

# **GREEN HOUR**



M.Sc. Biotechnology (21-23) Class Teacher : Dr. Haritha VH							
	8:55	9.00-9.50	10.00-10.50	11.10-12.00	12.10-1.00	2-3	3.15-4.15
MON	Prayer	TV	TV	HVH	HVH	SK	Monday Seminar
TUE		SS	SS	SJ	HVH	Continuous Assessment	Science Update
WED		TV	TV	APA	APA	HVH	APA
THU		TV	Library	SS	SS	APA	Green Hour and Mentoring
FRI		Practicals					

BT020101 General Biochemistry - Dr. Treesa Varghese (combined)

BT020102 Cell Biology and genetics - Dr. Haritha VH

BT020103 Instrumentation and Biostatistics - Dr. Sibu Simon and Sini Kurien

BT020104 Biophysics and Bioinformatics – Athira P Anil and Stephen James

BT020105 Lab course I : Biochemistry - Dr. Treesa Varghese

M.Sc. Biotechnology (20-22) Class Teacher : Dr. Blessan Santhosh George								
	8:55	9.00-9.50	10.00-10.50	11.10-12.00	12.10-1.00	2-3	3.15-4.15	
MON	Prayer	SS	SS	DR	DR	HVH	Monday Seminar	
TUE		HVH	HVH	DR	DR	SS	SS	
WED		Practicals						
THU		HVH	HVH	DR	DR	SS	Green Hour and Mentoring	
FRI		SS	SS	HVH	HVH	Continuous Assessment	Science Update/	


BT020301 Bioprocess Technology - Dr. Haritha VH

BT020302 Recombinant DNA Technology - Dr. Sibu Simon

BT020303 Environmental biotechnology - Dr. Dhanya Radhakrishnan

BT020304 Plant and Animal biotechnology - Dr. Dhanya Radhakrishnan and Dr. Sibu Simon

BT020305 Lab Course III - Dr. Haritha VH and Dr. Dhanya Radhakrishnan

  
 Head, School of Bio Sciences  
 Mar Athanasios College for Advanced Studies  
 (MACFAST)  
 Tiruvalla-689 101  
 Kerala, India

**Mar Athanasios College For Advanced Studies, Tiruvalla**  
**Department of Computer Applications**  
**Time Table**

**S1 MCA (2018-2021)**

Day	9-9.55	10-10.55	11.10 - 12.05	12.10-1.05	1.55-2.50	2.55 -3.50	3.55- 4.45
<b>Monday</b>	103 Oleena	104 Nishad	102 Brejit	108 Jeena	101 SL	106:C LAB	
<b>Tuesday</b>	103 Oleena	101 SL	102 Brejit	103 Oleena	105 Jeena	107:DS LAB	
<b>Wednesday</b>	103 Oleena	101 SL	104 Nishad	WG	104 Nishad	106:C LAB	
<b>Thursday</b>	105 Jeena	103 Oleena	101 SL	102 Brejit	104 Terry		<b>GREEN HOUR</b>
<b>Friday</b>	103 Oleena	102 Brejit	101 SL	101 SL	105 Jeena	107:DS LAB	

MCA101T: Discrete Mathematics and Statistics [Mrs. Sreelekshmi C Warriar & Mr. Akhosh T]

MCA102T: Fundamentals of Data Structures [Ms. Brejit Lilly Abraham]

MCA103T: Paradigms of Programming Languages [Mrs. Oleena Thomas]

MCA104T: Digital Systems & Computer Architecture [Dr. Nishad P M & Mr. Terry Jacob Mathew]

MCA105T: Problem Solving and Programming in C [Ms. Jeena Sara Viju]

MCA106P: C Practicals [Ms. Jeena Sara Viju]

MCA107P: Data Structures through C Practicals [Ms. Brejit Lilly Abraham]

MCA108T: English for Professional Communication (Ms. Jeena Sara Viju)

