**1. What is data structure?**   
Answer:  A data structure is a way of organizing data that considers not only the items stored, but also their relationship to each other. Advance knowledge about the relationship between data items allows designing of efficient algorithms for the manipulation of data.  
   
**2. List out the areas in which data structures are applied extensively?**   
Compiler Design,  
Operating System,  
Database Management System,  
Statistical analysis package,  
Numerical Analysis,  
Graphics,  
Artificial Intelligence,  
Simulation  
   
 **3. What are the major data structures used in the following areas : RDBMS, Network data model & Hierarchical data model**.  
   
RDBMS  ?? Array (i.e. Array of structures)  
Network data model  ?? Graph  
Hierarchical data model ?? Trees  
  
 **4. If you are using C language to implement the heterogeneous linked list, what pointer type will you use?**  
   
 The heterogeneous linked list contains different data types in its nodes and we need a link, pointer to connect them. It is not possible to use ordinary pointers for this. So we go for void pointer. Void pointer is capable of storing pointer to any type as it is a generic pointer type.  
  
**5. Minimum number of queues needed to implement the priority queue?** Two. One queue is used for actual storing of data and another for storing priorities.  
  
**6. What is the data structures used to perform recursion?**  
   
 Stack. Because of its LIFO (Last In First Out) property it remembers its ??caller?? so knows whom to return when the function has to return. Recursion makes use of system stack for storing the return addresses of the function calls.    
Every recursive function has its equivalent iterative (non-recursive) function. Even when such equivalent iterative procedures are written, explicit stack is to be used.  
   
 CDAC Placement Paper and Sample Paper  
   
 **1.The programming language that was designed for specifying algorithm**  
 Address  
ASCII  
ALGOL  
None of these options  
  
**2. \_\_\_\_\_ contains the addresses of all the records according to the contents of the field designed as the record key.** Index<------ans  
 Subscript  
Array  
File  
  
 **3. \_\_\_\_\_\_\_\_\_ symbol is used for Processing of data.**  
 Oval  
 Parallelogram<------ans  
 Rectangle  
Diamond  
  
 **4. \_\_\_\_\_\_\_\_\_\_ is the analysis tool used for planning program logic**  
 Protocol  
None of these options  
PROLOG  
Pseudocode  
  
**5. Machine language has two part format the first part is\_\_\_\_\_\_\_\_\_\_ and the second part is** \_\_\_\_\_\_\_\_\_\_  
 OPCODE,OPERAND<------ans  
 OPERAND,OPCODE  
DATA CODE,OPERAND  
OPERAND,CODEOP  
  
**6. Language Primarily used for internet-based applications**  
 ADA  
C++  
 JAVA<------ans  
 FORTRAN  
  
**7. \_\_\_\_\_\_\_\_\_ is a point at which the debugger stops during program execution and awaits a further command.**  
 Memory Dump  
 Watch point<------ans  
 Break point  
None of these options  
  
 8. \_\_\_\_\_\_\_\_do not contain any program logic and are ignored by the language processor.  
 Protocol  
Virus  
Comment  
None of these options  
  
 9. The component of data base management system is \_\_\_\_\_\_\_\_  
 Data definition Language  
Data manipulation Language  
Data definition Language and Data manipulation Language  
None of these options  
  
 10. The quality of Algorithm is judged on the basis of\_\_\_\_\_\_\_\_\_  
 Time requirement  
Memory Requirement  
Accuracy of solution  
 All of these options<------ans  
   
 11. Advantages of using flow charts is  
 Effective Analysis  
Efficient Coding  
Time consuming  
 Effective Analysis and Efficient Coding<-----ans  
   
Programming in C  
  
 12. The Real constants in C can be expressed in which of the following forms  
 Fractional form only  
Exponential form only  
ASCII form only  
 Both Fractional and Exponential forms<------ans  
   
 13. The program, which translates high-level program into its equivalent machine language program, is called  
 Transformer  
Language processor  
Converter  
 None of these options<------ans  
   
