# QUESTION PAPERS FOR END TERM THEORY EXAMINATIONS November/ December-2022



M.Tech., MTPT, M.Sc., MBA, EMBA, M.Des., 1<sup>st</sup>, 3<sup>rd</sup> & 5<sup>th</sup> SEMESTER

Roll No.....

1st Semester

MDES Program (Product design)

END TERM EXAMINATION

Nov/Dec-2022

DD511 Digital Representation Techniques

Time: 3:00 Hours

Max Marks: 40

Note: All Questions are compulsory.

The use of the Internet is allowed for research.

Assume suitable missing data, if any.

Q.1 Election Commission of India is planning to campaign on Voter's Education and Awareness during the year 2023. One of the deliverables includes a brochure of 3-4 pages to be designed to create awareness about accessible elections, educate people about the electoral process and raise awareness among the general public about the relevance and importance of voting and registration.

a) Design a brochure of 3-4 pages on the above themes.

[30 Marks] [CO-1]

b) Write a Concept note on the Problem identified, and the importance of representational information such as graphics, sketches, icons, or illustrations as an impactful factor for awareness and educating the public. Discuss keeping in mind the design you have created. (Word limit: 300)

[10 Marks] [CO-1]

Note:

1) Use visuals (icons, graphics, and sketches) to illustrate the crucial information related to the topic.

: A4 (landscape/ portrait) 2) Size 3) Color : Any color/ Black & white

4) Format : Pdf

Roll No.....

1st Semester

MDES Program (Interaction Design)

END TERM EXAMINATION

Narrative Building : DD513

Time: 3:00 Hours

Max Marks: 40

Nov/Dec-2022

Note: All Questions are compulsory.

Assume suitable missing data, if any.

Q.1

Attempt any four questions:

i) What is narrative building? Write the name of five writers or directors whose work you like.

ii) What are the different mediums to tell a story? Give five examples.

iii) Why are problems important in stories? How do you identify a story problem?

iv) How do you start writing a story? What is the biggest struggle one faces while writing a story?

v) How can one be a good storyteller in conversation? Give an [4x5=20 Marks] [CO-1] example.

Q.2

a) Where do you see yourself in five years? Write a story of 500 words and show this story through a storyboard, making at least ten frames. [10 Marks] [CO-1]

Attempt any one question:

b) What are the things we should keep in mind before making any Character? Create a character of your choice, and write what you thought while making it.

c) What are the three most important qualities you think an interaction designer must have? How Narrative building and storytelling will help you become a better designer.

[10 Marks] [CO-1]

Roll no......

Total no. of Pages: 02

I SEMESTER MDes

END TERM EXAMINATION

Nov/Dec-2022

DD515 User Centered Design

Time: 03:00 Hours

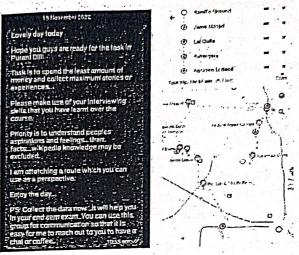
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Max. Marks: 40

Note: All questions are compulsory.

Cognitive activity for this question paper has started from this assignment. I hope you had done the reconnaissance on that day as per the instructions given in the message.



The meta theme for this paper is to understand Aspirations and Feelings of people.

- Q1. You are to document the different techniques that you have used to understand people as per the task. (5 Marks)
- Q2. Information Gathered. i.e. the kind of data and their categorization. (5 Marks)

-4

- Q3. Processing and allocating the data for their thematic analysis.
  (10 Marks)
- Q4. Analysis using multiple perspectives.

(10 Marks)

Q5. Discussion of the above Analysis.

(10 Marks)

PS: Please complete answers in 2nos A3 sheet. Students are allowed to bring stationary, photographs or any printed material used for documentation purpose. Mobiles Phone and Internet not allowed.

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I SEMESTER M.Des

END TERM EXAMINATION

Nov/Dec-2022

DD-517 Behavioural Dynamics in Design

Time: 03:00 Hours

Max. Marks: 40

Roll no.......373

Note: All questions are compulsory.

Based on the tasks, experiences and projects that you have gone through in the beginning of the semester we came up with numerous thematic areas and keywords. Every student was given a particular set of keywords which they experimented with. The mid semester evaluation was the ideation that was given to you to delve deeper into these areas. We did further discussion on these topics and we conversed towards crisp statements.