Website Project: Ms. Poornima M

AT: Aptitude Training: Mr. Akhosh T

Class In charge: Ms. Jeena Sara Viju



**Mr. Tiji Thomas**

**Head, Department of Computer Applications**





**Mar Athanasios College For Advanced Studies, Tiruvalla**  
**Department of Computer Applications**  
**Time Table**

**MCA 2016-19 – S5 MCA (REGULAR)**

Day	9-9.55	10-10.55	11.10 - 12.05	12.10- 1.05	1.55-2.50	2.55 - 3.50	3.55- 4.45
Monday	501 Brejit	504 Vidhya	502 Nishad	503 Phijo	505 Thomas	502 Nishad	Seminar
Tuesday	504 Vidhya	501 Brejit	503 Phijo	505 Thomas	501 SL	Seminar	AT Akhosh
Wednesday	501 Brejit	503 Phijo	504 Vidhya	WG	502 Nishad	MCA506: OPENGL Lab	
Thursday	505 Thomas	501 Brejit	504 Vidhya	503 Phijo	MCA 507:Mini Project		Green Hour
Friday	502 Nishad	504 Vidhya	501 Brejit	505 Thomas	Library	MCA 507:Mini Project	

MCA501: Computer Security (Ms. Brejit Lilly Abraham )

MCA502: Internet Technology and Distributed Applications (Dr. Nishad P M)

MCA503: Computer Graphics (Mrs. Phijo J Cherickal)

MCA504: Data Mining (Ms.Vidhya V Kumar)

MCA505: User Interface Design (Mr. Thomas Mathew)

MCA506: OPENGL Lab(Mr. Ashokraj R)

MCA 507:Mini Project(Ms. Poornima M)

MCA508: Seminar(Ms. Ranjini Mariam Philipose)

Aptitude Training (AT):Mr. Akhosh T

Class In charge: Mr. Thomas Mathew



**Mr. Tiji Thomas**

**Head, Department of Computer Application**



**Mar Athanasios College For Advanced Studies, Tiruvalla**  
**Department of Computer Applications**  
**Time Table**

**MCA 2017-19 – S5 MCA (L.E)**

Day	9-9.55	10-10.55	11.10 - 12.05	12.10- 1.05	1.55-2.50	2.55 - 3.50	3.55- 4.45
<b>Monday</b>	501 Vidhya	502 Jeena	503 Ranjini	505 Nishad	AT	Library	Seminar
<b>Tuesday</b>	502 Jeena	504 Thomas	501 Vidhya	Seminar	503 Ranjini	MCA 506P: Java lab	
<b>Wednesday</b>	505 Nishad	501 Vidhya	504 Thomas	<b>WG</b>	502 Jeena	MCA 507P: Python lab	
<b>Thursday</b>	503 Ranjini	504 Thomas	502 Jeena	AT	MCA 507P: Python lab	<b>Green Hour</b>	
<b>Friday</b>	504 Thomas	505 Nishad	503 Ranjini	501 Vidhya	505 Nishad	MCA 506P: Java lab	

MCA 501T: User Interface Design (Mrs. Vidhya V Kumar)

MCA 502T: Knowledge Management & Business Intelligence (Ms. Jeena Sara Viju)

MCA 503T: Enterprise Resource Planning (Ms. Ranjini Mariam Philipose)

MCA 504T: Advanced Java Programming (Mr. Thomas Mathew)

MCA 505T: Sensor Networks (Dr. Nishad P M)

MCA 506P: Advanced Java Programming Practicals (Mr. Thomas Mathew)

MCA 507P: Python Programming - Practicals (Mr. Tiji Thomas)

MCA 508S: Main Seminar – Current Trends (Mrs. Vidhya V Kumar)

Aptitude Training (AT):Mr. Akhosh T

Class In charge: Mrs. Vidhya V Kumar



**Mr. Tiji Thomas**

**Head, Department of Computer Applications**





## Introduction

Energy conservation is the effort made to reduce the consumption of energy by using less of an energy service. This can be achieved either by using energy more efficiently or by reducing the amount of service used. Energy conservation is a part of the concept of ecosufficiency. Energy conservation reduces the need for energy services and can result in increased environmental quality, national security, and higher savings. It is not at the top of sustainable energy hierarchy. It also lowers energy costs by preventing future resource depletion. Energy conservation is the effort made to reduce the consumption of energy by using less of an energy service.

