MES COLLEGE ERUMELY

ASSIGNMENTS

RECORD BOOK FOR ASSIGNMENTS AND SEMINAR

MES COLLEGE ERUMELY

(Affiliated to M.G. University)

20 - 20

NAME: Josna Jacob

REG NO: 180011013672

CLASS NO: 05 COURSE: Nanotechnology

NAME OF PROGRAMME: M Sc electronics

RECORD BOOK FOR
ASSIGNMENTS AND SEMINAR

Name of Student..... Josna Jacob .....

Course.....

Programme..... M.Sc electronics .....

Assignment - 1

Topic..... Applications of Nanotechnology .....

Submitted on..07-02-2020.....Signature of the Student..... Josna .....

Sanctioned by.....

Signature of the Teacher..... Sumangala P.A .....

.....Grade Awarded..... 5 .....

Structure and Engineering

Nano enabled products are being developed for wide ranging applications in the construction industry. A few of them are listed below.

- Reinforcement of concrete with nano particles
- Self-cleaning glass
- Smog-eating concrete
- Nano-enabled wood.
- Intelligent Sensor to enhance the safety of buildings against natural and other calamities
- fire resistant coatings
- UV/IR reflecting windows.

The use of nano-silica in concrete has been reported to increase its mechanical strength as it results in better packing density. Also, it decreases the kinetics of chemical degradation of concrete by calcium silicate hydrate reaction and decreases water penetration in concrete, leading to better life and durability. Concrete reinforced with nano-TiO_2 or carbon nanotubes has been found to be remarkable increase in strength

and wear resistance. Similarly nanocomposite steel has been reported to have at least three time higher strength than conventional steel

Impregnation of nano-ZnO, Ag or TiO_2 particles in wood can help to reduce their biodeterioration. This could be a potential substitute for the current practice of using toxic chemical treatment to prevent bio-deterioration of wood. Wood itself is made of cellulose of a technology to extract these nanofibrils from wood can result in an economic substitute for fund composite-based construction material, since they are expected to be 10-100 times cheaper than carbon nanotubes.

One of the most important emerging application of nanotechnology in civil engineering could be the integration of sensors to monitor the integrity and safety of the construction

Automotive Industry

The next generation automobiles aims to be lighter, more fuel efficient and crash resistant. They use high strength to weight ratio frames, use eco-friendly energy sources, pollution free emissions, producer sensors and functional nanomaterials for enhanced safety and aesthetics. Nanotechnology can play a major role in realising many of these objectives enhance vehicle performance, convenience and safety. A few of these applications are listed below

- Carbon nanotube-based composites are being examined as a replacement for automobile frame due to their high strength and reduced weight. The unique combination of stiffness and toughness of nanopolymer composites will makes them ideal substitutes for steel in automobiles
- Nanoscale metal oxide ceramic catalysts can aid reduction of polluting particles in the emission gas. Nanocatalysts and membrane technologies will play a critical role in making fuel cells economically viable for replacing the internal combustion engine.

- Nano powders and coating can be used to enhance the durability of paint coating.
- Materials characterization methods, online sensors for the measurement of wear and abrasive for the adhesion of parts and layers are also being explored further developments targets the avoidance of lubricants via this layers on bearings and gliding elements.
- High efficency solar cell, hydrogen storage for fuel cell etc. are being developed as environment friendly fuel resources to desire future automotives.
- High - Sensitivity nano - enabled IR sensors for improved night vision
- Nano particle dispersion will enhance the thermal conductivity of fuel.
- Magnetic nanofluids are being developed to improve the efficency of shock absorbers. It is possible to change the viscosity of varying the viscosity dynamically.

Water Treatment And the Environment

Water is one of the most essential resources for living things. Although 75% of the earth's surface is covered with water, only 2.5% of the same is potable. Furthermore less than 1% of freshwater is accessible to humans. With extensive industrialization, the per capita water requirement has increased enormously. To produce one ton of steel about 215,000 litres of water will be needed. Hence the need for effective water management.

Nanotechnology can contribute to effective water management in many ways:

- Nano-membranes and nano-clays for water filtration and desalination
- Nano particle-activated waste water reuse systems.
- Nano sensors to monitor water quality against bacteria, heavy metals and even toxins.