- Q1. Define the themes/keywords/areas that you had chosen over the course of the semester. (5 Marks)
- Q2. Show the application of your collected data Qualitative/ Quantitative/Mixed in refining your above mentioned ideas and themes. (10 Marks)
- Q3. Explain and describe the change in Behavioural Dynamics, Patterns, Mental Model etc. that you have observed and experimented with. The direction of these can be in finding
  - a) Psychophysiological Patterns
  - b) Change in Emotional Patterns etc.

(20 Marks)

Q4. Give a critique on the development of your own Philosophy and your Independent Thinking. (5 Marks)

Roll No.....

1st Semester

MDES Program (Interaction design)

END TERM EXAMINATION

(PD)

Nov/Dec-2022

DD521 Representation Techniques

Time: 3:00 Hours

Max Marks: 40

Note: All Questions are compulsory.

The use of the Internet is allowed for research. Assume suitable missing data, if any.

Q.1 Election Commission of India is planning to campaign on Voter's Education and Awareness during the year 2023. One of the deliverables includes a brochure of 3-4 pages to be designed to create awareness about accessible elections, educate people about the electoral process and raise awareness among the general public about the relevance and importance of voting and registration.

a) Design a brochure of 3-4 pages on the above themes.

[30 Marks] [CO-1]

b) Write a Concept note on the Problem identified, and the importance of representational information such as graphics, sketches, icons, or illustrations as an impactful factor for awareness and educating the public. Discuss keeping in mind the design you have created. (Word limit: 300)

[10 Marks] [CO-1]

Note:

1) Use visuals (icons, graphics, and sketches) to illustrate the crucial information related to the topic.

: A4 (landscape/ portrait) 2) Size 3) Color : Any color/ Black & white

4) Format : Pdf

Roll no.....

I SEMESTER

M.Des.

END TERM EXAMINATION

Nov/Dec-2022

## DD523 INDUSTRIAL DESIGN PROCESS AND PRACTICE

Time: 03:00 Hours

Max. Marks: 40

Note: All questions are compulsory.

Q.1 (a) What is ergonomics in the workplace? What are the benefits of ergonomics?

OR

- (b) What are the principles of ergonomics? Explain with proper [7 Marks] description and illustrations.
- Q.2 Explain the product development process and its phases in detail.

  Also discuss the one concept evaluation model. [7 Marks]
- Q.3 Explain steps to identify needs with example. [6 Marks]
- Q.4 Can you design a solution that allows the user to better manage the cables/cords/wires of their multiple devices? Due to the Covid-19 pandemic and sudden shift to Work from Home culture has affected the employees across many industries in various ways. Multiple members of a single family (from the eldest to the youngest) working from home or studying from home have to stay connected with all their devices throughout the day and due to the neglected evolution of the power accessories we observe a chaos that needs to be resolved. The future solution by you should solve the following problems: (i)Better/Efficient Organization (ii)Modular (iii) Good Looks (iv) Easy to clean/manage/maintain (V)Eco-friendly and sustainability consider for the use of materials [20 Marks]

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Total no. of Pages: 02 Roll no..............

MDes\_SEMESTER\_I

### END TERM EXAMINATION

Nov/Dec-2022

DD525 Material and Processes for Designer

Time: 03:00 Hours Max. Marks: 40

Note: All questions are compulsory.

Q1 What material properties you would look for while designing a chair?

List down the various components/parts of an office chair and suggest what material you would select for different parts/components giving reasons.

[10 marks]

Q2 Explain in detail any two types of metal machining processes.

OR

Explain with examples various types of composites. Also list the advantages and disadvantages of using composites. [10 marks]

Q3 For the below mentioned list of elastomers select any four and write down the key properties and applications of the selected materials. [10 marks]

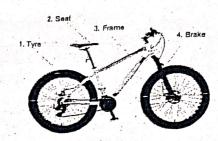
- . Neoprene rubber
- . Silicone rubber
- . Nitrile rubber
- . EPDM rubber
- SBR rubber
- · Butyl rubber
- · Flurosilicone rubber

Q4 For the below mentioned sheet metal forming processes explain any two processes:

- 1. Curling.
- 2. Hydroforming
- 3. Deep drawing.
- Spinning.