Energy can be conserved by reducing wastage and losses, improving efficiency through technological upgrades and improved operation and maintenance on a global level energy use can also be reduced by stabilization of population growth. Individuals and organizations that are direct consumers of energy choose to conserve energy to reduce energy cost and promote economic security. Industrial and commercial users can increase energy use efficiency to maximize product. In passive solar building design, windows, doors and floors are made to collect, store and distribute solar energy in the form of heat in winter and reject solar heat in summer. This is called passive solar design or climatic design because unlike active solar heating systems, it doesn't involve the use of mechanical and electrical devices. The key to design a passive solar building is to best take advantage of local climate responsibility for energy conservation fall between 3 government departments although is led by the department of Energy and Climate Change (DECC).

In today's modern world, where the economies of the world are intertwined, regional events have global repercussions. Just the rumor of potential conflict in an oil producing country has the power to drive up gas prices worldwide. Lessening a dependence on foreign oil through conservation offers a measure of financial and national security. So, by energy conservation we can protect the environment and conserve natural resources.

## Aim & Objectives

- Protect the environment and conserve natural resources through energy conservation and proper disposal of waste, reduction in use of materials, reuse and recycling.
- It plays an important role in utilization of non-renewable resources also impacts our environment.
- It reduces emissions of greenhouse gas from fossil fuels.
- It like low our utility bills and allows you to save the high cost of electric bills.
- This helps the replacement of non-renewable resources with renewable energy.
- It helps to prevent climate change by reducing harmful emissions.
- Energy conservations is often the most economical solution to energy shortages.

## Description of Events:

On 17<sup>th</sup> January Thursday, the last hour was taken as Green Hour. There were mainly 2 events conducted as part of the programme,

- The first was a detailed presentation on "The Conservation of Energy" by Rean Sosa Varghese and Anisha Varghese with suitable examples.
- The next event was a video presentation by Jitto Joseph Vaidhyan which themed on the misuse of energy and its after effects.

## Consequences

- The Organization for Economic Co-operation and Development (OECD) warns that, given the current trends, energy-related emissions will increase by 70 percent by 2050. This can accelerate

the negative consequences of climate change, including higher temperatures and a rise in the frequency of extreme weather events

- As an after effect of water crisis, there will not be enough potable water for people, which in turn leads to drought, famine and death.

