



UNIVERSITY OF RUHUNA

Faculty of Engineering

End-Semester 4 Examination in Engineering: November 2016

Module Number: IS4205

Module Name: Aesthetics and Design

[Three Hours]

[Answer all questions]

Q1. (a) Choose one 'Art Element' and one 'Design Principle' from the following list and explain them. You should clearly name which one is the 'art element' and the 'design principle' and illustrate your answers with examples.

- Scale & Proportion
- Form
- Space
- Texture
- Value
- Balance
- Line
- Repetition or Pattern
- Shape
- Focal Point

[3 Marks]

(b) Imagine that you were invited to visit the annual art exhibition of the Art Faculty of a university.

All the paintings displayed at the exhibition had been clearly and successfully created to express the ideas of their respective artists. The Figure Q1, shows one of those paintings displayed at the exhibition. How do you appreciate the painting by using the vocabularies of Art Elements and Design Principles?

Your answer should include all the good and bad values of the painting.

Note: Label all Art Elements and Design Principles on the picture in Figure Q1 and attach the Figure Q1 with your answer book.

[5 Marks]

(c) Why are the Elements of Art & the Design Principles important?

[2 Marks]

Q2. (a) Colour is something which is used by everyone to delight and also fortify their living environment by its stimulating effect.

i) Name the three properties of colour.

ii) Explain the following terms in details;

- Tint
- Shade
- Tone
- Colour Value

iii) What is colour intensity?

iv) Normally, artists change the colour intensity while creating their 'artwork'. Describe four methods that they can use to change the colour intensity.

[9 Marks]

(b) Colour theory can be broken down into three parts. Understanding each part of colour theory will help you to understand better its importance in the creation of 'Art Work'.

i) Name the three parts of the colour theory.

ii) Explain one part of colour theory mentioned above. Illustrate your answer where it is necessary.

[6 Marks]

Q3. (a) i) What is man-made environment?

ii) As human being, we would like to live in beautiful houses and to have an attractive outdoor environment surrounding it. So, your family too wants to redesign your existing home garden in order to have a very beautiful and an attractive place for all family members and the visitors.

How do you assist your family by applying your knowledge & skills in aesthetics and design theories that you studied in the university to convert your home garden to a very attractive and aesthetically pleasing place?

Note: Your answer should clearly explain all the design techniques and principles that you are going to apply. Also, draw the proposed layout of your home garden.

[5 Marks]

- (b) i) What is Interior Design?
- ii) You are invited to visit an ongoing housing project consulted by one of your friends. At the site, you noticed no. of problem areas as mentioned as below,
- Considerably small office room & dining room areas.
 - Very low ceiling in the living area.
 - Corridor leading to rear verandah & toilet was very narrow.
 - The (above) corridor seems to be dark even at daytime.

Your friend too had identified the same problems that you found and he is looking for proper solutions for each of them. So, how would you help him to get rid of those shortcomings by using techniques of interior design & design principle which you learnt at the university.

[5 Marks]

Q4. (a) What do you mean by 'Good Taste' and 'Bad Taste'?

[2 Marks]

- (b) i) Briefly explain the terms of 'Structural Design' and 'Decorative Design' which are relative to the field of 'Art & Design'.
- ii) "Gold Stein lists four requirements for a good 'Structural Design' when an object is intended for use." They are the pre-requisites for a good 'Structural Design'. Name the four requirements for a good 'Structural Design'.

[5 Marks]

(c) Prepare a list of expressive qualities or functions of colours.

[3 Marks]

Q5. In present day context, most of the government institutions are conducting nursery and day-care centers within the premises of their work places; as an extra support for their employees.

Considering the success of this concept, government wanted to introduce this system to the government sector universities too. Accordingly, the administration of a university requested from each faculty to submit the proposals on the proposed project for the benefits of employee's kids.

However, the administration of the faculty decided to convert an existing single storied-building 'A' and use the surrounding area as shown in Figure Q5, for the above purpose. Also, the administration wants to obtain the students' involvement and sharing of their design skills & creative ideas for

the project proposals.

According to the project information, it has been divided into 2 sections for the convenience of processing the work.

- (a) The task to be done in the section one (Regarding the building 'A').
- i) Convert the existing interior of the building 'A' as an environment suitable for kids.
 - ii) Change the outer appearance of the building 'A', so that it is pleasing and attractive to the kids' minds.
 - iii) Clearly mention all the design techniques that you wish to apply to change the appearance of outdoor and indoor of building 'A'. Also, for each and every change, state the reasons for making them.