[5 marks]

Q5 With reference to the image shown below explain in detail what materials you would select for the parts labelled 1 to 4? Also give reasons. [10 marks]



Q6 Which manufacturing process can be used to produce the following objects? Also give reasons: [5 marks]

a) Wooden artefact (jali)



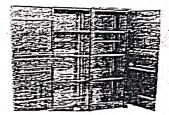
b) Sheet metal bowl



c) Plastic shirt buttons



d) Sheet metal cabinet



I SEMESTER M.Des

END TERM EXAMINATION

Nov/Dec-2022

Roll no .....

DD-527 Behavioural Dynamics in Design

Time: 03:00 Hours

Max. Marks: 40

Note: All questions are compulsory.

Based on the tasks, experiences and projects that you have gone through in the beginning of the semester we came up with numerous thematic areas and keywords. Every student was given a particular set of keywords which they experimented with. The mid semester evaluation was the ideation that was given to you to delve deeper into these areas. We did further discussion on these topics and we conversed towards crisp statements.

- Q1. Define the themes/keywords/areas that you had chosen over the course of the semester. (5 Marks)
- Q2. Show the application of your collected data Qualitative/ Quantitative/Mixed in refining your above mentioned ideas and (10 Marks) themes.
- Q3. Explain and describe the change in Behavioural Dynamics, Patterns, Mental Model etc. that you have observed and experimented with. The direction of these can be in finding
  - a) Psychophysiological Patterns
  - b) Change in Emotional Patterns etc.

(20<sub>2</sub>Marks)

Q4. Give a critique on the development of your own Philosophy and (5 Marks) your Independent Thinking.

Roll no.....

1st SEMESTER

M.Des

END TERM EXAMINATION

Nov/Dec-2022

COURSE CODE DD531 COURSE TITLE: Visual Culture and **Media Practices** 

Time: 03:00 Hours

Max. Marks: 40/50

Note: Research topic may be floated 24hrs before franctio allowing to conduct the necessary research. Make Suitable Assumption

Q.1 Do a preliminary research on the following topic-

[40][CO1]

"Differences between male and female behaviour associated with Smartphone"

In light of your research, design two advertisements for a mcl phone. Choose any brand and model.

One advertisement should be designed for a male group and another for a corresponding female group.

Deliverables-

- a) Two advertisements
- b) Short note on research findings relevant to the design problem and design decisions taken in light of the same. (not more than 5 lines)

## 1<sup>ST</sup> SEMESTER M.DES.

END TERM EXAMINATION COURSE CODE: DD533

NOVEMBER-DECEMBER-2022 COURSE TITLE: COMMUNICATION DESIGN FUNDAMENTALS

Time: 03:00 Hours

Max. Marks: 40

Note: Answer all the questions. Assume suitable missing data, if any.

- Q1. Design a comic book for kids above 08+ year old of a superhero. Follow the mentioned below instructions:
- a) Design the superhero and all the important character of the comic
- b) Comic should have a min. of 12 windows of stories & max. 15 windows
- c) Narrate the story on the topic: Addiction/ sedentary lifestyle / Love for nature
- d) Discuss the design elements that you have used and how they are justified with the comic book you have designed. [1x40]

o'r.

Do branding for a young arising brand of accessories (personal and general accessories) who deal with fast fashionable goods for millennial. Follow the mentioned below instructions:

- e) Design a logo and brand mascot for the brand
- f) Discuss what the brand talks about, its image and brand philosophy
- g) Design a min. of 5 7 products & packaging for the brand
- h) Discuss the design elements that you have used and how they are justified with the brand philosophy and design that you have created

[1x40]

Roll no.....

#### First Semester-M.DES

#### END TERM EXAMINATION

NOV-2022

DD 535 IMAGE FABRICATION & VISUALISATION.

