



REVISTA

MAGAZINE MAY 2019

DEPARTMENT OF INFORMATION TECHNOLOGY

HINDUSTHAN

College of Engineering and Technology

Shri.T.S.R.Khannaiyann
Chairman
Hindusthan Educational and Charitable Trust
Coimbatore.



MESSAGE

REVISTA'18 is an innovative piece, which showcases the hard work put in by the editorial board. I appreciate the efforts of the editorial team who have done an excellent job in compiling REVISTA'18 activities over the year and disseminate them through this magazine. I wish them all success for their future endeavor.

A handwritten signature in green ink that reads "Thiru T.S.R. Khannaiyan". The signature is written in a cursive style.

THIRU T.S.R.KHANNAIYAN
(CHAIRMAN)

Smt.Sarasuwathi Khannaiyann

Secretary

Hindusthan Educational and Charitable Trust

Coimbatore - 641032



MESSAGE

“Education is simply the soul of the society as it's passes from one generation to another”

-G.K.Chesterson

Engineers play the most vital and important role in nation building. They create new inventions using best engineered technologies to make human life more comfortable, secure and productive. We have excellent potential to grow in diversified areas and excel in Engineering and Management fields. We need enormous number of engineers and managers to write next story of success.

At the outset I send my greetings to the Editorial Board of REVISTA' 18, for working on a Magazine best in all aspects. I believe this magazine will provide us the benchmark for continued improvement in overall development of the College.

A handwritten signature in blue ink that reads "Mrs. Sarasuwathi Khannaiyann".

MRS.SARASUWATHI KHANNAIYANN
(SECRETARY)

Mrs. Priya Sathish Prabhu
Joint Secretary
Hindusthan Educational and Charitable Trust
Coimbatore – 641032



MESSAGE

“Education is the most powerful weapon which you can use to change the world”

-Nelson Mandela.

REVISTA'18 is an excellent piece of publication that demonstrates the literary, art and imaginative skills of our students. It is always inspiring to read through the pages of the magazine and see such talented academics pushing the boundaries of discovery. Congratulations to the entire team!

A handwritten signature in black ink, appearing to be 'Priya Sathish Prabhu', written in a cursive style.

MRS.PRIYA SATHISH PRABHU
(JOINT SECRETARY)

Dr.T.Kannadasan
Principal
Hindussthan college of Engineering and Technology
Coimbatore – 641032



MESSAGE

It gives me immense pleasure to pen a few words as prologue to our in-house magazine 'REVISTA 18' exclusively meant for churning out the latent writing talent which bears immense potentiality of sharpening your communication skill as part of your overall personality development. I congratulate all the contributors and the editorial board for bringing out such a beautiful magazine.

I am confident that 'REVISTA 18' would turn out to be a real trend-setter in surfacing and kindling in young ITians.

IT is Imminent, IT is Real

A handwritten signature in blue ink, consisting of a series of loops and a horizontal line at the end.

DR.T.KANNADASAN
(PRINCIPAL)

Dr.S. SARAVANASUNDARAM
Professor & Head
Department of Information Technology
Hindusthan College of Engineering and Technology
Coimbatore – 641032



MESSAGE

I am very much delighted and happy that our department is releasing the 'REVISTA 18'. It ignites fresh enthusiasm of the creative skills over the students of our department and fulfills their expectations. I would like to thank everyone for their active support to release this magazine. I extend my warm greeting to all the participants and organizers of the 'REVISTA 18' and your support will encourage us to release the issue every year.

Wishing you all the best...!

A handwritten signature in blue ink, appearing to be 'S. Saravanasundaram', written in a cursive style.

DR.S. SARAVANASUNDARAM
PROFESSOR & HEAD

Mrs. P. Revathi
Assistant Professor
Department of Information Technology
Hindusthan College of Engineering and Technology
Coimbatore – 641032



MESSAGE

It gives me immense pleasure that our department is releasing the REVISTA'18. It grabs out the creative skills over the students of our department. Guided by our pillars of support, our faculty members, we got the magazine done with all its formalities and informalities. I have to thank all our student editors here for their continuous support throughout this magazine's creation. It's been a journey, a journey that taught us many lessons and provided us with quite a bit of entertainment as well.