Nano-enabled water treatment technologies include the use of nano-membranes and filters based on carbon nanotubes, nano porous ceramics, magnetic nanoparticles and other nanomaterials.

It has been shown that nano-filtration can lead to remediation of even brackish water. Carbon nanotubes function function as molecular fibers and allow water molecules to pass through them. Molecules that are bigger than the diameter of the CNT are filtered out. Also, as a consequence of their electronic state, a few smaller ions are also not permitted to enter through the Carbon nanotube Carbon nanotube membrane can reduce the cost of desalination Significantly. It is reported that the Use of nano-titanium dioxide and magnetic nanoparticles can decompose organic Pollutants and remove Salts and heavy metals, enabling waste water reuse.

other application of nano-filtration are

- Removal of heavy metals from ground water
- Removal of ~~heavy~~ pesticides from waste water
- Waste water recycling in Laundries
- Water softening

There are several conventional technologies in practice today to remove bioorganisms, toxins and impurities from water. It is well known that Saudi Arabia produces nearly 70% of its portable water by the desalination technology. Nanotechnology expected to result in economic solutions capable of reaching a wider cross section of people in the longer run. For effective remediation of contaminated water, particularly for removing heavy metal ions, various nanoparticles and nanomaterials

Removal of pathogens from water is essential to avoid several water borne diseases. It is believed that the use of nanomaterials like silver and titanium dioxide with antimicrobial characteristics can provide a viable alternative to the use of nanomaterials. Nanosensors could also be developed to detect toxic gases at very low concentrations in the atmosphere.

ASSIGNMENT

Submitted by :-

Ajmiya KM

Rollno : 03

BBA, S4

Submitted to :-

Mrs. Anumols

10/3/21

LAY OUT OF A REPORT

(Structure of a report) (contents of a report) (Format of a report).

The lay out of the research report means, what the research report should contain. A comprehensive lay out of the research report should contain:

a) Preliminary Section.

b) The main body.

c) The end matter.

a) Preliminary Section.

The report, in its preliminary pages, should carry title and date, followed by acknowledgements, in the form of 'Preface' or 'Foreword'. Then there should be a table of contents, followed by list of tables and figures so that any body reading the report can easily locate the required information in the report

i) Title page:

The title page of the typed research report usually bears the investigator's name, a statement about the course for which the study has been required, the date of submitting it and the name of the institution making the requirements. In report of studies not undertaken for any course,

the investigator's name, institution and the date of ~~Submi~~ completion of the work is indicated. In published report, they are replaced by the name of the publishers and the date and place of publication.

ii) Acknowledgement page:

In the acknowledgement page, the investigator acknowledges the guidance and assistance he has received in his studies. Acknowledgements should be expressed simply and thankfully.

iii) Preface or foreword:

A preface or foreword bear some initial remarks and a brief statement of the scope, aim and general character of the research.

iv) Table of contents

A well developed table of contents renders a good deal of assistance to a reader in choosing readily and judiciously what he should subsequently read carefully. It should at least the chapter headings, the headings of major subdivisions of the chapters and even the subdivisions.

v) List of tables and figures:

List of tables and figures must be shown immediately after the table of content.

b) Main body (Main text)

The main text provides the complete outline of the research report along with all details. Each main sections of the report should have the following sections. (i) introduction ii) Methodology. iii) Statement of findings iv) Conclusions and recommendations v) Summary of the report.

(i) Introduction:

Usually this is writing starts with an introduction specifying the context of the study. So it is the first part of the main body of the report. It usually includes the statement of the factors leading up to the choice of the problem, the purpose of the study, the value and the significance attached to the problem. Introduction should prescribe the problem at hand. The problem should be stated in a clear-cut and logical manner so that the reader can get sufficient insight from the very beginning. The problem should be defined in detail. The exact area of the investigation should be demarked; the sources of information should be mentioned. Technical terms used in the report should be defined carefully. The researcher should use his judgement while focussing on the issue relevant to the study.

c) End matter (Reference Section)

The end matter which comes after main text, is a separate section. It contains appendix, glossary, literature cited, index and Bibliography.