 14. Consider the following statements.  
 i.Multiplication associates left to right  
 ii.Division associates left to right  
iii.Unary Minus associates right to left  
 iv.subtraction associates left to right All are true <------ans  
Only i and ii are true  
All are false  
Only iii and iv are true  
  
 15. What will be the value of variable a in the following code?  
 unsigned char a;  
a = 0xFF + 1;  
printf("%d", a);  
0xFF  
0x100  
 0 <------ans  
 0x0  
  
16. What is the output of the following program?  
#include  
void main()  
{  
printf("  
10!=9 : %5d",10!=9);  
}  
 1<------ans  
 0  
Error  
None of these options  
  
 17. #include  
void main()  
{  
int x=10;  
(x<0)?(int a =100):(int a =1000);  
printf(" %d",a);  
}  
 Error<------ans  
 1000  
100  
None of these options  
  
 18. Which of the following shows the correct hierarchy of arithmetic operations in C  
 (), \*\*, \* or /, + or -  
(), \*\*, \*, /, +, -  
(), \*\*, /, \*, +, -  
 (), / or \*, - or + <-----ans  
   
 19. What is the output of the following code?  
 #include  
void main()  
{  
int a=14;  
a += 7;  
a -= 5;  
a \*= 7;  
printf("  
%d",a);  
}  
 112<------ans  
 98  
89  
None of these options  
  
 20. What is the output of the following code? #include  
 #define T t  
void main()  
{  
char T = `T`;  
printf("  
%c %c  
",T,t);  
}  
Error  
T t  
 T T---ans  
 t t  
CDAC Paper - Part 2  
  
 21. The statement that prints out the character set from A-Z, is  
 for( a = `z`; a < `a`; a = a - 1)  
printf("%c", &a);  
for( a = `a`; a <= `z`; a = a + 1  
printf("%c", &a);  
 for( a = `A`; a <= `Z`; a = a + 1)<----Ans printf("%c", a);  
 for( a = `Z`; a <= `A`; a = a + 1)  
printf("%c", a);  
  
22. The statement which prints out the values 1 to 10 on separate lines, is  
for( count = 1; count <= 10; count = count + 1) printf("%d  
",count);  
for( count = 1; count < 10; count = count + 1) printf("%d  
",count);<------ans  
for( count = 0; count <= 9; count = count + 1) printf("%d ",count);  
for( count = 1; count <> 10; count = count + 1) printf("%d  
",count);  
  
 23. What does the term `call-by-reference` refer to?  
 Passing a copy of a variable into a function. Passing a pointer to a variable into a function. <------ans  
 Choosing a random value for a variable.  
A function that does not return any values.  
  
 24. What is the output of the following code? #include  
 void swap(int&, int&);  
void main()  
{  
int a = 10,b=20;  
swap (a++,b++);  
printf("  
%d %d ",a, b);  
}  
void swap(int& x, int& y)  
{  
x+=2;  
y+=3;  
}  
14, 24  
 11, 21 <------ans  
 10, 20  
Error  
  
 25. What is the output of the following program code  
   
#include  
void abc(int a[])  
{  
a++;  
a[1]=612;  
}  
main()  
{  
char a[5];  
abc(a);  
printf("%d",a[4]);  
}  
100  
612  
 Error<------ans  
 None of these options  
  
 26. which of the following is true about recursive function  
 i. it is also called circular definition  
ii. it occurs when a function calls another function more than once  
iii. it occurs when a statement within the function calls the function itself  
  
iv. a recursive function cannot have a return statement within it"  
 i and iii<------ans  
 i and ii  
ii and iv  
i, iii and iv  
  
 27.What will happen if you assign a value to an element of an array whose subscript exceeds the size of the array?  
 The element will be set to 0  
Nothing, its done all the time  
Other data may be overwritten  
Error message from the compiler  
  
 28. What is the output of the following code? #include  
 void main()  
{  
int arr[2][3][2]={{{2,4},{7,8},{3,4},}, {{2,2},{2,3},{3,4}, }}; printf("  
%d",\*\*(\*arr+1)+2+7);  
}  
 16 <------ans  
 7  
11  
Error  
  