A small rectangular image showing the handwritten signature of P. Revathi in black ink on a white background.

MS.P.REVATHI
AP/IT

VISION OF THE DEPARTMENT

- To develop IT Professionals of the best caliber with Entrepreneurship Zeal.

MISSION OF DEPARTMENT

- To establish a best Learning Environment that helps the Students to face the Challenges of IT field.
- To enable the Students to develop Skills for solving Technical Problems and also endorse Collaborative and Multidisciplinary activities.
- To induce Entrepreneurial mindset amongst Students and develop the necessary Skills to meet the Entrepreneurial needs of the Society.

PROGRAM EDUCATIONAL OBJECTIVES (PEOs)

- **PEO1:** Graduates of the program will be proficient in identifying, formulating and solving complex problems by applying their knowledge of mathematics, science and information technology principles.
- **PEO2:** Graduates of the program will be capable of analyzing, designing, implementing and managing software projects through continuous learning and use modern tools to meet real world constraints.
- **PEO3:** Graduates of the program exhibits professionalism with ethical attitude, excellent communication and team spirit to Satisfy society needs.

PROGRAM SPECIFIC OUTCOMES (PSOs)

- **PSO1:** Able to design and develop software solutions by employing appropriate problem solving strategies, including Logically thinking, Create a user interface, Write code to connect a front end user interface with a backend database using a contemporary object-oriented language.
- **PSO2:** Ability to design and develop mobile applications and Web based applications with testing skills which consequently leads to employability and entrepreneurship skills.

TECHNICAL PROGRAMMES



Technical Symposium (TECQUORA 2.0) was organized on 29.08.2018. Dr. Soma Sundaram Balasubramaniam was the resource person



Various events were conducted in Technical Symposium (TECQUORA 2.0) and the winners are awarded with prizes



One Day Seminar on Virtual Reality and Augmented reality Mr. R Aravindhan Team Lead, CARESOFT Global Private Ltd on 04.07.2008. The event was organized by Dr Saravana Sundaram & Mr.Mahaveerakannan R



Two days workshop on “ Internet of Things and Applications” was handled by Dr. V Anantha Narayanan, Honorary Secretary of IETE Coimbatore Center on 27.07.2008 & 28.07.2018. The event was organized by Dr Rasi D & Mr Mahaveerakannan R.



Guest Lecture on “Computer Networking” was organized on 18.08.2018. Mr. K Santhosh, KGISL IMS GLOBAL ACADEMY was the resource person for the event . Ms Revathi P and Ms Yamini organized the event.



Seminar on “Embedded System” was organized on 23.02.2019. Mr J. Arul Girish Embedded Software Developer 3Q Technologies Coimbatore delivered the seminar. Ms Revathi P and Ms Anitha P coordinated the event

OPEN SOURCE DEVOPS TOOLS WORTH KNOWING

Behat

Behat is a php framework for auto testing the expectations laid by business. It is a behavior-driven, open source development framework for php. This tool supports you in providing software that matters via test automation, deliberate discovery, and continuous communication.

Watir

Watir is a web application cross-platform open source testing tool. It is the most flexible and reliable tool of Ruby libraries for automating the web browsers. Just like a human being, this tool communicates with the browser so it validates text, fills out forms and clicks links.

Supergiant

Built on top of Kubernetes, Supergiant is an open source platform for container management. It is utilized for Kubernetes deployment on multiple clouds in a matter of minutes. The Supergiant API is used for streamlining production deployment. With the help of the packing algorithm of Supergiant, hardware costs can be lowered and the hardware you require with computed efficiency can only be utilized.

Ansible

Ansible automates various common tasks related to IT operations such as application deployment, configuration management and cloud provisioning. It is owned by Red Hat. It integrates with numerous other famous tools for DevOps, including Jenkins, JIRA, Git and many others. The free open source version of Ansible is available on GitHub.