(i) Appendix:

The appendix includes letters, questionnaires, tests or other tools used in collecting data. Generally, the questionnaires, schedules and statistical data used and tables used are placed in the appendix as they help those willing to analyse the study more closely. Materials in the appendix must appear in exactly the same form as the one in which it has been used in the study. The purpose of the appendix is to provide a place for those items of the report that do not fit in to the main body of the research report. If they are included in the text, the brevity of the report will be spoiled. It is always better to make a brief mention in the report of the information that are incorporated in the appendix.

(ii) Glossary:

A glossary is the alphabetical listing of certain terms with their meaning used in the ~~thesis~~ hypothesis. Hypothesis which contains many local or regional terms need a glossary.

(iii) Literature cited:

This is a list of references cited in the text. This literature cited is generally arranged in the order in which the references are indicated in the text. This section serves the purpose of acknowledging the source of a quotation,

(2) Methodology:

This is the most important part of the main text of the report. It is the key to understand the study in the research. It deals with the procedure followed. It contains: (i) the objectives of researcher, (ii) the hypothesis relevant to the research study (iii) the research design (iv) the universe and the sample (v) the source from which the data are collected and methods applied for the collection of data (vi) the techniques used for presentation, analysis and interpretation of data and (vii) survey of related literature.

Every research has an objective and the researcher has to state this objective. Objective implies the purpose behind the study. In every research there is an attempt to test the hypothesis. The researcher has to incorporate the hypothesis with which he started the research. A research design is a plan of action to be carried out in connection with a research project. The researcher should explain the reasons for the selection of a particular research design, and their merits and demerits. Most of the studies are made from sample selected from the universe. The researcher in his report has to state the sampling method employed and the nature of the universe being studied. It is also advisable to deal with the merits and limitations of the sampling methods employed. The researcher should indicate the various sources from which he has collected

the data. He should also specify the methods employed for data collection. The report of the investigator should also state the techniques used for analysing the data. The techniques like correlation, regression, factor analysis discriminant analysis etc. are usually used for analysis purpose. A research worker has to be uptodate in his information about studies made already by others. References are made to such similar or related studies. Their evaluation is made for the benefit of the reader either in the introductory chapter or in the chapter on the problem, or elsewhere in a chapter.

(3) Statement of findings.

Findings are the result of the study. These findings, with supporting data in the form of tables and charts are presented in the report. Generally the findings extend over many sections and chapters. The number and length of chapters depends on the nature and magnitude of the problem being enquired into. Regarding the number of sections and pages, they are decided by the issues under consideration. If more than one issue related to the same subject is discussed, it is better to have more sections. All the results should be presented in logical sequence and split in to readily identifiable sections. All relevant results must find a place in the report. Negative and positive results should also be presented in the report.

(4) Conclusions and recommendations

The final unit of the report usually contains the conclusions the researcher has arrived at. Every research report should draw out, in a coherent and concise manner, the major conclusions of the study. Conclusions should be drawn with direct reference to the objectives of the study. The researcher, in this ~~closely~~ part of the report must be specific with reference to the hypothesis formulated by him. He has to indicate whether the hypothesis has been accepted ~~by him~~ or not. In his conclusion, the researcher has to indicate the contribution to his field of study. He should ~~clearly~~ indicate data on which his various conclusions are based. He should ~~indicate~~ data ~~on~~ clearly demarcate between the inviolable conclusions and his own interpretation of certain data. The researcher has to make his recommendations or suggestions in the concluding chapter for further study in the field ~~of~~ touched by the present research.

(5) Summary of the report:

A report is to contain a summary to the whole report also. This will help the reader to understand the contents of the report quickly. Summary should be prepared only after the full report is written.

Paraphrase or idea borrowed by the author.

(iv) Bibliography

Bibliography is a comprehensive listing of the works relevant to the study of the researcher. Bibliography includes all references to related materials. It finishes as clue to the quality of the report. The references in the bibliography are arranged alphabetically some times by topics, some times by geographical locations or by some other plan. In long bibliographies, references are quite often divided in to books, periodicals, reports and bulletins etc.

10/3/21

RESEARCH METHODOLOGY

Topic: Layout of a Report

Submitted by,
Aleena Thomas
IIIrd Sem RM (BBA)
Roll no-8
MES College ERUMELY.