Time: 3:00 Hours

Max. Marks: 40

Q.1 Theory - Attend all [1 Mark each x 10]

[Marks - 10] {CO-1}

- 1) Which of the following is the abbreviation of JPEG?
  - a) Joint Photographic Experts Group
  - b) Joint Photographs Expansion Group
  - c) Joint Photographic Expanded Group
  - d) Joint Photographic Expansion Group
- 2) What are the categories of digital image processing?
  - a) Image Enhancement
  - b) Image Classification and Analysis
  - c) Image Transformation
  - d) All of the mentioned
- 3) Which of the following process helps in Image enhancement?
  - a) Digital Image Processing
  - b) Analog Image Processing
  - c) Both a and b
  - d) None of the above
- 4) Which of the following is an example of Digital Image Processing?
  - a) Computer Graphics
  - b) Pixels
  - c) Camera Mechanism
  - d) All of the mentioned
- 5) Which characteristics are taken together in chromaticity?
  - a) Hue and Saturation.
  - b) Hue and Brightness
  - c) Saturation, Hue, and Brightness
  - d) Saturation and Brightness

WY

[Marks - 10] (CO-2) 6) Which of the following is the first and foremost step in Inage Processing? Q.2 Theory -Attend any five [2 mark each]
a] What is Adobe Photoshop? Explain. What is Gradient in Photoshop? a) Image acquisition Can you explain smart object in Photoshop? b) Segmentation How do you crop an image in Adobe Photoshop? c) Image enhancement What Magic wand tool does? d) Image restoration How do you print the grid in Adobe Photoshop? determines the quality of a digital image. Explain the difference between PSB and PSD? a) The discrete gray levels b) The number of samples c) discrete gray levels & number of samples Q.3 Practical - Attend any Two [10 mark each] [Marks - 20] {CO-2} a] Do a digital caricature of Monalisa, a painting by Pablo Picasso.
b] Do a digital illustration of DTU main entrance gate.
c] Do imagine a Graffiti for Mic Mac canteen, DTU. d) None of the mentioned 8) Which of the following tool is used in tasks such as zooming, shrinking, rotating, etc.? a) Filters b) Sampling c) Interpolation d) None of the Mentioned 9) Which of the following is the role played by segmentation in image a) Deals with property in which images are subdivided successively into processing? b) Deals with partitioning an image into its constituent parts or objects smaller regions c) Deals with extracting attributes that result in some quantitative d) Deals with techniques for reducing the storage required saving an image, or the bandwidth required transmitting it. The effect caused by the use of an insufficient number of intensity levels in smooth areas of a digital image. a) False Contouring b) Interpolation c) Gaussian smooth

340

d) Contouring

Roll No ....

1st Semester

MDES Program (Visual Communication) Nov/Dec-2022

END TERM EXAMINATION

DD537 Video, Sound & Cinematography

Time: 3:00 Hours

Max Marks: 40

Note: All Questions are compulsory. Assume suitable missing data, if any.

a) Make a detailed storyboard from the below story within 12 frames. [40 Marks] [CO-1]

Ahalya was Brahma, the Creator 's prized creation. She was the most beautiful female he ever created, into whose creation he poured all his creativity, and he gave her the name Ahalya, meaning "the one with no ugliness" in Sanskrit. Knowing that Indra would invariably covet her, Brahma sent Ahalya to live in the hermitage of Sage Gautama until she reached puberty. When she grows up, Gautama returns her to Brahma. Pleased with the sage's asceticism, Brahma bestows Ahalya to him as his wife. Indra is enamoured by Ahalya and is thus jilted when she is married to Gautama. He plans his union with her. One day when Gautama is away, he enters the hermitage disguised as Gautama and requests intercourse with her. The sage returns in the meantime, catching the disguised Indra and Ahalya making love. Outraged, he curses Indra to be covered in a thousand female genitals and Ahalya to be turned to stone. Ahalya begs for his forgiveness. Moved he grants her a boon that she would be released from he stoned form when the sacred feet of the son of Ayodhya (Lord Rama) touch her. He reduces Indra's curse as well, reducing the genitals to a thousand eyes. Centuries later, Lord Rama on his way to Mithila, for Sita's swayamvar passes through the hermitage, the dust from his feet touches the stone that is Ahalya. The curse is broken and Ahalya returns to her human form. Lord Rama touches her feet, proclaiming

her innocence. Gautama is moved when he hears Lord Rama's proclamation and takes her back as his wife. Ahalya is thus delivered at the hands of Lord Rama.

OR

i) Describe the entire process of making a film with all steps involved in detail using illustrations and sketches. Give relevant examples of films in elaborating the process. [20 Marks] [CO-1].

ii) What is the impact of films on society according to you? Describe the importance of regional films for a country in detail. [20 Marks] [CO-1]

Roll No.....