 29. If int s[5] is a one dimensional array of integers, which of the following refers to the third element in the array?  
 \*( s + 2 ) <------ans  
 \*( s + 3 )  
s + 3  
s + 2  
  
 30. #include"stdio.h"  
main()  
{  
int \*p1,i=25;  
void \*p2;  
p1=&i;  
p2=&i;  
p1=p2;  
p2=p1;  
printf("%d",i);  
}  
The output of the above code is :  
 Program will not compile <------ans  
 25  
Garbage value  
Address of I  
  
 31. What is the output of the following code? void main()  
 {  
int i = 100, j = 200;  
const int \*p=&i;  
p = &j;  
printf("%d",\*p);  
}  
100  
 200 <------ans  
 300  
None of the above  
  
 32.  void main()  
{  
int i=3;  
int \*j=&i;  
clrscr();  
printf("%d%d",++\*j,\*(&i));  
}  
 What is the output of this program?  
 3 3  
 4 3 <------ans  
 4,address of i printed  
Error:Lvalue required  
  
 33. What is the output of the following code? #include  
 void main()  
{  
int arr[] = {10,20,30,40,50};  
int \*ptr = arr;  
printf("  
%d %d ",\*ptr++,\*ptr);  
}  
10 20  
 10 10<------ans  
 20 20  
20 10  
  
 34. Which of these are reasons for using pointers?  
 1.To manipulate parts of an array  
2.To refer to keywords such as for and if  
3.To return more than one value from a function 4.To refer to particular programs more conveniently  
 1 & 3 <------ans  
 Only 1  
Only 3  
All of the above  
  
 35. struct num  
 {  
int no;  
char name[25];  
};  
void main()  
{  
struct num n1[]={{25,"rose"},{20,"gulmohar"}, {8,"geranium"},{11,"dahalia"}};  
printf("%d%d" ,n1[2].no,(\*&n1+2)->no+1);  
}  
 What is the output of this program?  
 8 8  
 8 9 <------ans  
 9 8  
8 , unpredictable  
  
 36. During initializing a union  
   
Only one member can be initialised.  
 All the members will be initialised. Initialisation of a union is not possible.<------ans  
 None of these options  
  
 37. Self referential structure is one  
 a. Consisting the structure in the parent structure  
b. Consisting the pointer of the structure in the parent structure  
Only a  
Only b  
Both a and b  
Neither a nor b  
  
 38. Individual structure member can be initialized in the structure itself  
 True  
False  
Compiler dependent  
None of these options  
  
 39. Which of the following is the feature of stack?  
 All operations are at one end  
It cannot reuse its memory  
All elements are of different data types  
 Any element can be accessed from it directly<------ans  
   
 40. When stacks are created  
 Are initially empty<------ans  
 Are initialized to zero  
Are considered full  
None of these options  
CDAC Paper - Part 3  
  
 41. What is time required to insert an element in a stack with linked implementation?  
 (1)  
 (log2n)<------ans  
 (n)  
(n log2n)  
  
 42. Which of the following is the feature of stack?  
 All operations are at one end  
It cannot reuse its memory  
All elements are of different data types  
 Any element can be accessed from it directly<------ans  
   
 43. Time taken for addition of element in queue is  
 (1)  
(n)  
 (log n)<------ans  
 None of these options  
  
 44. When is linear queue said to be empty ? Front==rear  
  
 Front=rear-1  
Front=rear+1  
 Front=rear<------ans  
   
 45. When queues are created  
 Are initially empty<------ans  
 Are initialized to zero  
Are considered full  
None of the above  
  
 46. What would be the output of the following program?  
 #include  
main()  
{  
printf("  
%c", "abcdefgh"[4]);  
}  
abcdefgh  
d  
 e <------ans  
 error  
  
 47. Select the correct C code which will read a line of characters(terminated by a  
) from input\_file into a character array called buffer. NULL terminate the buffer upon reading a  
.  
   