Nagios

Infrastructure monitoring is an area that has numerous solutions, from Zabbix to Nagios to various other open source tools. In spite of the fact that there are much newer tools in the market today, Nagios is a well-established monitoring solution that is highly efficient due to the large contributor community creating plugins for it. Nagios has the capability to deliver results in different visual reports and representations.

SaltStack

SaltStack is the paid enterprise version of Salt. Salt is a highly flexible, powerful and intelligent open source software for event-driven orchestration, cloud control, configuration automation

and remote execution. It helps DevOps companies by orchestrating the effective movement of code into production and keeping the complex infrastructures tuned for optimal application delivery and business service. Saltstack orchestrates the value chain of DevOps and helps to deploy as well as configure dynamic applications.

Chef

Chef makes it possible to manage both traditional and cloud environments with one single tool. While maintaining high availability, Chef promises to accelerate cloud adoption. The chef development kit provides you with the tools you need to develop as well as test your infrastructure automation code from your workstation locally prior to deploying changes into production. On the Chef site, many technical resources and a lot of documentation is available including various resources designed to help organizations transition to DevOps and scale their implementations of DevOps.

Docker

You can expect portability with Docker, which is transforming IT environments. The portability is made possible via its special containerization technology, quite often found in self-contained units. It packages everything than an application is required to run: libraries, system tools, runtime, etc. Due to this, the applications can function the same way irrespective of their deployment location. A part of Docker known as Docker Engine is a tool responsible for creation and running of Docker containers. Another part of Docker known as the Docker Hub is a service application based on cloud encompassing the concept of application-sharing and workflow automation.

Git

Git has become incredibly popular in the recent years for managing the source code. It has become famous, especially as a site, for hosting open source projects. Because of the ease with which it handles merging and branching, it stands out from other version control management. Many DevOps teams utilize it for managing the source code of their applications. It has great pull request and forking features. It also consists of plugins that can link with Jenkins to facilitate deployment and integration.

Hudson

Hudson is a tool for managing and monitoring continuous testing and integration. The key features of Hudson include support for various systems for management of source code, application servers, code analysis tools, testing frameworks, build tools, real-time notifications

of test failures, change set support and easy process for installation and configuration. A huge library of plugins is present that further extend its capabilities.

Puppet

No matter where it runs, Puppet promises a standard way of operating and delivering software. Puppet automates deployment to boost auditability, reliability and agility. The products of Puppet provide continuous automation and delivery across the complete software delivery life cycle. The latest version of Puppet features Node Manager and Puppet Apps, which help handle large number of dynamic, variable systems.

TODAY
IS YOUR DAY
TO START FRESH
TO EAT RIGHT
TO TRAIN HARD
TO LIVE HEALTHY
TO BE PROUD

INFORMATION TECHNOLOGY

INTRODUCTION

Information Technology (IT) has grown and evolved over the last 50 years; you cannot think and plan a project, business or other initiative without the usage of this technology. When we say Information Technology that means not only personal computers or smart phones, but also modern machinery in factories, automotive industry, aviation industry, various household appliances etc., In one way or another this has not only facilitated our daily lives but it has also reduced cost and time in general. Research shows that a quarter of workers in the United States

of America work from home for a considerable time of the year, while, another quarter work “mobile” - on the move. This reflects the great opportunities that Information Technology and the Internet provide as an important tool for implementation in organizations and public institutions. Economists highly appreciate the importance of Information Technology in business growth, lowering costs and promoting the best products. During recent years, globalization and computerization have redefined the industry, politics, culture, and social order. Globalization refers to ultimately integrate economic and cultural institutions. This integration occurs as a result of the use of information technology. The technological revolution presupposes global computerized networks and the free movement of goods, information, and peoples across national boundaries. Hence, the Internet and global computer networks make possible globalization by producing a technological infrastructure for the global economy. Computerized networks, satellite communication systems, software and hardware link together and facilitate the global economy.

