



GOVERNMENT
POLYTECHNIC THANE
INFORMATION
TECHNOLOGY

2019-20

TECHMAGZ



Department of Information Technology



The department of Information Technology was established in 2001 with intake capacity of 60 students. Information Technology department always strive to achieve excellence in education so as to enable students to establish themselves as world-class technicians. The department will provide vibrant infrastructure and software application tool sets to empower them with the proficiency and knowledge required to excel in the dynamic field of IT and to pursue higher education. Information Technology department is committed to create and disseminate knowledge through innovative teaching & learning so as to provide world class technicians at diploma level. It also imparts technical knowledge and skills to students towards continuous improvement in education and placement and prepares the students to meet the challenges in the technical advancement to serve the community. The department has qualified and experienced faculty to impart quality teaching to students. The students are motivated to achieve excellence not only in academics but also in their overall development. Students can also start their own careers in small software development firms or Hardware Maintenance firms.

VISION

To develop technical manpower in Information Technology by adapting rapid technological advancement.

MISSION

We are committed to

- **M1:** Provide hands on skills with well-equipped laboratories
- **M2:** Train faculty & staff to adapt changing technology.
- **M3:** Develop IT professionals with entrepreneurial skills.
- **M4:** Inculcate ethical values, honesty, equity, women empowerment and safety.

PROGRAM EDUCATIONAL OBJECTIVES

PEO1: Provide socially responsible, environment friendly solutions to Information technology related broad-based problems adapting professional ethics.

PEO2: Adapt state-of-the-art Information Technology broad-based techniques to work in multi-disciplinary work environments.

PEO3: Solve broad-based problems individually and as a team member communicating effectively in the world of work.

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Message From Principal



Dr. Nitiket N. Mhala Principal,

Govt. Polytechnic, Thane

Government Polytechnic Thane is one of the oldest polytechnics established in Mumbai region in 1985. The institute belongs to Government of Maharashtra & under the governance of the Director of Technical Education (M.S) Mumbai. The institute is affiliated to Maharashtra State Board of Technical Education (MSBTE).

The Institute is a co-education institute responsible for imparting industry-responsive Diploma level programs in the field of engineering, technology & professional education to the students admitted as per norms stipulated by Government of Maharashtra.

The institute is much closer to the industrial area within the developing community. The notable industries located within 10 kms belt around Thane.

Well established infrastructure facilities are key factors for positive performances.

The faculty members are well qualified, experienced & well trained under NITTTR courses, I.S.T.E. courses & other personality development courses. Faculty members are capable of conducting continuing educational programmes for the industries and the other organizations.

As we believe that education is not simply the acquisition of knowledge, but it is something that develops thinking in the students which leaves a lasting effect upon them resulting in a lifelong learning. So, our goal is to support the students for their overall development. We take efforts to make our students able to face challenges and stand confidently in the increasingly complex world.

MESSAGE FORM HEAD OF THE DEPARTMENT



Prof. Dipali P. Sapkal
Editor-in- Chief Technical Magazine
Department of Information Technology

On behalf of Information Technology Department, I am pleased to announce the launching of the of Technical Magazine of Information Technology Department and to make it available to everyone. This Technical Magazine aims to disseminate achievements in technical developments, while featuring new break-through in the field of Information Technology Department. The entire Editorial team did their best to provide a platform for distinguished faculties, academicians, industry experts and students to share the latest accomplishments with faculties, Industry experts and students whereby disseminating the knowledge gained from their technical endeavours. As Editor-in-Chief, I am open to explore the opportunities for making this Technical Magazine an exciting and definitive forum for attracting and publishing innovative and transformative ideas and for making this technical magazine serve as a forum for disseminating timely and exciting technical development that can stimulate innovation. At the end, I would like to thank editorial board members, faculties, Industry experts and students and hope that our collective efforts stimulate further progress in this domain of activity with strong determination at both national and international levels.

Topper's List

Academic Year
2019-2020

First Year



Topper 1
80.00 %

PATIL KRISHNALI
SANTOSH

Topper 2
79.00 %

SIDDHESH RAVINDRA
SOLKAR

Second Year



Topper 1
85.31 %

GHARGE ATHARV
MADHUKAR

Topper 2
82.19 %

MORE CHETAN
DILIP

Third Year



Topper 1
92.69 %

SIRSAT ANUSHKA
GAJANAN

Topper 2
92.50 %

KOLAMBE YASH
VIKAS

Department Co-curricular activities.