1" Semester

M.Des

End Term Examination

Nov/Dec-2022

DD 551

Sketching and Rendering

Time: 03 Hours

Max. Marks: 40

JURY

1. End Semester project

(30 Marks)

Presentation

A3 size poster (4 A3 as single poster and other a3 posters can be realistic renders or designers choice).

2. Physical Model- Display.

(10 Marks)

Roll No.....

1" Semester

M.Des

End Term Examination

Nov/Dec-2022

DD 553 M

Model Making

Time: 03 Hours.

Max. Marks: 40

Select an artwork from web study and iterate with your interpretation (doddle/sketches) and convert the thought into a model/ sculpture.

Model size minimum 30cm X 30cm X 30cm



Designer Pabilo Picasso



The Kiss -Sculpture ....



YOUR INTERPRETATION

I SEMESTER M.Des

END TERM EXAMINATION

DD555 Computer Aided 3D Modelling Max. Marks: 40

Nov/Dec-2022

Roll No......

Time: 3:00 Hours Note: All questions carry equal marks.

Assume sultable missing data, if any. Q1 is compulsory, Attempt any three problems out of rest five question. submit your responses in soft file as well (pdf). Any modelling tool can be used.

Write a short note on

[10 marks]

a. 2d Vs 3d

b. Advantages of CAD

c. What is Drawing Entities

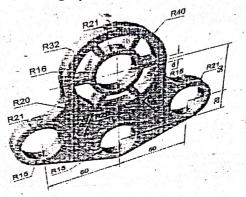
d. Geometric Modelling.

e. Geometric Modelling Techniques

Q.2 Discuss about CAD (computer-aided design) file formats.

[10 marks]

Q.3 Develop a Solid model as given below with proper dimensions and present in Orthographic and Isometric projection. [10 marks]



Q.4 Develop a Solid model of toothbrush (flexible to assume feasible [10 marks] dimensions and use minimum two colours).

Develop a Solid model of a Spoon using surface tool.[10 marks]

Q.6 Develop a Solid model of Water Park Slide.

[10 marks]

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Roll No.....

1st Semester

M.Des

End Term Examination

Nov/Dec-2022

DD 557 Physical & Cognitive Dynamics in Vehicle Design

Time: 03 Hours

Max. Marks: 40

Note: Both Part 1 and Part 2 are compulsory.

In part one there is internal choice.

#### Part 1

Max Mark 10

Go to Tesla Model X Owner's Manual.
Go through "Opening & Closing" or "steering /Auto Pilot" (link given below)
And youtube video
https://www.youtube.com/watch?v=QDM2UiGxbeE

https://www.tesla.com/ownersmanual/2015\_2020\_modelx/en\_us/GUID-8C936870-B3AE-46DE-B209-63434EBF7C1E.html

- . Opening and Closing
  - Keys and Doors
  - · Windows
  - o Rear Trunk
  - Front Trunk
  - Interior Storage and Electronics
  - Sun Visors

https://www.tesla.com/ownersmanual/2015\_2020\_modelx/en\_us/GUID-32E9F9FD-0014-4EB4-8D96-A8BE99DBE1A2.html

#### · Autopilot

- About Autopilot
- Traffic-Aware Cruise Control
- o Autosteer
- Navigate on Autopilot
- · Traffic Light and Stop Sign Control
- Autopark

Q 1. Evaluate opening Closing or Auto Pilot on below points.

Mental - How mentally demanding was the task?

Physical - How physically demanding was the task?

• Temporal - How hurried or rushed was the pace of the task?

• Performance – How successful were you in accomplishing what you were asked to do?

• Effort – How hard did you have to work to accomplish your level of performance?

• Frustration - How insecure, discouraged, irritated, stressed, and annoyed were you?

• Intuitiveness – How intuitive, usable, and easy was it to use the system?

• Complexity - How complex, difficult, and confusing was it to use the system?