WHY IT IS IMPORTANT ?

Information technology helps to build and grow the commerce and business sector and generate maximum possible output. The time taken by different sectors to generate business is now minimised with an advancement in Information technology. It provides electronic security, storage, and efficient communication. To conduct the work, Information technology needs computer applications. Computers connect IT to the different organizations of the world. It helps the employees to maintain records of their numerous clients of various companies. It helps patients to contact physicians online and take advice regarding their health problems. Also, records of patients can be managed properly by the system.

To collect information, programming/coding, data conversion, data communications retrieval and storage, system analysis are used. Even the education sector has been dramatically changed with the arrival of Information Technology. To run business in the right way and generate expected outcomes, computers, software, and the internet helps a lot.

Companies are now having the virtual vaults which is a new form of storage system which allows users to keep or withdraw their documents. The IT department is providing a strong communication system to communicate effectively.

SOFTWARE DEVELOPMENT TOOLS

- **JavaScript**

JavaScript is the world's most popular programming language. JavaScript is the programming language of the Web. JavaScript is easy to learn.

- **Java**

Java is used to develop mobile apps, web apps, desktop apps, games and much more.

- **HTML**

HTML you can create your own Website. HTML is easy to learn

- **C**

C is a powerful general-purpose programming language. It can be used to develop software like operating systems, databases, compilers

- **C++**

C++ is a popular programming language. C++ is used to create computer programs.

- **Python**

Python is an interpreted high-level general-purpose programming language. Its design philosophy emphasizes code readability with its use of significant.

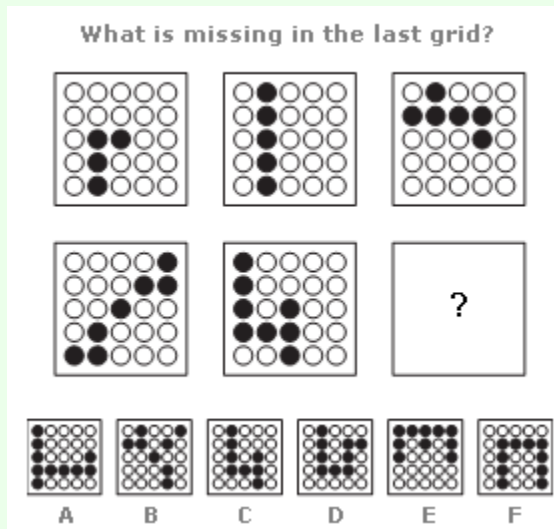
- **CSS**

CSS is the language we use to style an HTML document. CSS describes how HTML elements should be displayed.

- **SQL**

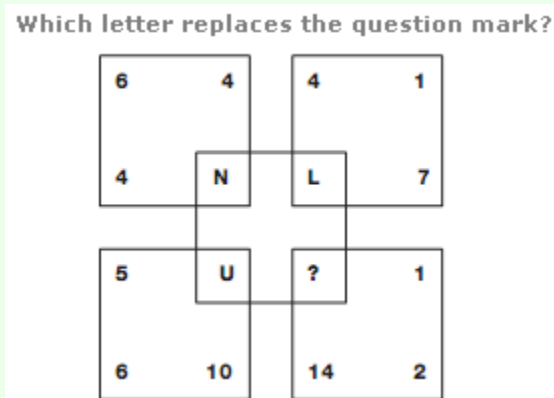
SQL is a standardized programming language that's used to manage relational databases and perform various operations on the data .

PUZZLES



Answer : D

Explanation : The number of black dots in each grid increases by 1 each time, starting with the top left grid and working to the right, top row then bottom row.



Answer : Q

Explanation : Adding the three numbers in each square together gives the numerical value of the letter at the centre of each square.

கவிதை

தங்கத்தை நெருப்பு
தூய்மைபடுத்தும்
துன்பங்கள் தான் மணிதனை
உறுதிபடுத்தும்..
போராடு வெற்றி உன்னிடமே

-RAJA RAJAN.R IV IT B

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