### Conclusion

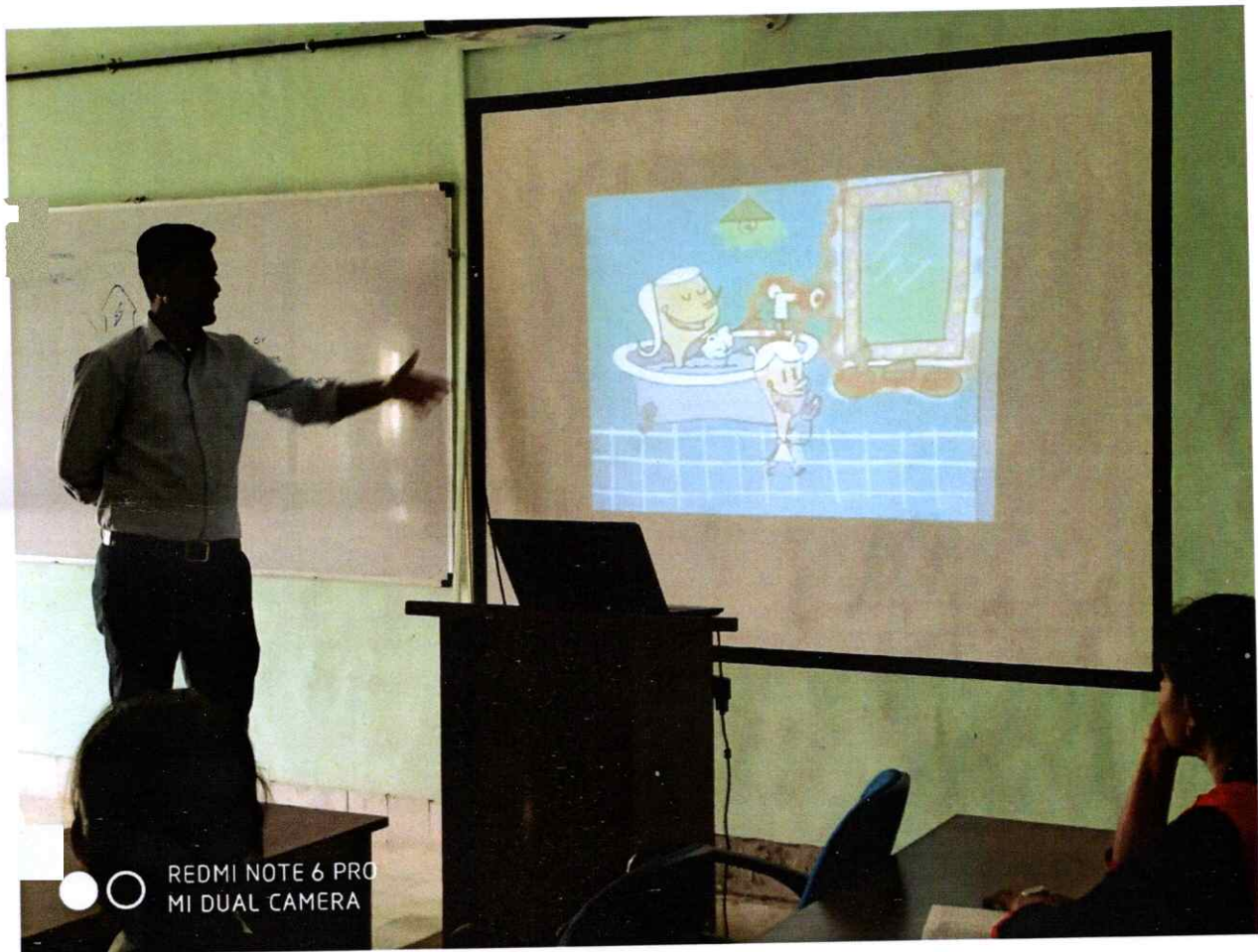
Energy can be neither be created nor destroyed but only changed. This concept is best understood by looking at Law of Conservation of Energy. All the students who participated in the class got a good knowledge of this topic. The students got a chance to express their view points. The all students are well informed about the after effects and the conservation of energy.

### **Green Hour Photos**



Presentation by Ms. Rean Sosa Varghese on "Green Energy and Clean Air"