Expert lectures held in 2019-20

Meet - meb-ytzj-pnd


meet.google.com/meb-ytzj-pnd

mitali malusare is presenting

Shalini Gupta and 23 more

13:24

Lamp lightning ceremony



वक्रतुण्ड महाकाय सूर्यकोटि समप्रभ ।
निर्विघ्नं कुरु मे देव सर्वकार्येषु सर्वदा ॥

Meeting details

Turn on captions

mitali malusare is presenting

Participants: You, mitali malusare, dipali sapkal, mansi patil, vidya bhonde, jayashree salunk..., Sakshi Pawar, Siddhesh Solkar, Dattatreya Maha..., Atharv Charge, Sapana Birla, Arjun Pawar, Pooja Khandare, Ayush Patil, Gaurav Rahate

Meet - meb-ytzj-pnd

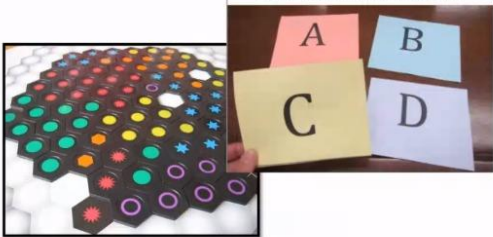
meet.google.com/meb-ytzj-pnd

mitali malusare is presenting

Harshada Rane and 28 more

14:24

It's Evolution Quiz Time!



GAME 3:- ONLINE GAME

CO-ORDINATORS:
MS.MANSI PATIL(IF51)
AND
MS.MITALI MALUSARE(IF51)

Meeting details

Turn on captions

mitali malusare is presenting

Participants: You, Harshada Borade, Aditya Jadhav, mitali malusare, mansi patil, Siddhesh Solkar, Sapana Birla, Arjun Pawar, Akshay Bangar, Ram Patil, omkar bhise, Atharv Charge, jyoti kulkarni, Gaurav Rahate, Sakshi Pawar

Meet - meb-ytzj-pnd

meet.google.com/meb-ytzj-pnd

Sapana Birla is presenting

VARSHA KHANDE... and 24 more

14:45

Scoreboard

Kahoot!
Family & Friends edition

Participant	Score
Sadaf	5578 ▲
Sapana Birla	4870
Varsha	3390
DIPALI	2908 ▲
Tatya	2298

mital malusare

A S S

Meeting details

People (45)

Chat

Some words by dear Teachers
Respected HOD mam
Honourable Principal Sir

mital malusare

Dipali sapkal

Dattatraya Ma...

Akhay Gharje

Sapana Birla

Bhawartha L...

Arjun Pawar

Prayanshu Babu

Siddhesh Selkar (You)

Akshay Bangar

Anish Phapale

Anushka Senal

Apoorna Shirke

Ajati Pawar

Akhay Gharje

Akhay Meshram

Ayesha Khan

Ayush Pali

Bhawartha Lohage

Chetan More

Dattatraya Mahajan

Participation and certificate

Certificate achieved by Pratik Chaudhari in Zonal Sports Meet.



Article 1:

Artificial Intelligence And Data Science



Artificial Intelligence:

An interdisciplinary field that uses scientific methods, processes, algorithms, and systems to extract data. Meanwhile, they define artificial intelligence as the theory and development of computer systems that can perform tasks that normally require human intelligence. At a conference at Dartmouth College, Hanover, New Hampshire, where the term Artificial intelligence was coined (1956). It's a human-like intelligence provided to the machines where machines act and think as humanly. They solve problems faster than human beings. Speech recognition, translation tools, etc. are the building areas of AI. AI is all about machine learning deep learning etc. We can emulate cognition and human understanding to a certain level

Data Science:

Data science is an interdisciplinary field that uses scientific methods, processes, algorithms and systems to extract or extrapolate knowledge

and insights from noisy, structured and unstructured data, and apply knowledge from data across a broad range of application domains. In 1974, Peter Naur proposed data science as an alternative name for computer science. Data Science is a subset of Artificial Intelligence. Simply data science is a collection of data to analyze and we make a decision on behalf of it. It uses scientific methods, processes, algorithms, and insights from many structural and unstructured data. the person who works in data science is known as data scientist.