int ch, loop = 0; ch = fgetc( input\_file ); while( (ch != `  
`)&& (ch != EOF) ){buffer[loop] = ch; loop++; ch = fgetc(input\_file );} buffer[loop] = NULL;  
  
int ch, loop = 0; ch = fgetc( input\_file ); while( (ch = "  
")&& (ch = EOF)) { buffer[loop] = ch; loop--; ch = fgetc(]input\_file ); } buffer[loop]= NULL;  
  
int ch, loop = 0; ch = fgetc( input\_file ); while( (ch <> "  
")&& (ch != EOF) ) { buffer[loop] = ch; loop++; ch = fgetc(input\_file ); } buffer[loop] = -1;  
  
None of the above  
  
 48. What is the output of the following code ?  
 void main()  
{  
int a=0;  
int b=0;  
++a == 0 || ++b == 11;  
printf("  
%d,%d",a,b);  
}  
0, 1  
 1, 1 <------ans  
 0, 0  
1, 0  
  
 49. What is the output of the following program? #define str(x)#x  
 #define Xstr(x)str(x)  
#define oper multiply  
void main()  
{  
char \*opername=Xstr(oper);  
printf("%s",opername);  
}  
opername  
Xstr  
 multiply <------ans  
 Xstr  
  
 50. What is the output of the following code ? #include  
 #include  
void main()  
{  
char \*a = "C-DACACTS  
"; printf("%s  
",a); }  
C-DAC ACTS  
ACTS  
 C-DAC <------ans  
 None of these  
  
  51. #include  
void main()  
{  
while (1)  
{if (printf("%d",printf("%d")))  
break;  
else  
continue;  
}  
}  
The output is  
Compile time error  
Goes into an infinite loop  
 Garbage values <------ans  
 None of these options  
  
 52. Select the correct C statements which tests to see if input\_file has opened the data file successfully.If not, print an error message and exit the program.  
 if( input\_file == NULL ) { printf("Unable to open file.  
");exit(1); }  
  
if( input\_file != NULL ) { printf("Unable to open file.  
");exit(1); }  
while( input\_file = NULL ) { printf("Unable to open file.  
");exit(1);}  
None of these options  
  
 53.The code  
 int i = 7;  
printf("%d  
", i++ \* i++);  
prints 49  
 prints 56 <------ans  
 is compiler dependent  
\_expression i++ \* i++ is undefined  
  
 54. Recursive procedure are implemented by  
 Linear list  
Queue  
Tree  
 Stack<------ans  
   
 55. Which of these are reasons for using pointers?  
 1. To manipulate parts of an array  
2. To refer to keywords such as for and if  
3. To return more than one value from a function 4. To refer to particular programs more conveniently  
 1 & 3<------ans  
 only 1  
only 3  
None of these options  
  
56. The \_expression x = 4 + 2 % -8 evaluates to -6  
6  
4  
None of these options  
  
 57. What is the output of the following code? #include  
 main()  
{  
register int a=2;  
printf("  
Address of a = %d,", &a); printf(" Value of a = %d",a);  
 Address of a,2 <------ans  
 Linker error  
Compile time error  
None of these options  
  
 58. What is the output of the following code? #include  
 void main()  
{  
int arr[]={0,1,2,3,4,5,6};  
int i,\*ptr;  
for(ptr=arr+4,i =0; i<=4; i++) printf("  
%d",ptr[-i]);(as the 0=4,for -1 it becomes =3)  
}  
Error  
6 5 4 3 2  
0 garbage garbage garbage garbage  
 4 3 2 1 0 <------ans  
   
 59. Which of the following is the correct way of declaring a float pointer:  
 float ptr;  
 float \*ptr; <------ans  
 \*float ptr;  
None of the above  
  
 60.If the following program (newprog) is run from the command line as:newprog 1 2 3 What would be the output of the following?  
 void main (int argc, char\*argv[])  
{  
int I,j=0;  
for (I=0;I  
j=j + atoi(argv[I]);  
printf("%d",j);  
}  
123  
6  
123  
 Compilation error<------ans  
   
 Programming Concepts  
CDAC Paper - Part 4  
   
 61. The ability to reuse objects already defined, perhaps for a different purpose, with modification appropriate to the new purpose, is referred to as  
 Information hiding  
Inheritance  
Redefinition  
Overloading  
  