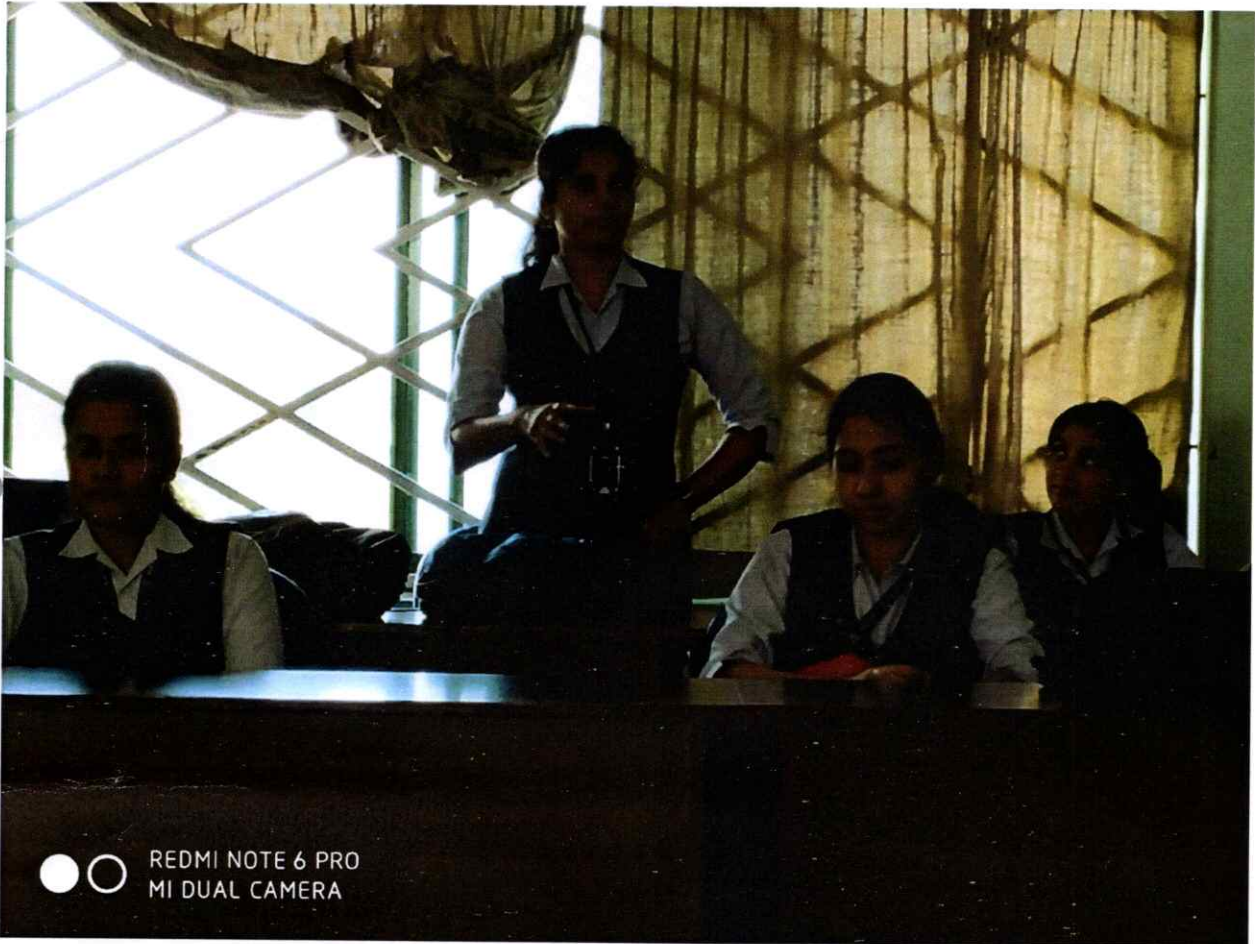




REDMI NOTE 6 PRO  
MI DUAL CAMERA

Video Presentation on "Saving Resources" by Jitto J. Vaidhyan





Presentation by Anisha Varghese on "Conservation of Energy"

GREEN HOUR REPORT

**MAR ATHANASIOS COLLEGE FOR ADVANCED STUDIES TIRUVALLA**



MAR ATHANASIOS COLLEGE  
FOR ADVANCED STUDIES TIRUVALLA

Green Hour Minutes – 10<sup>th</sup> January 2019

SCHOOL OF BIOSCIENCES

### **Regular green hour activities**

Based on the theme of the year various programmes are conducted during the green hour with the continuous monitoring of faculty. The programmes are as follows:

1. A regular visit to the herbal garden
2. Planting trees
3. Cleaning the campus and its premises
4. Maintenance of herbal garden
5. Quiz and debates
6. Essay writing competition
7. Preparation of short notes about the plants in the herbal garden



# THE SCHOOL OF BIOSCIENCES

## INTRODUCTION

Waste management is the process of treating solid wastes and offers variety of solutions for recycling items that don't belong to trash. It is about how garbage can be used as a valuable resource. Waste management is something that each and every household and business owner in the world needs. Waste management disposes of the products and substances that you have use in a safe and efficient manner. Waste management or Waste disposal is all the activities and actions required to manage waste from its inception to its final disposal. This includes amongst other things, collection, transport, treatment and disposal of waste together with monitoring and regulation. It also encompasses the legal and regulatory framework that relates to waste management encompassing guidance on recycling etc. There are eight major groups of waste management methods, each of them divided into numerous categories. Those groups include source reduction and reuse, animal feeding, recycling, composting, fermentation, landfills, incineration and land application. You can start using many techniques right at home, like reduction and reuse, which works to reduce the amount of disposable material use

Recycling of waste has huge environmental and economical benefits. Recycling of one tonne of waste paper saves 17 trees and 7,000 gallons of water. Through WOW, ITC helps to deal with various issues like environment protection, reduction of global warming, improving green cover, reducing landfills, improving ground water quality, general health and hygiene, reducing garbage handling costs, better civic amenities and providing cost competitive raw materials to industries.

