

**INSTITUTO TECNOLÓGICO SUPERIOR DE APATZINGÁN**



GUÍA PARA LA PRESENTACIÓN DEL

EXAMEN DE ACREDITACIÓN

DEL REQUISITO DE COMPRENSIÓN DE

ARTÍCULOS TÉCNICO-CIENTIFICOS

EN EL IDIOMA INGLÉS PARA LA

OBTENCIÓN DEL TÍTULO

PROFESIONAL.

Solicitante:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.

Fecha de examen: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.

Hora: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_. Aula:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.

Fecha de resultados: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_. Correo electrónico: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**R**ecuerda que no existe una fórmula mágica que garantice la acreditación del examen, pero algunos puntos que te ayudaran, es el estar bien informado sobre este proceso y conocer algunos *tips* para un mejor desempeño:

**Se sugiere:**

* Tener conocimientos básicos de inglés.
* Tener práctica en lecturas en el idioma inglés, enfocadas a tu área de especialidad.
* Familiarizarte con verbos y vocabulario de diversos temas actuales (enfocado a tu carrera)
* Ensayar con exámenes prototipo disponibles en el Centro de Idiomas, probando diferentes estrategias de solución al examen, para identificar la que te resulte mejor de manera personal.
* Prepararte con tiempo, para que incrementes tus habilidades.

**REQUISITOS PARA TENER DERECHO A LA PRESENTACIÓN DEL EXAMEN**

1. Se recomienda haber aprobado un mínimo del 50% de los créditos de la carrera.
2. Haber entregado recibo de pago, solicitud del examen y copia en el Centro de Idiomas (ubicado en el Edif. “Raúl Martínez Cruz”), por lo menos una semana antes de la fecha de la aplicación del examen.
3. Presentarse puntualmente al examen en la fecha publicada previamente. *(Por ningún motivo se aplicará extemporáneamente)*
4. Identificarse al entrar al salón, presentando su credencial de elector o credencial del último semestre cursado del Instituto Tecnológico del cual provenga. *(Si quien se presenta el día del examen no es claramente identificado, no tiene derecho a presentar examen).* Adicionalmente un profesor de tu carrera te identificará personalmente.
5. Traer lapicero tinta negra o azul, lápiz, goma y sacapuntas.
6. No usar celulares, Tablets, etc., durante el examen.
7. No usar ningún material de consulta, durante el examen.
8. No salir del aula, una vez iniciado el examen.

**PROCEDIMIENTO PARA REALIZAR TU EXAMEN**

El tiempo para la aplicación del examen es de **dos horas** por lo que se te **sugiere** lo siguiente:

1. Al recibir el examen, deberás **ESCRIBIR** tu nombre, así como F**IRMAR**, en los espacios correspondientes, utilizando lapicero de tinta negra o azul.
2. Leer el correspondiente artículo técnico-científico redactado en inglés, que deberá tener un mínimo de 800 y un máximo de 1200 palabras.
3. **DAR RESPUESTA** a un conjunto de **10 reactivos** de opción múltiple, redactados en inglés. Cada reactivo tiene 3 opciones, de las cuáles, la que conteste mejor, de acuerdo al artículo leído, será la única correcta. Las opciones restantes serán incorrectas. Las respuestas deben señalarse claramente, utilizando lapicero tinta negra o azul. Si algún reactivo no tiene la respuesta claramente marcada con lapicero, o están marcadas más de una, dicho reactivo será tomado como incorrecto. La parte de reactivos tiene un valor de ***60/100.***
4. **ELABORAR** el resumen EN ESPAÑOL con una extensión mínima de una cuartilla (26 renglones), con una valor de ***40/100*** en el cual deberás tomar en cuenta los siguientes aspectos:

* Incluir todas las ideas principales esto con el fin de que no dejes fuera de tu resumen las ideas más importantes del artículo.
* Tener precisión de ideas. Para evaluar la exactitud con que expresas las ideas del resumen, con respecto a lo que expresa el autor del artículo.
* Redacción propia. En el se evalúa que el resumen tenga tu estilo propio de redacción, pero que no incluyas tus opiniones personales, ni hagas una simple traducción de lo leído. Debes demostrar que entendiste el artículo, identificando los aspectos más importantes del mismo y resumiéndolo con tus propias palabras.
* Ilación de ideas. En el se evalúa la relación entre las ideas expresadas. Es decir, una idea debe guardar relación con la que le sigue. Debe haber una secuencia lógica de ideas a lo largo del resumen. Si solo hay ideas aisladas, este aspecto no se cumple.