10/3/21

LAY OUT OF A REPORT

(Structure of a report) (contents of a report) (format of a report)

The lay out of the research report means what the research report should contain. A comprehensive layout of the research report should contain

(a) Preliminary Section
(b) the main body
(c) the end Matter.

(a) Preliminary Section

The report, in its preliminary pages, should carry title & date, followed by acknowledged; in the form of 'Preface' or 'foreward'. Then there should be a table of contents, followed by list of tables and figures so that anybody reading the report can easily locate the required information in the report.

(i) Title page

The title page of the typed research report usually bears the investigators name, a statement about the course for which the

study has been required, the date of submitting it & the name of the institution making the requirement.

In respect of studies not undertaken for any course, the investigator name, institution & the date of completion of the work is indicated. In published reports, they are replaced by the name of the publishers & the date & place of publication.

(ii) Acknowledgement page

In the acknowledgement page, the investigator acknowledges the guidance & the assistance he has received in his studies. Acknowledgement should be expressed simply & tactfully.

(iii) Preface or foreword

A Preface or foreword bears some initial remarks & a brief statement of the scope, aim & general character of the research.

(iv) Table of Contents

A well developed table of contents serves a good deal of assistance to a reader in choosing rapidly & judiciously what he should subsequently read carefully. It should read the chapter headings, the headings of major subdivisions of the chapters & even the subdivisions.

(v) List of tables & figures

List of tables & figures must be shown immediately after the table of Contents.

(b) Main Body (main text)

The main text provides the complete outline of the research report along with all details. Each main section of the reports should have the following sections.

(1) Introduction (2) Methodology (3) Statements of findings. (4) Conclusions & recommendations. (5) Summary of the report

1. Introduction

Usually thesis writing starts with an Introduction specifying the contexts of the study. So it is the first part of the main body of the part. It usually includes a statements of the factors leading up to the choice of the problem, the purpose of the study, the value & the significance attached to the problem.

Introduction should prescribe the problem at hand. The problem should be stated in a clear cut & logical manner so that reader can get sufficient insight from the very beginning. The problem should be defined in detail. The researcher should be use this judgement while focussing on the issue relevant to the study.

2. Methodology

This is the most important part of the main text of the report. It is the key to understand the study in the research. It deals with the procedure followed.

It contains.

* the objectives of researcher.
* the hypothesis relevant to the research study.
* the research design.
* the universe & the sample.
* the source from which the ~~resources used for presentation~~ data are collected & methods applied for the collection of data.
* the techniques used for presentation, analysis & interpretation of data.
* Survey of related literature.

Every research has an objective & the researcher has to state his objective. objective implies the purpose behind the study. The hypothesis are presumptions about the study. In every research there is an attempt to test the hypothesis. The researcher has to incorporate the ~~plan~~ hypothesis with which he started the research. A research design is a plan of action to be carried out in connection with a research Project.

3. Statements of findings

Findings are the results of the study these findings, with supporting data in the form of tables & charts are presented in the report. Generally the findings extend over many sections & chapters.

The number & length of chapters depend on the nature & magnitude of the problem being enquired into. Regarding the number of sections & pages, they are decided by the issue under considerations.

4. Conclusions and Recommendations.

The final unit of the report usually contains the conclusion the researcher has arrived at. Every research report should draw out, in a correct & concise manner, the major conclusions of the study. Conclusions should be drawn with direct reference to the objectives of the study. The researcher in this part of the report, must be specific with reference to the hypothesis formulated by him.

5. Summary of the Report

A report is to contain a summary of the whole report also. This will help the reader to understand the contents of the report quickly. Summary should be prepared only after the full report is written.

(C) End Matter (Reference Section)

The end matter which comes after main text, is a separate section. It contain appendix, glossary, literature, cited index & Bibliography.

(1) Appendix

The appendix includes letters, questionnaries, tests or other tools used in collecting data. Generally the questionnaries, schedule & statistical data used & tables used are placed in the appendix as they help those wishing to analyse the study more closely. Materials in the appendix must appear in exactly the same form as the one in which it has been used in the study.

(ii) Glossary

A glossary is an alphabetical listing of unfair items with their meaning used in the thesis. Thesis which contains many local or regional items need a glossary.