What Is Data Science And Artificial Intelligence?

Data science is the process of extracting raw and unstructured data combining scientific methods and mathematical formulas, and turning them into structured and filtered data. It uses various tools and techniques to uncover business insights and turn them into actionable solutions. Data scientists, engineers, and executives perform steps like data mining, data cleansing, data aggregation, data manipulation, and data analysis, among others.

Artificial Intelligence is the subset of data science that is often considered the proxy for the human brain. It uses intelligent and smart systems to offer business processes automation, efficiency, and productivity. Here are some of the real-life AI applications:

- Chatbots
- Voice assistance
- Automated recommendations
- Language translations
- Image recognition

The use of data science and artificial intelligence in companies can help them achieve the unthinkable. It can also trigger automation and efficiency in processes that require more workforce and man-hours. Therefore, many industries have incorporated data science and artificial intelligence, which are reaping the benefits that we will be discussing in the next part of the article.

What Are The Benefits Of Integrating Data Science And Artificial Intelligence?

Data science and artificial intelligence influence various aspects of society- from grocery shopping to commuting on public transport;

everything is evolving since the integration of data science and AI. Below, we enlist some of the benefits triggered by the integration of data science and artificial intelligence.

- Automation of intensive human tasks has helped the workforce to concentrate on other functions.
- Increases efficiency and productivity in Healthcare, Insurance, Pharma, Marketing, and other industries.
- Innovation systems to interact with customers and gauge their requirements.
- Forecasting disasters and preparing for them beforehand.
- It leads to a reduction in human errors.

Future Of Data Science

The future of data science is believed to witness some of the biggest innovations seen in the last decade, starting from the data explosion to the growth of the internet of things (IoT) and social media. Experts predict that in the next decade, the rise of machines will lead to the growth in usage and utility of computer systems and mobile devices. Furthermore, experts also claim that social media use will substantially increase with users consuming numerous amounts of data online. Customers will be using social media for entertainment, transactions, surveillance, etc. Machine learning algorithms will also see a steep rise estimates some experts.

Future Of Artificial Intelligence

Artificial intelligence is an emerging industry that is turning out to be a proxy for the human brain. It performs various business functions without human intervention like customer interaction, creating brand awareness on social media, etc. Many experts believe that AI can beat humans in almost every cognitive task. Artificial intelligence applications are transforming Healthcare, Insurance, Finance, and Marketing sectors by automating various administrative processes like employee or patient record management, conducting market research, and interacting with potential customers, among others.

Now that you are aware of the future of data science and AI systems, we will look at how to develop a successful career in the respective fields.

How To Develop A Career In Data Science?

Companies are sitting over a mine of data and converting them into an actionable solution. They are employing data scientists. The need for a skilled and talented data scientist increases with each passing day. Suppose you want to develop a long-term career in data science; here are some prerequisites you need to consider.

- Undertake a bachelor's or master's degree in data science or a similar field. In addition, candidates can take up different certification or diploma courses to brush up on their data science skills and expand their knowledge of different concepts.
- Hone technical and soft skills like database management, coding languages basics, analytical tools, communication skills, data intuition, and strong business acumen.
- Take up internship opportunities in firms to learn how to translate classroom knowledge to the practical world.

Due to the increasing demand for data science professionals, the job opportunities in the field are abundant. Besides data scientists, here are data science job titles that will be trending in 2022:

- Data analyst
- Data engineer
- Business intelligence analyst
- Marketing analyst

How To Develop A Career In AI?

There are abundant artificial intelligence opportunities due to the widespread use of AI applications in different industries. So, a career in AI looks promising. Here are some of the trending AI job titles:

- Big data engineer
- Machine learning engineer
- Research scientist
- AI data analyst
- AI engineer

-Vaishnavi Patil

Article 2: Technology



Technology affects people all over the world. Advances in technology have made our countries safer and our lives easier, they have also negatively affected our lives. Technology have brought us online banking, smart cars, smart TVs, lightning fast computers, and the virtual reality. Also there include cyber warfare, hackers, identity theft, cyber stalking, and a host of other bad things.