Part 2 Max Marks 10
Q2 Give your alternative design for any one of features given
below enumerating advantages over existing.
Steering
Key
Doors

Sun Visor

Total No. of Pages: 01 Roll No..... SEMESTER M.Des END TERM EXAMINATION Nov/Dec-2022 DD601 Organizational model for Entrepreneurship Max. Marks: 40 Time: 3:00 Hours Note: Assume suitable missing data, if any Q 1. What as per you is "Entrepreneurship"? Write a case study of an organization working in the field of "Social Entrepreneurship". A case study can include the following: Executive Summary, Objectives, Background, Case Evaluation, Conclusion, etc. [10 Marks][CO1] Q 2. Classify the various types of Business Plans. Elaborate on any one of the Business Plans used by an Indian unicorn company/Organization in detail. [10 Marks][CO2] Q 3. What is IPR? Is it beneficial for the organizations? Support your answer with an example citing a real company's case study. [10 Marks][CO3] Q 4. What is Ethics? Is ethics important for a business? Support your answer with a minimum of 4 valid logical points. [10 Marks][CO4] Q 5. Answer the following question:

a. What is ROI? Explain it in detail.

[5 Marks][CO1]

b. What is NDA? Explain it in detail.

[5 Marks][CO3]

Q 6. Write a short note on the following:

a. Code of Conduct?

[5 Marks][CO4]

b. Investment Model.

[5 Marks][CO2]

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Total no. of Pages 01

Roll no.....

3rd SEMESTER M.DES.

END TERM EXAMINATION COURSE CODE: DD613

NOVEMBER – DECEMBER -2022 COURSE TITLE: DESIGN FOR SOCIETY AND SERVICE DESIGN

Time: 03:00 Hours

Max. Marks: 40

Note: Answer all the questions. All questions carry equal marks. Assume suitable missing data, if any.

Q1. Cities like Kerala, Bengaluru and Mumbai are suffering from major water shortage. Having number of water resources, still there is a scarcity of drinking water as most of the fresh water lakes and rivers are filled with pollutants. This causes a lot of disturbances and imbalance in every citizen's daily lifestyles. Design a system which can be adaptive at house hold level to save water or reuse water at maximum level.

or

Visually impaired people faces a lot of problem in their daily lifestyle for basic works like crossing a road, or boarding a metro or taking stairs or lift which may affect their confidence level. Design a system which can be adaptive at societal level to make the infrastructure more user-friendly for a visually impaired person.

Select any of the problem statement from above and Explain what would you like propose as solution.

Discuss the points of consideration & preferences you have taken while designing and what is the action plan?

Discuss different stakeholders and their duties.

[1x40]

Roll no.....

MDes\_SEMESTER\_III

END TERM EXAMINATION

Nov/Dec-2022

DD623 Strategic Design Management

Time: 03:00 Hours

Max. Marks: 40

Note: All questions are compulsory.

1. Q.1 Given the pollution levels in NCR, Air purifiers are a sought after product. Please map the product using a Design management model and identify the stakeholders and their motivation including their problems. [20] [CO#1]

Q.2 Hostel accommodation is available for outstation students of DTU. Please map the experience of the students who wish to avail of this facility. Using any Design Management models, please map the Stakeholders & Users. [20] [CO#2]

Roll No.....

3<sup>rd</sup> Semester MDES

END TERM EXAMINATION

Nov Dec-2022

DD633 Major Campaign Planning & Design

Time:3:00 Hours

Max Marks: 40

Note: All Questions are compulsory.

Assume suitable missing data, if any.

Q.1

Research calendar art with aspects such as religious, non-religious, business formats, and social cause branding by collecting information and visuals. Collect and create a mood board based on the images sorted.

You are designing for a brand that targets a young adult audience. To create goodwill, you are promoting a social cause of your choice. Using signs and symbols representing the brand (image) and promoting the cause,

Design the following:

A digital calendar page representing any month of a year (through concept and content) using graphic software. (Size A4, multicolor, PDF format)

Note: Attach all the reference materials and the printout of your design along with the design submission. [25 Marks] [CO-1]

Q.2 Answer any one from the following with illustrative examples:
a) What is calendar art? Discuss the visual format in a calendar in detail.

OR

b) Discuss the similarities between a calendar and a package design in branding. [15 Marks] [CO-1]

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Total no. of Pages: 01

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Roll no .....

III SEMESTER

END TERM EXAMINATION

Nov/Dec-2022

DD635 Advanced Animation and Gaming

Time: 03:00 Hours

Max. Marks: 40

Note: All questions are compulsory.

Q.1 Animate the upcoming Paris 2024 Olympics Official logo.
(20 Marks)

Q.2 Make a New Year 2023 wish post (in motion).

(20 Marks)

-End---