 62. The term given to the process of hiding all the details of an object that do not contribute to its essential characteristics is called \_\_\_\_\_\_\_\_\_\_\_\_\_  
 data-hiding  
packaging  
encapsulation  
abstraction  
  
 63. Object-oriented technology`s \_\_\_\_\_\_ feature means that a small change in user requirements should not require large changes to be made to the system  
 Abstraction  
Modularity  
Encapsulation  
Modelling  
  
 64. An object has \_\_\_\_\_  
 State  
Behaviour  
Identity  
All of these options  
  
 65. Which of the following is true:  
 Class is an object of an object  
Class is meta class  
Class cannot have zero instances  
None of these options  
  
 66. If a derived class object is explicitly destroyed by applying the delete operator to a base-class pointer to the object, the \_\_\_\_\_ function is automatically called on the object  
 Derived-class destructor  
Base-class destructor  
Base-class constructor  
Derived-class constructor  
  
 67. In object orientated programming a class of objects can \_\_\_\_\_\_\_\_\_\_\_\_\_ properties from another class of objects  
 utilize  
borrow  
inherit  
adapt  
  
 68. Contracts are not meant to be used in cases of \_\_\_\_\_\_\_  
 Composition  
`has-a` relationship  
`is-a` relationship  
Both Composition and `has-a` relationship  
  
 69. Inheritance through interface is called \_\_\_\_\_\_\_\_  
 Implementation inheritance  
Definition inheritance  
Delegation inheritance  
Interface inheritance model  
  
 70. When a class uses dynamic memory, what member functions should be provided by the class?  
 An overloaded assignment operator  
The copy constructor  
A destructor  
All of these options  
  
 71. \_\_\_\_\_\_ means that both the data and the methods which may access it are defined together in the same unit  
 Data hiding  
Encapsulation  
Data Binding  
None of these options  
  
 72. The term given to the process of hiding all the details of an object that do not contribute to its essential characteristics is called \_\_\_\_\_\_\_\_\_\_\_\_\_  
 data-hiding  
packaging  
encapsulation  
grouping  
  
 73. Car contains a steering wheel is example of \_\_\_\_\_\_\_\_  
 Composition  
Association  
Composition and Association  
None of these options  
  
 74. Can two classes contain member functions with the same name?  
 No  
Yes, but only if the two classes have the same name  
Yes, but only if the main program does not declare both kinds  
Yes, this is always allowed  
  
 75. A contract is implemented through  
 Class  
Interface  
Abstract Class  
Interface and Abstract Class  
  
 English Language Ability  
   
 Directions:-  The given pair of words contains a specific relationship to each other. Select the best pair of choices which expresses the same relationship as the given  
  
 76. IGNOMINY : DISLOYALTY ::  
 fame : heroism  
death : victory  
derelict : fool  
martyr : man  
  
 77. EXPLOSION : DEBRIS ::  
 flood : water  
famine : food  
fire : ashes  
disease : germ  
  
 78. Bland : Piquant ::  
 inane : relevant  
charlatan : genuine  
slavish : servile  
terse : serious  
  
 79. NEGLIGENT : REQUIREMENT::  
 remiss : duty  
cogent :argument  
easy : hard  
careful : position  
  
 Directions:-  Choose the best word, which is most opposite in the meaning to the given word  
  
 80. FETTER :  
 delay  
stretch  
comply  
thrive  
  
 CDAC Paper - Part 5  
   
 81. SEDULOUS :  
 rampant  
esoteric  
morose  
indolent  
  
 82. SUCCULENT :  
 ordinary  
tasteless  
inexpensive  
invigorating  
  
 83. DORMANT :  
 authoritative  
elastic  
active  
uninteresting  
  
 84. COURT :  
 reject  
uncover  
infect  
subject  
  
 Directions:- The given pair of words contains a specific relationship to each other. Select the best pair of choices which expresses the same relationship as the given  
  