El orden de los pasos puede cambiar, de acuerdo a lo que tú creas que te da más probabilidades de un mejor resultado.

**EVALUACIÓN Y CALIFICACIÓN DEL EXAMEN.**

* La **evaluación** del examen estará a cargo de un jurado, compuesto por 2 sinodales, un sinodal del Centro de Idiomas y un sinodal asignado de tu academia que cuente con conocimientos de Inglés.
* El **tiempo** para entregar **resultados** será de un máximo de 5 días posteriores a la fecha de aplicación.
* Se le entregara al solicitante **hoja de resultados**, en la cual constara su calificación *APROBATORIA (mínima de 70%)*  o *NO APROBATORIA,* además el jurado anotara las observaciones del porque del resultado*.* Mismas que ayudaran al alumno no acreditado a conocer los aspectos a mejorar para próximas aplicaciones.
* La **calificación** correspondiente **se asentará en acta firmada por ambos, y será inapelable, de acuerdo al artículo 1.2.6.7 del manual de procedimientos** para la acreditación del requisito de comprensión de artículos técnico-científicos en el idioma inglés, para la obtención del título profesional.

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.Wi-Fi Radio Takes

a Digital Turn

Intel’s new transceiver pushes RF circuitry further into

the digital realm, but will it make it out of the lab?

Are analog circuits on their way out? Granted, nature is analog and so, too, are the circuits that drive wireless communication. But analog devices are generally harder to miniaturize and have slowly been ceding ground to digital components. An experimental new radio chip developed by Intel could signal that the trend is accelerating.

The new radio, a Wi-Fi transceiver that Intel says is constructed mostly of digital components, debuted in September at the company’s annual developer forum in San Francisco. Intel calls the technology a “Moore’s Law radio,” for its potential to take advantage of digital circuitry’s famed miniaturization trend.

Ultimately, the technology could lead to smaller, slimmer portable devices, by integrating a smartphone’s radios and processors on a single sliver of silicon. But when that will happen and what sort of impact it will have on products is still unclear. There’s good reason why this chipmaker’s fantasy of an essentially single-chip smartphone has yet to be realized.

Radio-frequency circuits are especially sensitive to design changes, and the properties of analog components like inductors don’t improve as the devices get smaller. As a result, analog chips tend to lag behind their all-digital counterparts by a couple of manufacturing-process generations, which means that their features are much less fine. Transforming analog radios—or at least some of their components— into digital radios could potentially bridge that gap. And over the years, digital circuits have taken over a bit more of the analog realm. The poster child for this trend is the phase-locked loop, a core signal-processing circuit that is now constructed from digital components.

To make its Wi-Fi transceiver, Intel says it had to go back to the basic mathematics of radio communications. “It’s not just a replacement of analog components,” says Yorgos Palaskas, who leads Intel’s radio integration lab. “It has to be done differently.” In the transmitter, for example, information that might otherwise be processed as RF signals is kept in the digital domain until the signal is amplified and goes out on the airwaves. Information on the intended amplitude of the signal is encoded in the timing of when the digital signal switches between 0 and 1

Intel’s new Wi-Fi radio isn’t entirely digital yet. Some components are still analog. The design also isn’t optimized for area and consumes a little more power than a comparable analog transceiver might. “But the important point about the digital architecture is that it will scale moving forward,” Palaskas says. The radios “will get better and better with every single generation.” At Intel’s developer forum, he noted that a jump from a 90- to a 32-nanometer manufacturing process reduced one transceiver component—a frequency synthesizer—to a quarter of its size while cutting the power consumption from 50 milliwatts to 21 Mw.

Intel made an impression when it presented details on core components of the radio at the IEEE International Solid-State Circuits Conference earlier this year. “There’s no question from a technical standpoint that they’re very novel,” says IEEE Fellow Robert Staszewski, an associate professor at the Delft University of Technology, in the Netherlands. Staszewski was previously chief technology officer of Texas Instruments’ Digital RF Processor Group, which developed digital radio components that could be integrated with basic cellphone processors.

