(PAPER) ISRO Model Interview Pattern

ISRO Model Interview

Hope you all have started the planning for the DRDO test. This is a golden opportunity to clear the test. Why? You have all the resources and books in your hand. Any way many of you have asked how to apply for ISRO? Organizations like ISRO, VSSC etc don?t conduct tests as DRDO do. They give ad in newspaper. They short list based on the percentage and call for interview. Or they directly go to the premier institutes and recruit directly from there.
I am giving a pattern of questions asked for an ECE guy in ISRO-SAC interview. Once again I have to stress that if ur basics are strong you will get thru the interview. Now from very long time I am telling learn the basics. What are the basics?

Here are examples:
1. In radar we may know how a CW radar works and what are its applications. That?s not enough! You should know why the CW can be used in those applications and what types of radar can be used in those applications other than CW radar.
2. In digital we know how to reduce a Boolean expression using K-map. But do you know difference between looping 1s and 0s in K-map? Do you know there is a limitation in Kmap? Do you know any other method to reduce the expressions? Is there any limitation for that?
3. In mechanical we have heard a lot about 100cc or 150 cc bikes. What actually cc here means? Is there any relationship with that with performance if so how and why?
Is there any 100% efficient Carnot cycle? Why?
4. In electrical we have heard a lot about transmission loss why it is caused? Can we prevent it ?
5. In Computer you know methods of sorting? Which is the most efficient and why?
6. In Physics do you know what is the cause of hall effect?

Now have a first hand experience of an ISRO interview.

SAC (Ahmedabad) panel comprised of 6 members, very senior scientists. They asked about B.E project, subject questions were picked up from the B.E project. Like if your project is on Commn, they asked questions from Commn.
At NIT, Trichy ISRO dropped in for campus recruitment, panel members were from ISRO Trivandrum and ISRO Bangalore with some 20 years of experience in ISRO.

3 people on the whole were in the panel. 1 was an expert in microwaves another person in DSP, Digital Commn, VLSI, third person was chairman, I believe

They first made the usual formalities like doc verification and the usual questions like Did u appear for GATE? How did u come 2 NIT, Trichy for PG (GATE / NON GATE)?? What was your rank in the entrance test conducted by NITT to get in for PG?

Then they asked abt my M.E project. Here at NITT, we have phase-1 project and phase-2 project at 3rd and 4th semester course.

So i told that I am working with IP over WDM networks. They asked me from WDM technology, to compare microwave and fiber optics, guided and unguided commn differences? WDM components, about IPv6.

2nd member asked me from microwaves. Some questions raised by him

- Eqvt ckt of transmission line and explain all the primary and secondary constants?

- losses associated with transmission line

-antenna gain, isotropic antenna?, antenna applns at different freq

-microwave sources - klystron, magnetron etc.

3rd member asked me from digital commn

- Sampling theorem, aliasing effects, digital modulation (compare BPSK and BFSK), what is FFSK?, line coding (compare Manchester and NRZ scheme), turbo codes??, trellis coded modulation??, advantage of cyclic codes

some questions from spread spectrum also - like how anti jamming is achieved??

Altogether only basic fundas here also. Confidence is the key and it's better to have a firm grasp on the subjects related to project.

Since the panel members were old people, questions from microwaves, antennas, trans lines are sure to come forth.

In fact questions from microwave engineering, antennas and transmission lines were asked for all people.

(PAPER) ISRO Sample Paper Pattern

ISRO Sample Papers

1.

The minimum number of edges in a connected cyclic graph on n vertices is
a) n-1 b) n c) n+1 d)none of these
2.

A full binary tree with n non leaf nodes contains
a) n nodes b) log n nodes c)2n-1 nodes d)2n nodes
3.

The time complexity of shell sort
a) O(n) b) O(log n) c) O(n 1.2) d)O(n2)
4.

The time taken to insert an element after an element pointed by some pointer
a) O(1) b) O(log n) c) O(n) d) O(nlogn)
5.

what is the name given to the first generation computer?
a) Binary language b)Machine language c)Assembly language
6.

The root directory of a disk should be placed
a) at a fixed address in main memory
b) at a fixed location on disk
c) anywhere on disk.
7.

A top down parser generates
a) right most derivation
b) left most derivation
c) right most derivation in reverse
d) left most derivation in reverse
8.

what is the name of the OS that reads and reacts in terms of actual time?
a)batch system
b)time sharing
c)real time
9.

FDDI is a
a)ring network
b)star network
c)mesh network
10.

Computer memory consists of
a)ROM
b)PROM
c)RAM
d)all the above
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ISRO Sample Question

1. The root directory of disk should be placed at____

2. DNS is basically used to _____

3. one more ques on DNS

4. abt TCP and UDP

5. TCP's which layer is there for the OSI's first three layers.

6. Multiprocessing models have--- a)symmetric

b)unsymmetric models

c)none of the above

d) both

7. BCDhave binary nos in a)bis

b) bytes

c)nibble

8. Top-down parser ....
a) leftmost derivation
b)rightmost derivation
c)leftmost derivation in reverse
d)rightmost derivation in reverse

9. Loop which avoids check at every iteration
a) loop controlling

b) loop jamming

10. one tree was given and some expressions were there and we have to find the correct postfix exprn
11. abt logic gates

12. worst case of Shell sort

13. sine wave can be split into
a)set of sine waves
b)set of sine waves with phase zero

14. Full binary tree with n vertices has how many leaf nodes somethng like this...

15. Complete graph with n vertices and somethng

16. in a cyclic graph with n vertices how many minimum edges
a)n
b)n/2...