

Sample Redpine Signals Written Test Paper

Q1. Aptitude

Q2. C aptitude Questions (very easy you can easily crack those)

Q3. OS basic commands Q1. How will you copy all files in one directory (which consists of sub-directories also) to another directory.

ANS: `cp -R dir1 dir2`

Q4. General Knowledge Questions

Q1. Bucket word used in which Sport?

Q2. What is the tata company JLR?

ANS: Jarguon Land Rover

Q3. What is LTE?

ANS: Long Term Evaluation (4G Technology)

FIRST TECHNICAL ROUND: Questions on C programming :

Q1. Explain about storage classes in C?

Q2. What is the use of header file?

Q3. One variable defined in one file and if u want to use that variable in two or more files what will you do?

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Q4. Output of the following c code

```
Struct node { int a; char b[]; }; Void main() { Struct node var; Printf(sizeof structure=%d ,sizeof(var)); }
```

ANS: Error

Q5. Explain dynamic memory allocation? What is the difference between malloc() and calloc()?

Q6. What is function pointer? declare function pointer to function which accepts two integers and returns float ? practical use of function pointer?

Q7. Write a program to find the position of first non-zero bit?

Q8. Where local , static and global variables stored in the primary memory?

Questions on operating system:

Q1. what is semaphore and binary semaphore?

Q2. What is API? how system call works?

Q3. Explain about IPC techniques?

Q4. What will happen when Interrupt occur?

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Q5. How interrupt handles in OS?

Q6. Explain open() system call and file descriptor?

Q7. What is preemptive and Non-preemptive scheduling ?

Q8. Explain Dead lock conditions

Q9. What is ISR?

Q10. What is Virtual memory and Physical Memory?

SECOND TECHNICAL ROUND Questions on Embedded Systems :

Q1. Tell me about yourself

Q2. What is Embedded system?

Q3. Difference between Embedded and Non Embedded Systems?

Q4. Draw Block diagram of Embedded system and Explain Each component present in the embedded system.

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Q5. Explain about SPI and I2C Protocols and what is the difference between them? And where they used in practical?

Q6. Explain about UART Interface and what is the speed of UART?

Q7. Which has the fast data rate among UART, USB, SPI and I2C ?

Q8. What is RTOS?

Q9. Explain about Soft real time system and Hard Real Time system?

Q10. Explain About LINUX Device Drivers.

Q11. Explain Vector Project In Detail

Questions on NETWORKING:

Q1. Explain about OSI reference Model and Explain Each Layer in it?

Q2. Why TCP/IP called so instead of calling TCP and IP individually?

Q3. Explain TCP/IP reference Model? Explain about Each Layer?

Q4. What is Protocol?

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Q5. What is SMTP protocol and where it is Present?

Q6. Difference between TCP and UDP?

Q7. Where IP protocol Present?

Q8. What is MAC Address how many bits it is?

Q9. In which Layer MAC address Present?