 85. INTIMIDATE : FEAR ::  
 Maintain : satisfaction  
Astonish : wonder  
Soothe : concern  
Lion : tame  
  
 Directions:- Pick out the best choice which can complete the incomplete stem correctly and meaningfully  
  
 86. It was an extremely pleasant surprise for the hutment-dweller when the Government officials told him that\_\_\_\_\_\_\_\_\_\_  
he had to vacate hutment which he had been unauthorized occupying  
he had been gifted with a furnished apartment in a multistoried building  
he would be arrested for wrongly encroaching on the pavement outside his dwelling  
they would not accede to his request  
  
87. In the closing days of the civil War, President Abraham Lincoln was planning to graciously welcome the defeated confederate states back into the Union. After Lincoln was assassinated, however, the "Radical Republicans" in Congress imposed martial law in the South, creating resentment that caused problems well into this century. Had Lincoln lived, the history of regional conflict in 20th century America would have been considerably different. All of the following assumptions underline the argument above EXCEPT The imposition of martial law in the South was primarily responsible for the resentment felt in the South Had he lived, lincoln would have treated hte defeated South as he had planned Lincoln would have been able to prevent the Radical Republicans in Congress from imposing martial law in the South Factors other than the imposition of martial law in the South affected the history of regional conflicts in 20th century America  
   
 88. A politician wrote the following: "I realize there are shortcomings to the questionaire method. However, since I send a copy of the quetionnaire to every home in the district, I believe the results are quite representative.... I think the numbers received are so large that it is quite accurate even though the survey is not done scientifically" Most people who received the questionnaire have replied Most people in the district live in homes. the questionnaire method of data collection is unscientific A large, absolute number of replies is synonymous with accuracy  
  
89. A worldwide ban on the production of certain ozone-destroying chemicals would provide only an illusion of protection. Quantities of such chemicals, already produced, exist as coolants in millions of refrigerators. When they reach the ozone layer in the atmosphere, their action cannot be halted. So there is no way to prevent these chemicals from damaging the ozone layer further. Which of the following, if true, most seriously weakens the argument above? It is impossible to measure with accuracy the quantity of ozone-destroying chemicals that exist as coolants in refrigerators. In modern societies, refrigeration of food is necessary to prevent unhealthy and potentially life-threatening conditions. Even if people should give up the use of refrigerators, the coolants already in existing refrigerators are a threat to atmospheric ozone. The coolants in refrigerators can be fully recovered at the end of the useful life of the refrigerators and reused  
   
 90. Every town with a pool hall has its share of unsavory characters.This is because the pool hall attracts gamblers and all gamblers are unsavory. Which of the following, if true cannot be inferred from the above?  
 All gamblers are unsavory  
All pool halls attract gamblers  
Every town has unsavory characters  
All gamblers are attracted by pool halls  
  
 Directions:-  The workweek in a small business is a five-day workweek running from Monday through Friday. In each workweek, activities L,M,N,O and P must all be done.The work is subject to the following restrictions:  
  
L must be done earlier in the week than O and earlier than P  
M must be done earlier in the week than N and earlier than O  
No more than one of the activities can ever be done on any one day  
  
 91. Which of the following is an acceptable schedule starting from Monday to Friday?  
 L, M, N, O, P<-------------ans  
 M, N, O, N, M  
O, N, L, P, M  
P, O, L, M, L  
  
 92. In a game, exactly six inverted cups stand side by side in a straight line, and each has exactly one ball hidden under it. The cups are numbered consecutively 1 through 6. Each of the balls is painted a single solid color. The colors of the balls are green, magenta, orange, purple, red, and yellow. The balls have been hidden under the cups in a manner that conforms to the following conditions:  
   
The purple ball must be hidden under a lower-numbered cup than the orange ball.  
The red ball must be hidden under a cup immediately adjacent to the cup under which the magenta ball is hidden.  
The green ball must be hidden under cup 5.  
Which of the following could be the colors of the balls under the cups,in order from 1 through 6?  
Green, yellow, magenta, red, purple, orange  
 Magenta, green, purple, red, orange, yellow Magenta, red, purple, yellow, green, orange<-ans  
 Orange, yellow, red, magenta, green, purple  
  