[5 Marks]

- (b) The tasks to be done in section two regarding the outdoor area surrounding the building.
- i) Prepare the 'design program' to fulfill the requirements of a nursery and daycare center.
 - ii) Design an attractive and safe garden area for kids' entertainment on the given site plan shown in Figure Q5.
 - iii) Mark all the outdoor activity areas clearly on the proposed layout plan.
 - iv) Clearly mention what sort of design techniques that has to be used to achieve the required beauty, expression & the function of this proposed nursery and day-care center.

NOTE:

- You are not provided a sketch of the building 'A'. You will have to imagine a single storied building which is L-shaped as the building 'A'.
- Draw colour perspectives, sketches for further explanation of your ideas and attach them with the answer book.
- You are not allowed to demolish and reconstruct the building 'A' or replace the building items such as, doors, windows, lighting fixtures, ceiling, floor finishes, etc.
- Sketch your design on the given site plan in Figure Q5 and attach it with the answer book.

[10 Marks]



Figure Q1

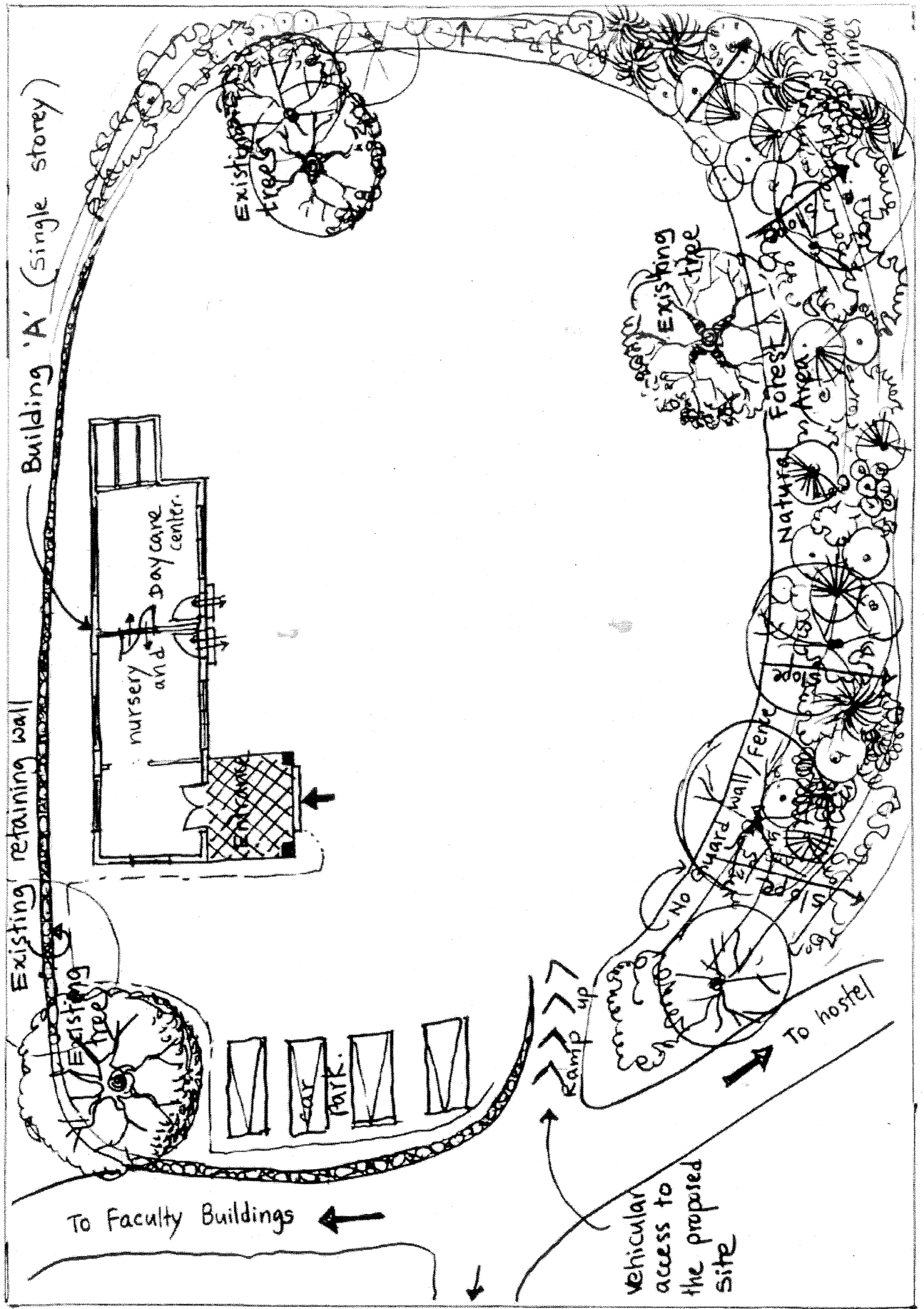


Figure Q5