. |
| :---: | :---: |
| 2. | Implement a program to perform addition of two matrices. |
| 3. | Write a program to check whether a word is palindrome or not.. |
| 4. | What are bitwise and logical operators in C ? |
| 5. | What are strings and give any four string related functions. |
| 6. | Implement a program to find transpose of a matrix. |
| 7. | Write a C program to find LCM of two numbers using recursion. |
| 8. | Distinguish between structure and union. |
| 9. | What are the tokens of c language explain with example. |
| 10. | Explain while loop with example. |
| 11. | Write a program to print Fibonacci series. |
| 12. | Write a program using recursion to find factorial of a number. |
| 13. | Explain nested structures with examples. |
| 14. | Write a C program to perform multiplication of two matrices. |
| 15. | Explain conditional operator used in C language with proper example. |
| 16. | Explain the term recursion. Write a program to find the power of x raised to n that is: $\mathrm{x}^{\mathrm{n}}$, using recursive function. |
| 17. | Explain following functions with example sqrt(), fabs(), pow(), ceil(), floor() |
| 18. | Write a program to print the following pattern. <br> A <br> B B <br> C C C <br> D D D D |
| 19. | Write a program to find largest element of an 1D array. |
| 20. | Write a Program to calculate and display sum of all the elements of the matrix. |
| 21. | Define a structure called player with data members as player name, team name, batting average. Store and display the information of at least 10 players. |
| 22. | Write a program to accept three numbers from the user and display the greatest of three using the conditional operator. |
| 23. | Write a program to display the following for the user specified number of lines. |

$\left.\left.\begin{array}{|r|l|}\hline & \begin{array}{l}\text { ** } \\ * * * \\ * * * * \\ * * * * * \\ * * * * * *\end{array} \\ \hline \mathbf{2 4 .} & \text { Write a program to check if the entered number is prime number or not. }\end{array} \right\rvert\, \begin{array}{l}\text { 25. }\end{array} \begin{array}{l}\text { Write a program in C to find out the power of x raised to n (xn), using non-recursive } \\ \text { function. }\end{array}\right]$
41. $\quad$ Give the difference between entry and exit controlled loop with an example.
42. Differentiate between arrays and structures.

