

*****GSSSL***** I SUPPOSE*****

1) YOU SHOULD LEARN POINTERS(they may ask in I.W)
 2)****SHOULD LEARN C++(this is very very IMP,Based
 on this only I got job.One more thing is
 CLASS,INHERATENCI&POLYMORPHISM is sufficient)
 3)YOU SHOULD PREPARE ONE FEM PROJECT AND TELL THEM
 THAT AS YOUR OWN WORK(This will increase chance
 to 99%)
 EASI-TECH
 WRITTEN TEST PATTERN

 1] C TEST 10Q 20MINUITS
 2]F E M TEST 19Q 20MINUITS
 3]APTITUDE TEST 15Q 20MINUITS

F E M TEST

1)WHO USED THE TERM FINITE ELEMENT FOR THE FIRST TIME?
 a)
 b)
 c) CLOUGH
 2)DERIVE THE JACOBIEN $|J|$ FOR BEAM ELEMENT WITH STRAIN
 ENERGY?
 (ANS:PROMLEM IS NOT CORRECT PLEASE DO NOT ATTEMPT)
 3)FOR AN ELEMENT $\sigma_{Ni}=1$,WHICH TYPE OF ELEMENT IT IS?
 a)
 b)NATURAL CO-ORDINATE
 (ANS 100% CORRECT)
 4)TIMOSHENKO BEAM ELEMENT THEORY TO CONSIDER - - - -?
 a)
 b)
 c)SHEAR DEFORMATION
 5)SHEAR LOCKING - - - - ?
 (ANS IS VERY STIFF 'K')
 6)MEMBRANE LOCKING
 (ANS IS ARCH ELEMENT)
 7) $E_x(\text{epsiolan } x)=dU/dX, E_y=dV/dY, r(X, Y)=?(\text{gama}(x,y)=?)$
 (ANS IS $dU/dY+dV/dX$)
 8) $K=\text{integral } B(\text{TRANPOSE})^T D^T B$ FOR LARGE DEFORMATION
 WHICH MATRIX WILL GET EFFECTED?
 (ANS IS D matrix)100%correct
 9)FOR PLANE STRAIN $f(E_x, E_y, E_z, r(x,y))$ - - -
 (ANS IS $E_z=0$)
 10)SERENDIPITY ELEMENT IS
 (ANS 8 NODDED ELEMENT)
 (The element which is having nodes only on boundary is
 called SERENDIPITY element)
 11)IF THE ROTATION OF ELEMENT AND THE DISPLACEMENT ABOUT
 N-A IS SAME THEN THE ORDER OF CONTINUITY
 (ANS IS C1)

- 12)FRONTAL THEORY IS APPLIED FOR
(Please refer any fem book)
- 13)MINDLINS THEORY IS APPLIED FOR
c) this is the answer(Both Co&C1problems)
- 14) $X = \sigma_{Ni} \cdot X_i$, $U = \sigma_{Ni} \cdot U_i$ WHICH TYPE OF ELEMENT
(Refer book)
- 15)BEAM SUBJECTED TO UDL FIND THE MOMENTS AT THE
2 NODES
- 16) $\int B(\text{Transpose}) \cdot \sigma$ (here sigma means stress) $\cdot dV$
REPRESENTS?
(ANS IS INTERNAL LOAD VECTOR)
- 17) $\int E(\epsilon \text{ transpose}) \cdot \sigma \cdot dV$
P=strain displacement vector
Q=stress-strain deformation
Find [K]
(ANS $[K] = [P]^T (P \text{ transpose}) \cdot [Q] \cdot [P]$)
- 18)
- 19)

REMEMBER ORDER MAY NOT BE CORRECT

APTITUDE TEST

- 1) $33 \frac{1}{3}$ of 101 + 296 is
(ans 1200) check
- 2) $0.625 = ?$ (ans $\frac{27}{40}$)
- 3) One ship goes along the stream direction 28 km and in opposite direction 13 km in 5 hrs for each direction. What is the velocity of stream?
(ans 1.5 kmph)
- 4) Cubic root of 3375=?
(ans 15)
- 5) $2020201 - 565656 = ?$
(ans 1454545)
- 6) CHAIRS PROBLEM
5 chairs=9 tables, 12 tables = 7 stools likethat- - -
(ans is 80Rs)
- 7) One clock ringes 7 O' clock in 7 sec. In how many seconds it will ring 10 O' clock.
(ans 10.5 sec)
- 8) One watch is showing 30 past 3 .What is the angle between minutes & hours hand?
(ans 75 degrees)
- 9) The average of 4 consecutive even numbers is 27. What is the largest number?
(ans 30)
- 10) 25 stations ,24 stations are inbetween- - - -
how many tickets should be required.
(ans $25 \cdot 24 = 600$)
- PUZZLES TO PUZZLE YOU "S.DEVI"PROB 24
- 11) One ball was dropped from 8ft height and every time it goes half of the height. How much distance it will travell before coming to rest.

(ans 24 approximately)

12) Two trains are travelling at equilateral. Train A is travelling in the direction of earth's spin. Other train B is travelling in opposite direction of earth's spin. Which train's wheels will wear first? and why?

(ans TRAIN B. Because of less centrifugal force.)

OK HARI 3 MORE QUES ARE THERE. I HOPE YOU CAN SOLVE EASILY. NOW I have only 3 C ques. I am sending them in immediate mail. Any when I will try to send remaining 7 C ques before 20th.

C QUESTIONS: WHAT IS THE OUTPUT FOR FOLLOWING PROGRAMS

```
1)main()
{
char a[2];
*a[0]=7;
*a[1]=5;
printf("%d\n",&a[1]-a[0]);
ANS:
```

ans may be 1. (illegal initialization)

```
2)
#include<stdio.h>
main()
{
char a[]="hellow";
char *b="hellow";
char c[5]="hellow";
printf("%s %s %s\n",a,b,c);
printf("%d %d %d\n",sizeof(a),sizeof(b),sizeof(c));
}
```

(ans is hellow,hellow,hellow
6,2,5)

```
3)
#include<stdio.h>
main()
{
float value=10.00;
```

```
printf("%g %0.2g %0.4g %f\n",value,value,value,value);
}
```

(ans is 10,10,10,10.000000)

```
4)
#include<stdio.h>
void function1();
int i=100;
main()
{
i=50;
function1();
}
```

```
printf(&quot;i-value in the function=&quot;,i-value);  
printf(&quot;i-value after the function=&quot;,i-value);  
}  
printf(&quot;i-value at the end of main=&quot;,i-value);  
functioni()  
i-value=25;
```

THIS IS ROUGH IDEA OF THE PROGRAM
ANS ARE

- 1)i-value in the function=25;
- 2)i-value after the function=50;
- 3)i-value at the end of the main=100;

```
5)  
main()  
{  
func(int n);  
{  
switch(n)  
case1:  
m=2;  
break;  
case2:  
m=5;  
break;  
case3:  
m=7;  
break;  
default:  
m=0;  
}
```

THIS IS ROUGH IDEA:
(ANS:Out put is m=0)

REMAINING 5 PROGRAMS SOME WHAT LARGE AND COMPLICATED.