 Directions:- In a group there are five students coded as P Q R S T.Qand R are intelligent in mathematics and geology. P and R are intelligent in mathematics and hindi. Q and S are intelligent in psychology and buddhist studies. T is intelligent in buddhist studies hindi and psychology  
  
 93. who is intelligent in psychology, geology and buddhist studies  
 Q <-------------ans  
 T  
R  
S  
  
 Directions:-  The following questions are based on the following situations.Asha, Babli, Charn, Deepti, Eira, Farha are cousins. No two cousins are of the same age ,but all have birth days on the same date in that year. The youngest is 17 years old and the oldest is Eira is 22.Farha is somewhere between Babli and Deepti in age.Asha is older than Babli. Charn is older than Deepti  
  
 94. If asha is one year older than charn the number of logically possible orderins of all six cousins by increasing age is  
 2 <-ans (Babli, Asha, Farha, Charn, Deepti, Eira )  
 3  
4  
5  
  
 95. It is easier to swim in the sea water than in river water because sea is vast mass of water sea water is generally calm  
The density of sea water is higher than river water<---------ans  
They water of sea is cool and greenish  
  
 96. starting from a point x jayant walked 15metres towards the west he turned to his left and walked 20 metres he then turned to his left and walked 15 metres he then further turned to his right and walked 12 metres how far is jayant from the point x and in which direction?  
 32 metres south  
47 metres east  
42 metres north  
 27 metres south <-------------ans  
   
 97. Rock and roll music started in the 1950s as a young mans medium and rock is still best performed by men in their twenties and thirties. As rock performers grow into their forties and even fifties, they are simply less physically capable of producing the kind of exciting music they did when they were younger. All of the following assumptions underline the argument above EXCEPT:  
 As rock performers mature, their performances tend to become less exciting  
Rock music is dominated by male performers  
Women performers have always played a significant role in rock music  
 The physical demands of performing rock are better met by the young <-------------ans  
   
 Mathematical Problems  
   
 98. Which of the following statements are true, if x + y + z = 10 y >= 5 and 4 >= z >= 3  
   
1. x < z  
2. x > y  
  
3. x + z <= y  
1 only  
2 only  
3 only  
 1 and 3 only <-------------ans  
   
99. The solution of the equation 4 - 5(2y + 4) = 4 is  
-2/5  
8  
4  
 -2 <-------------ans  
   
 100. When x5 + 1 is divided by (x - 2), the remainder is  
 15  
17  
31  
33  
  
 CDAC Paper - Part 6  
   
101. How many terms of the series -9 , -6 , -3 ,.........must be taken such that the sum may be 66?  
11  
13  
 9 <-------------ans  
 10  
  
102. The side of a rectangle are whole numbers. What must their lengths be for the perimeter for the rectangle to be numerically equal to its area?  
3 and 6  
4 and 5  
4 and 6  
5 and 5  
  
103. A path 7 metres wide surrounds a circular lawn whose diameter is 252m.What is the area of path?  
5698 sq.mtrs.  
5000 sq.mtrs.  
5500 sq.mtrs.  
None of these  
  
 104. If the negative of the sum of two consecutive odd numbers is less than -35, which of the following may be one of the numbers?  
 18 <-------------ans  
 16  
15  
13  
  
 105. What is the perimeter of a rectangle that is twice as long as it is wide and has the same area as a circle of diameter 8?  
 8(P)1/2  
8P  
12(2P)1/2  
12P  
  
 106. Towns A and C are connected by a straight highway which is 60 miles long. The straight line distance between town A and town B is 50 miles, and the straight line distance from town B to town C is 50 miles. How many miles is it from town B to the point on the highway connecting town A and C which is closest to town B?  
 30  
40  
50  
60  
  
 108. A batsman played 17 innings during a season and he was not out. The score of 85 improves his average by 3 runs in the 17th innings. His average score after 16th innings is  
 37  
35  
34  
36  
  