(iii) Literature cited

This is a list of references cited in the text. This literature cited is generally arranged in the order in which the referes are indicated in the text. This section serves the purpose of acknowledging the source of a quotation, paraphrase or idea borrowed by the author.

(iv) Bibliography

Bibliography is a comprehensive listing of the books relevant to the study of the researcher. Bibliography includes all reference to related materials. It finishes a clue to the quality of the report. The referexie in the bibliography are arranged alphabetically sometimes by geographical location or by some other plan.

(3)

Advertisement Cuttings

Submitted To:
Dr. K. Ashok kumar
Sir.

Submitted by:
Praisy Abraham
B.Com CA (addl)
Roll no : 17

Raidco
TURMERIC POWDER
Raidco
Raidco
Raidco
Eastern
CHICKEN MASALA
Eastern
SAMBAR POWDER
Eastern
FISH MASALA
NIRAPARA
Chemba Idiyappam Podi
NIRAPARA
Easy Palappam Podi
Parida
Kaula
REFINED SUNFLOWER OIL
Kaula
Kaula
RICE BRAN OIL
KOKOS
Kaula


FLAMING
Grille
CHICKEN
juicy
CHICK POP
Chicking
meriiboy®
ICE CREAM
fruits festival
meriiboy
meriiboy
meriiboy
500 ml
Pure Cow Ghee
Dairy Sure
Free
200 gms
worth
₹83/-
Amulya
Dairy Whitener


Fibre
asianpaints
K P PATHROSE VAIDYAN'S
KANDAMKULATHY
VAIDYASALA
Impeccable Tomorrow
Eladi
Eladi
lenovo
P70
1.7 GHz True Octa Core - 64 Bit
12.7 cm (5 Inch) Display
13 MP Rear Camera
5 MP Front Camera
2 GB RAM/16GB
Expandable Upto 32GB microSD
4000 mAh Battery
16499
Mi Android TVs
Starting
₹11,499
+ ICICI Instant Discount Starting - ₹1,149
Samsung Side-by-Side Refrigerator
Flat
₹22,000 OFF
+ ICICI Instant Discount - ₹1,250
+ ICICI Cashback - ₹1,750
K.P.NAMBOODIRI'S
Hair Care Oil
MAHARA
JOINT FREE
MAKES JOINTS FLEXIBLE
A GMP Certified | ISO 9001:2008
ITALIAN COLLECTION


Prestige
LIFETIME WARRANTY
SCHOTT GLASS
nolta
Kottaram
Trading Company
Perfection in Trust and Quality
Luminarc

otto

SHIRTS · TROUSERS · JEANS · T-SHIRTS

VSTAR KIDS

Popees

BABY CARE

THE WAY WE CARE

MCR

Formals & Casuals

Bridal colours by Jolly Silks. World's favourite bridal collection.

JOLLY SILKS
THE DESTINATION OF FASHION AND SILKS


Dazzler ETERNA
Fair & Lovely
YARDLEY LONDON
English Rose
English Lavender
MEGLOW
premium fairness cream
mega dose of skin whitening concentrates
Net Wt. 50 g
Johnson's baby oil
Johnson's baby top-to-toe wash
Johnson's baby soap
Johnson's baby powder

Paragon

OFFICE
CHAPPAL

VKC pride
For the whole family

Submitted To

Dr Ashok kumar Sir,

ASSIGNMENT

ADVERTISEMENT and SALES

Submitted By
Tinu Thomas
B.com ca (Additional)
Roll No 44


www.manjilas.com
Double Horse
Bringing health to life!
ഒരു തകർപ്പൻ
HOT 'n' SPICY
രുചിഗാഥ...
Fish Masala
Meat Masala
Chicken Masala
Sambar Powder
Manjilas Food Tech Pvt. Ltd., Thrissur, Kerala.
info@manjilas.com
Now @ amazon.in
Distributor / Trade enquiries solicited. Customer Care No: 9446443333

GOOD MORNING WORLD

Kriztlé
Good Morning World

We believe that you deserve the best. So when it comes to bath and wash experiences, we bring you state-of-the-art designs from top designers across the world, manufactured at the best factories with special facilities and skills in different counties. Our wide product range will introduce you to a truly international feel. Rise up to a fresh world of ideas and a new way of life. Say Good Morning World.