The society has been changed with the evolution of **technology**. Life was burdensome and everyday chores consumed too much of our time, before the advent of modern day technology. The access to education, medicine, industry, transportation etc. has been simplified due to development in modern day technology. Due to the convenience and efficiency provided by technology, our lives have improved. **Information technology** give a new face to traditional libraries that include both digital collections and traditional, fixed

media collections. We know that traditional libraries are limited by its storage space, but the digital information requires little space to contain information, so digital libraries have the potential to store more documents. The use of information technology in digital libraries that will increase the number of users and increased the expectations of the users.

Technology has also brought about efficiency and quality in the manufacturing sector. Technological advancement has reduced the risk. Development is closely related with technology and the stage of development the human being has arrived could have been possible without the advancement in technology.

Agriculture, industry, profession, health, education, art, political processes, recreation, religious activities and daily life activities all are under the influence of technology now. There are some modern technological developments that play a major role in making our daily life more effective. Television is also good servant, it's considered as the cheapest source of information and entertainment nowadays. Technological progress has merely provided us with more efficient means for going whether forwards or backwards as well. It has enable Us to increase our comfort and to achieve efficiency in all sectors of life .We can't achieve any progress or development, without technology. We can modernize our industry so life becomes easier for us and next generations through the developed technologies.

-Soham Kule

Technical Games

Name: _____ Date: _____ Period: _____

Technology Word Search

W X Q P C W N W L T W I N N O V A T I O N H A G
R I N T E R N E T S A F E T Y E F T O O L S L L
J G S X I C C S F I U F N F X R E S E A R C H F
O J O I S I Y P I E V J G P C I F X N W D M V Y
N G F R P Y B A R U I L S H F H L U Z I R O L M
R P T T S S E C E C G R I D S E A G S P O D E I
T Y W Z H G R E W O P R Y T G O S D F K P Y M O
U M A X K S B N A M M F W W W J H A E D B M A P
Q Q R C V H U T L M P K G Z M I D T E F O D I E
N S E C I Y L Q L U M M K C D M R A Y H X T L R
P F F K P L L U S N P K W H O O I D P D J F B A
J W F N V B Y X J I Q H A I W N V P O A I E B T
G S I D I T Z S S C N Y R V N I E V I F J B I I
W H C X H Y R F U A H G V Q L T S O V G J B L N
O W I H J J I I Q T N A H I O O A L E Z R Y X G
Z B E C U Y C S Z I L G Z K A R N E T W O R K S
Y O N S Q E K X T O W I T I D P X C B A I I J Y
F X C P K C C Z H N E D U C A T I O N M W Z S S
Q Y Y B L O G B N A L O C U X J E P E Q P V F T
K M C X Z C R X S Q A F C B F A G J A O T E B E
Y X G I E U S D W V H J Q A S A K A I U G K C M
T E C H N O L O G Y O N A V O C C H Z L E O O Q
Y F V V T O E I S J V S O C I A L N E T W O R K
J K P P E R S O N A L C O M P U T E R E P S J Q

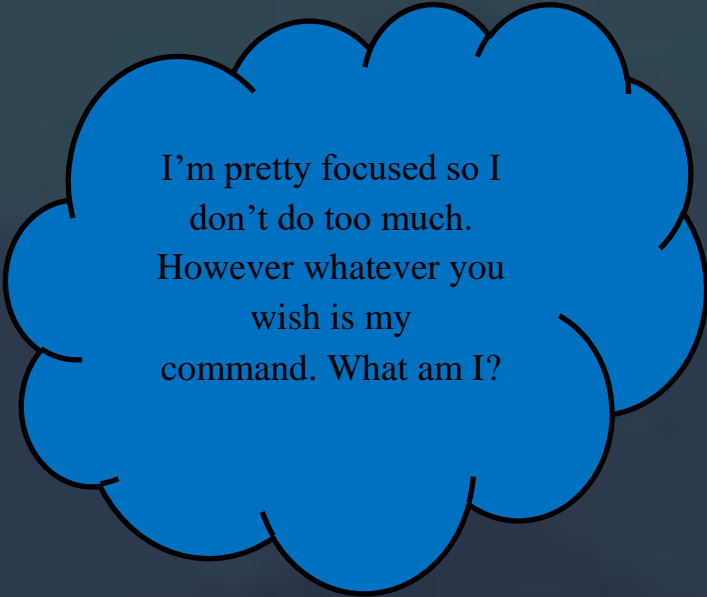
Personal computer	operating system	internet safety	Social Network
communication	flash drive	efficiency	innovation
Cyberbully	technology	education	download
drop box	firewall	research	Software
Monitor	Network	space	Email
tools	data	blog	www