 109. If paper costs 1 paisa per sheet, and a buyer gets a 2% discount on all the paper he buys after the first 1000 sheets, how much will it costs to buy 5000 sheets of paper?  
 Rs 49.30  
Rs 50.00  
Rs 39.20  
Rs 49.20  
  
 110. The income of a broker remains unchanged though the rate of commission is increased from 4% to 5%. The percentage of slump in business is 8%  
 1%  
20%  
80%  
  
 111. There are 4 quarts in a gallon. A gallon of motor oil sells for Rs.12 and a quart of the same oil sells for Rs.5. The owner of a rental agency has 6 machines and each machine needs 5 quarts of oil. What is the minimum amount of money she must spend to purchase enough oil ?  
 Rs.84  
Rs.94  
Rs.96  
Rs.102  
  
 112. A truck departed from Newton at 11:53a.m. and arrived in Far City,240 miles away, at 4:41 p.m. on the same day. What was the approximate average speed of the truck on this trip?  
 16/1,200 MPH  
40/288 MPH  
1,494/240 MPH  
50 MPH  
  
 113. A girl rode her bicycle from home to school, a distance of 15 miles, at an average speed of 15 miles per hour. She returned home from school by walking at an average speed of 5 miles per hour. What was her average speed for the round trip if she took the same route in both directions?  
 7.5 miles per hour  
10 miles per hour  
12.5 miles per hour  
13 miles per hour  
  
 114. A is thrice as good a workman as B. If the time taken by B to do piece of works exceeds that taken by A by 8 days. In how many days A does the work.  
 8  
4  
12  
10  
  
 115. The population of a town was 54,000 in the last census. It has increased 2/3 since then. Its present population is  
 18,000  
36,000  
72,000  
90,000  
  
 116. One hundred job applicants show up in response to a classified ad.If 60 percent of them are female and if 3/4 of the female applicants are willing to relocate if the job demands it, how many are not willing to relocate?  
 55  
45  
15  
It cannot be determined from the information given  
  
 117. Mr. Smith drove at an average speed of 50mph for the first two hours of his trip. For the next three hours, he averaged 20 mph. What was Mr. Smith`s average speed for the five-hour trip ?  
 20 mph  
32 mph  
35 mph  
38 mph  
  
 118. A postal truck leaves its station and heads for Chicago, averaging 40mph. An error in the mailing schedule is spotted and 24 minutes after the truck leaves, a car is sent to overtake the truck. If the car averages 50mph, how long will it take to catch the postal truck?  
 1.6 hours  
3 hours  
2 hours  
1.5 hours  
  
 119. The length breadth and height of a cuboid are in the ratio 1 : 2 :3. The length, breadth and height of the cuboid are increased by 100%, 200% and 200% respectively. Then the increase in the volume of the cuboid is  
 5 times  
6 times  
12 times  
17 times  
  
 120. An Automobile covers the distance between two cities at a speed of 60km. per hour and on the return journey it covers at a speed of 40 km. per hour. Find the average speed.  
 60  
50  
48  
55  
  
 121. A man buys 200 shares (par value of Rs.10) of a company, which pays 12% per annum as dividend, at such a price he gets 15% on his money. Find the market value(app.) of a share.  
 Rs. 9  
Rs. 12  
Rs. 8  
Rs. 7.50  
  
 122. An old picture has dimensions 33 inches by 24 inches. What one length must be cut from each dimension so that the ratio of the shorter side to the longer side is 2:3?  
 2 inches  
6 inches  
9 inches  
10 1/2 inches  
  
 123. Hiralal earned a profit of Rs. 300 by selling 100 kg of mixture of A and B types of rice at a total price of Rs. 1100. What was the proportion of A and B types of rice in the mixture if the cost prices of A and B types of rice are Rs. 10 and Rs. 5 per kg respectively ?  
 3 : 2  
2 : 5  
2 : 773  
5 : 2  
  
 124. A fraction has a value of 2/5. If the numerator is decreased by 2 and the denominator increased by 1, then the resulting fraction is 1/4.What is the value of the numerator of the original fraction ?  
 5  
6  
7  
8