Bath Tub

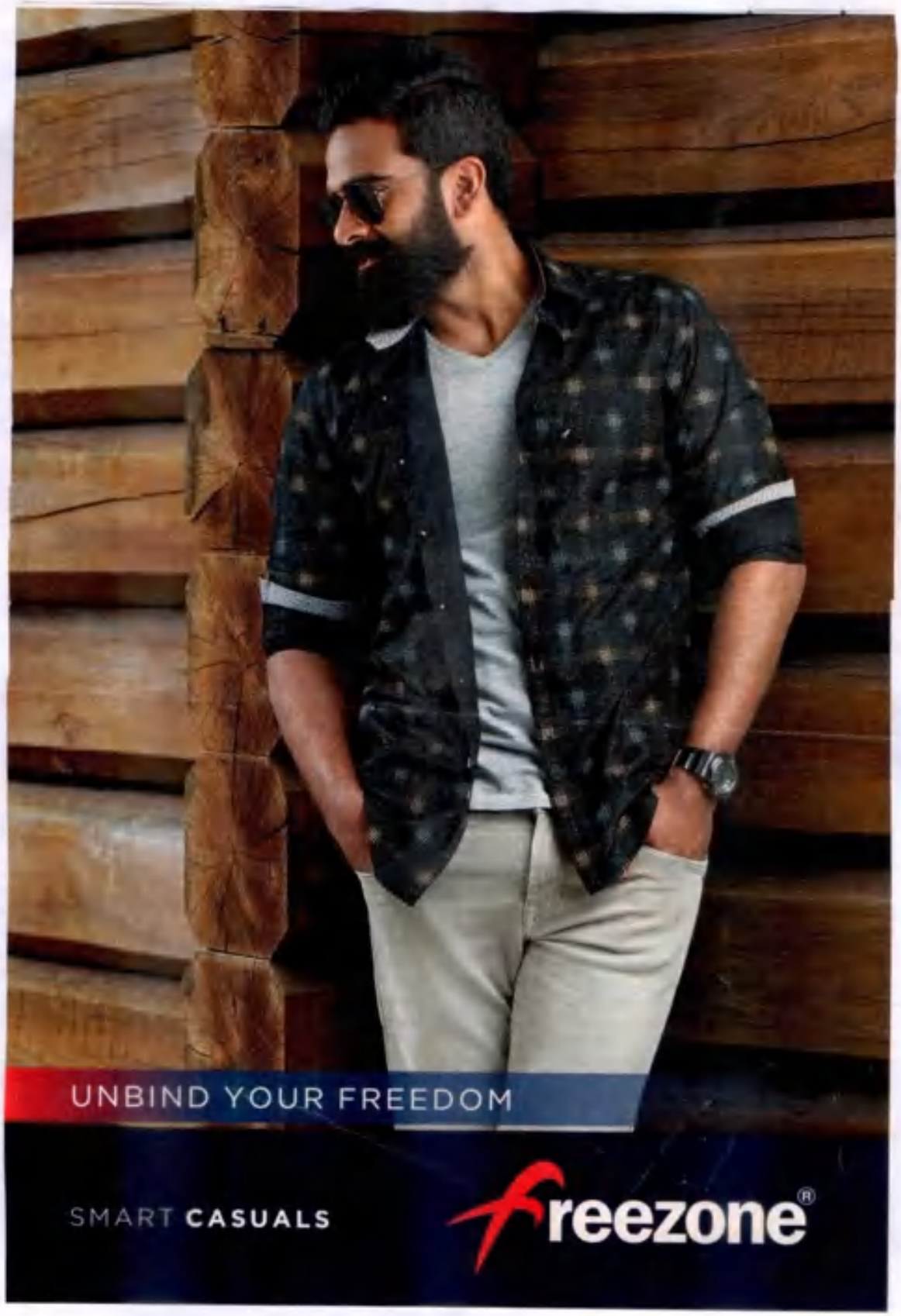

Shower Cubicle with Sauna


LED Mirror


Outdoor spa


Shower Enclosure


Shower Panel


UNBIND YOUR FREEDOM
SMART CASUALS
freezone®