Riddles

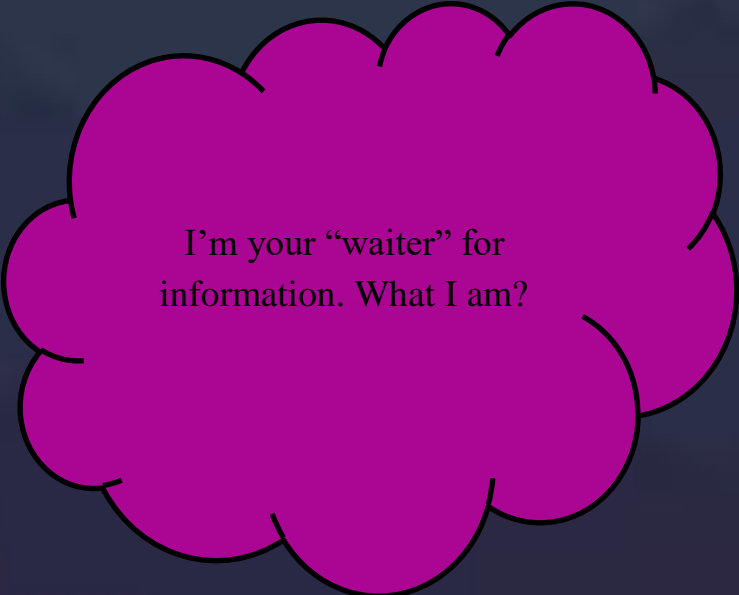
The more you code, the more of me there is. I may be gone for now but you can't get rid of me forever. What am I.?

As a developer I'm your eyes, showing you the result of your code in your language of choice. What am I.?

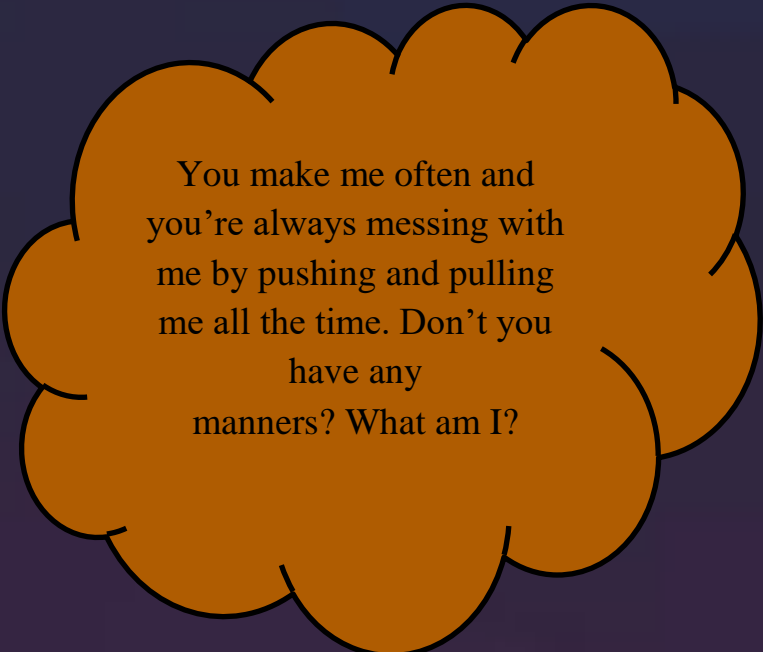
As a developer, you usually get mad at me because I complain a lot, although I'm usually right. What am I.?



I'm pretty focused so I
don't do too much.
However whatever you
wish is my
command. What am I?



I'm your "waiter" for
information. What I am?