Intel’s radio could potentially play well alongside the more advanced digital processors for today’s smartphones. The company previously demonstrated a chip code named Rosepoint, with two Atom cores and a Wi-Fi radio with more analog components than the one presented in September. But such integration might not be in the digital radio’s immediate future. Intel CTO Justin Rattner says the new radio technology may first emerge piecemeal in future radio chips. Bringing processors with full digital radios to the market may have more to do with economics than technology. Initial development costs could be higher, and RF standards are less forgiving when it comes

to inevitable variations in manufacturing, says Waleed Khalil, an assistant professor of electrical and computer engineering at Ohio State University. Digital processors that underperform can be set aside and sold for less. But with RF, if you have “a very small degradation in performance, nobody will buy your products,” Khalil says. Consumers may have to pay a considerable premium for more tightly integrated chips. At the same time, analog radios are still very much in the running, says Mark Hung, a research director at Gartner. Although analog design takes longer, he says, so far chipmakers have “always been able to come up with new tricks to get it to scale.” Still, Staszewski says Intel’s entrance into digital radio could very well inspire a change in the industry.

Both analog and digital designers tend to stay firmly committed to their respective camps, he says, and so the industry has just been inching its way toward digitization. “I think Intel is the proverbial 800-pound gorilla,” he says. Sometimes when a giant starts doing something, he says, “then everybody will follow suit.”

—Rachel Courtland

**TEST QUESTIONNAIRE FOR THE DIGITAL TURN ISSUE**

**INSTRUCTIONS:** Choose the correct option that completes the sentence given or answers the questions.

1. \_\_\_\_\_\_\_\_\_\_\_\_\_\_devices are generally harder to miniaturize and have slowly been ceding ground to digital components.
2. ***Digital***
3. ***Analog***
4. ***Wi- Fi transceiver***
5. Why does Intel call the Wi-Fi transceiver a “Moore’s Law radio” ?
6. ***Because Intel says it is constructed mostly of digital components***
7. ***It debuted in September at the company`s annual developer forum.***
8. ***For its potential to take advantage of digital circuitry’s famed miniaturization trend.***
9. In the transmitter, information that might otherwise be processed as RF signals is kept in the digital domain until the signal is amplified and goes out on the airwaves. Information on the intended amplitude of the signal is encoded in the timing of when the digital signal switches between \_\_\_\_\_\_\_\_\_\_\_\_\_.
10. ***Zero and One***
11. ***One and Nine***
12. ***Minus zero and One***
13. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_are especially sensitive to design changes, and the properties of analog components like inductors don’t improve as the devices get smaller.
14. ***Processors***
15. ***Radio-frequency circuits***
16. ***Smart phones***
17. What did Intel have to do in order of making its Wi-Fi transceiver?
18. ***Intel Went back to the basic math of radio communications***
19. ***Intel said that it wasn`t just a replacement of analog components.***
20. ***Yorgos Palaskas leaded Intel`s radio integration lab.***
21. Is Intel’s new Wi-Fi radio entirely digital?
22. **No, some components are still *Wireless***
23. **No, some components are still *analog***
24. **Yes. All the components are digital.**
25. What was presented at the *IEEE International Solid-State Circuits Conference* by Intel?
26. ***A digital architecture***
27. **Details on core components of the radio**
28. ***How to make a Wi-Fi radio***
29. Texas Instruments’ Digital RF Processor Group previously developed digital radio components that could be integrated\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.
30. ***With* basic cellphone processors**
31. ***For* basic cellphone processors**
32. ***That* basic cellphone processors**
33. Intel`s company previously demonstrated a \_\_\_\_\_\_\_\_\_\_ named *Rosepoint*, with two Atom cores and a Wi-Fi radio with more analog components than the one presented in September
34. ***Chip code***
35. ***Radio***
36. ***Smartphone***
37. Both analog and digital designers tend to stay firmly committed to their respective camps, and so the industry has just been inching its way toward \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.
38. ***Digitization***
39. ***Digital***
40. ***Digitalized***

**A DIGITAL TURN**

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