## **AIM OF THE PROGRAMME**

The main aim of the programme is to focus on transformation of land fill bound waste such as paper and plastic waste in to value added marketable products.

## **EVENTS CONDUCTED**

The school of Biosciences, Mar Athanasios College for Advanced Studies, Tiruvalla started a new programme '**Waste to Value**' during the academic year 2018-2019. This programme was started on 10-01-2019 and was implemented among the students in green hour. More than 80 students participated in the programme.

### **Programmes to be implemented in the future**

1. Preparation of waste paper products.
2. Preparation of plastic waste products.
3. Exhibition to be conducted in the college and for the public.
4. Awareness programme to be conducted in various schools like distributing pamphlets,expert talks, skitsand various cultural events.

On 10-01-2019 duringthe Green Hour, the whole Bioscience department including teachers and students gathered in the class room to learn and prepare the products from waste paper . The session was handled by Dr. JennyJacob,Assistant Professor ,School of Biosciences, MACFAST,Tiruvalla . Inspite of the evergrowing electronic revolution, the demand for paper products is still increasing. Along with this demand comes a lot of waste. The department focuses to utilise the waste that may cause menace to the public by preparing them into value added products for commercialization. . 80 students



## GREEN HOUR REPORT

from Biosciences department have actively participated in this programme. We are planning to continue the programme on the next Green Hour. The session came to an end at 4.45 pm.





## GREEN HOUR REPORT

On 24<sup>th</sup> January, the students displayed the various value added products from paper and plastic wastes. Large amounts of solid waste (or sludge) from waste water treatment of paper manufactures have been generated. Now aday, the area of landfill is quite limited whereas solid waste has been accumulated. In addition, the manufacturers have to pay for transportation and landfill. In case of agricultural wastes, some of them are mixed with soil or used as the ingredient of fertilizer. However, the value of the wastes is quite low. Therefore, we aimed at the production of value-added products, e.g., paper bags, pen stand and wall hangings using disposable cups and other decorative items from paper. Using plastic bottles, prepared various items like pen stand, decorative items, vertical garden, etc.