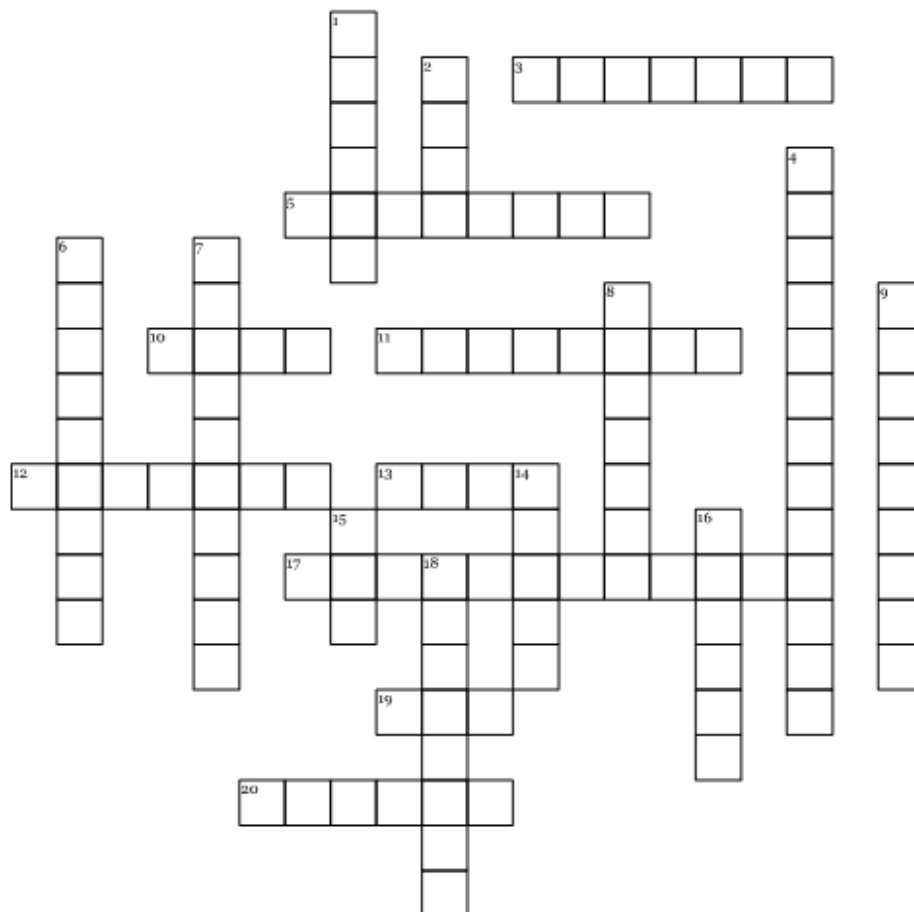


You make me often and
you're always messing with
me by pushing and pulling
me all the time. Don't you
have any
manners? What am I?

Crossword Game:

Name: _____

Technology



Across

- 3.** a computer program sent to gather information from your computer
5. What is a network security system used to stop unauthorised access
10. type of text stlye and size
11. copy (data) from one computer system to another, typically over the Internet.
12. A client software program that runs against a Web server or other Internet server and enables a user to navigate the World Wide Web (WWW) to access and display data.
13. real-time, synchronous, text-based communication via computer
17. process of converting data into a secret code for transmission over a public network

19. Is a plug-and-play interface that allows a computer to communicate with peripheral and other devices.

20. data sent to your computer by a Web server that records your actions on a certain Web site

Down

- 1.** small program that can be downloaded which allows users to enhance their browser; this allows extra activities of the web
2. Usually consists of eight bits.
4. what is it called if people are nasty to you online?
6. code made up of numbers separated by three dots that identifies a particular computer on the Internet

7. rate at which a processor can complete a processing cycle

8. A device that feeds data into a computer, such as a keyboard or mouse.

9. A software system that links topics on the screen to related information and graphics, which are typically accessed by a point-and-click method.

14. a person who posts inflammatory comments or messages in an online community such as a forum, chatroom, blog or on social networking sites.

15. A web address

16. Sending an email, posting photos on a social media site and using your webcam.

18. The act of trying to access someone's information illegally

Word Bank

- | | | | | |
|-----------|-----------|----------|--------------|---------------|
| firewall | plugin | troll | CRYPTOGRAPHY | chat |
| hypertext | download | phishing | browser | Monitor |
| upload | usb | byte | cookie | cyberbullying |
| font | IPADDRESS | malware | clockspeed | url |



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