**GREEN HOUR**  
**QUIZ COMPETITION**

1. Who were the founder of experimental natural science?

Ans: Isaac Newton

2. Common name for pollination by birds

Ans: Ornithophily

3. How many men have walked on moon?

Ans: 12

4. In which country do the greatest number of tornadoes occur?

Ans: United States

5. What wonder drug was used for 3 years by army and navy before being available for the public?

Ans: Penicillin

6. What is the name for the new technology where a glass fibre carries as much information as 100s of copper wires?

Ans: Optic Fibres

7. Which plant gives linseed oil?

Ans: Flax

8. What is the name of the largest North American terrestrial rodent distinguished by its spiny covering?

Ans: Porcupine

9. Who is the first woman in space?

Ans: Tereshkova

10. What is the age of earth?

Ans: 4.5 billion

11. Who discovered cement?

Ans: Joseph Aspdin

12. Brass is a mixture of?

Ans: Copper and Zinc

13. Which toxic element present in automobile exhausts?

Ans: Lead

14. Name the chemical used to make tooth paste white?

Ans: Titanium dioxide

15. Which is the largest human cell?

Ans: Ovum

16. How many muscles are there in the human body?

Ans: 639

17. Which blood vessels had the smallest diameters?

Ans: Capillaries

18. Greatest number of sweat glands are present in which part of the human body?

Ans: Palm of hands

19. Which vitamin is needed to prevent Xerophthalmia?

Ans: Vitamin A

20. Disease caused by excessive accumulation of iron in the body

Ans: Hemosiderosis

21. How long does a human red blood cell survive?

Ans: 120 days

22. What is the only mineral directly consumed by man?

Ans: Rock salt

23. Who coined the term 'Scientist'?

Ans: William Whewell

24. Which is the fastest flying bird?

Ans: Peregrine Falcon

25. King of metal?

Ans: Gold

26. The first man set foot on moon was Niel Armstrong then who was the last one?

Ans: Eugene Cernan

27. Who used the term computer worm for the first time?

Ans: John Brunner

28. Which is the biggest plant seed?

Ans: Coco de Mer

29. Who invented stethoscope?



Ans: Rene Laennec

30. The type joint found in knee; it can be also found in which part of the body?

Ans: Elbow

31. Study of duration of life?

Ans: Chronobiology

32. What is the working principle of centrifugation?

Ans: Centrifugation

33. Common name of pollination by wind?

Ans: Anemophily

34. Unit of nuclear sizes.

Ans: Fermi

35. Name the effect that caused by scattering of light in colloid or suspension.

Ans: Tyndall Effect

36. Insect that can transmit disease to human are referred to?

Ans: Vectors

37. Which animal never drinks water in its entire life time?

Ans: Kangaroo Rat

38. Name of Nasa-Mars rover?

Ans: Curiosity

39. What dye contains in black ink pen?

Ans: Carbon Black

40. Butyrometer is used for what analysis?

Ans: Fats

# ENVIRONMENTAL QUIZ

## Green Hour on 25-07-2019

- 1) When was India's first national action plan on climate change (NAPEC) launched?  
**2008.**
- 2) Who was the father of Green Revolution in India?  
**M.S. Swaminath.**
- 3) World wildlife day is on?  
**3<sup>rd</sup> March.**
- 4) Earth Summit was held in?  
**Rio de Janeiro in 1992.**
- 5) IUCN (The Intl, Union for Conservation of Nature) and Natural Resources headquarters is at?  
**Morges, Switzerland.**
- 6) IUCN is also called?  
**World Conservation Union.**
- 7) World biodiversity day is on?  
**22<sup>nd</sup> May.**
- 8) Which of the following plants is referred to as living fossil?  
**Ginkgo.**
- 9) Which layer of the atmosphere is also called ozonosphere?  
**Stratosphere.**
- 10) When was the problem of ozone depletion first identified?  
**1970.**
- 11) Which country produces the most e-waste per waste?  
**China.**
- 12) Which of the following is the first station set for Antarctica expedition?  
**Dakshin Gangotri.**
- 13) Reducing the amount of future climate change?  
**Mitigation.**
- 14) When was the Project Tiger launched?  
**1973.**
- 15) When was the Central Zoo Authority established in India?

**1992.**

16) What does the term MIKE stand for?

**Monitoring of Illegal Killing of Elephants.**

17) Which of the following is not Mike site in India?

**Kaziranga Assam.**

18) Which of the following was not part of Earth Summit Agreements of 1992?

**Inclusive Development.**

19) Which of the following greenhouse gases is not included under Kyoto Protocol?

**Ozone.**

20) Which act provides for setting up of National Biodiversity Authority (NBA)?

**Biodiversity Act, 2002.**

21) Who is associated with the Bishnoi Movement?

**Amrita Devi.**

22) Which was started in 1973 to save the evergreen tropical forest in the Palakkad district of Kerala from being flooded by a hydroelectric project?

**Silent Valley Movement.**

23) Which environmental movement refers to as Greed Game Political Populism by environmentalists?

**Jungle Bachao Andola.**

24) When was the Project Elephant launched?

**1992.**

25) When was the government of India had launched the Project Snow Leopard?

**2004.**

26) Which animal is the symbol for the Worldwide Fund for Nature?

**Panda.**

27) Which is the largest remaining species of lizards in the world?

**Komodo Dragon.**

28) Which animal has the longest lifespan?

**Elephant.**

29) Which is the only type of bird which can fly backwards?

**The Humming Bird.**

30) Which is the tallest living mammal?



**Giraffe.**

- 31) Which is the world's largest type of grass?

**Bamboo.**

- 32) What type of creature is Pacific Sea Wasp?

**Jellyfish.**

- 33) Which is the only bird we get leather from?

**Ostrich.**

- 34) Which fruit is known as King of Fruits?

**Mango.**

- 35) Which tree is known as weeping wood?

**Rubber.**

- 36) Which fruit is known as poor man's fruit?

**Guava.**

- 37) Which fruit is known as love apple?

**Tomato.**

- 38) Which fruit is known as Queen of Fruits?

**Mangosteen.**

- 39) Which bird has migrated longest distance?

**Artic tern.**

- 40) What stands for BOD?

**Biochemical Oxygen Demand.**