

Total No. of Questions : 5]

SEAT No. :

P621

[Total No. of Pages : 1

[4168] - 1

**Second Year B.Des (Product Design)**

**ERGONOMICS - II**

*Time : 3 Hours]*

*[Max. Marks : 100*

*Instructions to the candidates:*

- 1) *All questions are compulsory.*
- 2) *Figures to the right indicate the marks.*
- 3) *Elaborate with sketches wherever necessary.*

**Q1)** Write short noted on any four: **[20]**

- a) Ergonomics and its types.
- b) Stereotypes.
- c) Man & Machine interface.
- d) Importance of ergonomics in Design process.
- e) Perceived Affordance.

**Q2)** Elaborate Design concerns and considerations while designing a hand tool. Elaborate with sketches and examples. **[20]**

**Q3)** What are different types of controls and where are they recommended and why? **[20]**

**Q4)** What are different types of Grips and where are they used? Elaborate with sketches. **[20]**

**Q5)** Describe with the help of appropriate sketches the various factors to be considered while designing the ergonomically comfortable chair. **[20]**

OR

Elaborate any one product of your choice with sketches which you feel is ergonomically comfortable and why?



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SEAT No. :

P622

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[4168] - 22

**Second Year B.Des. (Product Design)**

**MATERIALS & PROCESSING - II**

**(Sem. - IV)**

*Time : 3 Hours]*

*[Max. Marks : 100*

*Instructions to the candidates:*

- 1) *Attempt any five questions.*
- 2) *All questions carry equal marks.*

**Q1)** Explain ferrous / non-ferrous material. Also explain, how based upon carbon percentage, steel is defined. Explain the application of each grade of steel.

**Q2)** Define grades of stainless steel and its application. Explain how the property of stainless steel is obtained in the material.

**Q3)** Explain in brief (any four):

- Property and application of Nylon.
- Property and application of Acrylic.
- Rotational moulding.
- Transfer moulding.
- Blow moulding.
- Low carbon / Medium carbon / High carbon steel.

**Q4)** Explain the Injection moulding process in detail with sketches. Sketch carries 10 marks in this question.

**Q5)** Explain the rotational moulding process with a detail sketch. Suggest household products which can be produced with the process. Sketch carries 5 marks in this question.

**Q6)** Explain the thermoplastics and thermoset family of polymer. Explain with 3 materials from each family.

**Q7)** Explain Compression moulding and transfer moulding in detail. Give examples of products made out of this process. Explain why the polymer used here can't be recycled.





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SEAT No. :

P908

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[4168] - 33

T.Y. B.Des. (Set Design)

HISTORY OF CINEMA & THEATRE

(Sem. - VI)

Time : 3 Hours]

[Max. Marks : 100

Instructions to the candidates:

- 1) All questions are compulsory.
- 2) Figures to the right indicate full marks.
- 3) Draw sketches wherever required.

**Q1)** Describe a typical mosque: draw the elements in the mosque. [20]

OR

Describe evolution of mosque with respect to the typical elements.

**Q2)** Write a note on (any four): [20]

- a) Calligraphy.
- b) Islamic art.
- c) Tiling.
- d) Styles of arches.
- e) Ceramics.

**Q3)** Write a note on Taj Mahal with illustrations. [20]

**Q4)** Write a note on (any four): [20]

- a) Lumerire Brothers.
- b) George Eastman.
- c) Dadasaheb Phalke.
- d) Etienne Jules Marcy.
- e) Louis Daguerre.

**Q5)** Describe various Indian theatre forms. [20]

OR

Describe various types of Proceniums.



Total No. of Questions : 12]

SEAT No. :

**P909**

[Total No. of Pages : 2

**[4168] - 34**

**Third Year B.Des. (Set Design)  
Light and Camera - II (Sem. - VI)**

*Time :3 Hours]*

*[Max. Marks :100*

*Instructions to the candidates:-*

- 1) Figures to the right indicate marks for the respective questions.*
- 2) Attempt any 5 questions out of Question No. 1 to 7.*
- 3) Attempt any 2 questions out of Question No. 8 to 11.*
- 4) Question No. 12 is compulsory.*
- 5) Draw proportionate sketches wherever necessary.*

- Q1)* What is the purpose of Lighting in Cinema and Television? Why lighting is referred to as an art? [8]
- Q2)* Explain the importance of Visual Designing w.r.t. Cinema and Television.[8]
- Q3)* What is RGB and CMYK? [8]
- Q4)* Explain the concept of white Balance and its importance. How it is done?[8]
- Q5)* Give short note on - Director of Photography, Production Designer. [8]
- Q6)* What types of films used in filmmaking? Explain their merits and demerits.[8]
- Q7)* Give name of ten famous cinematographers from Hindi Film Industry with their films. [8]
- Q8)* Explain Three Point Formula for lighting in detail. [15]
- Q9)* Explain composition of a frame for film making. [15]
- Q10)* What is visual style and lighting style with reference to cinema? [15]

*P.T.O.*

**Q11)** What equipment and accessories do we use for basic lighting for video productions? Explain their applications. **[15]**

**Q12)** Make detailed storyboard with probable sound for following actions (Any 3) **[30]**

- Children playing cricket in a village.
- People purchasing south Indian menu from a hawker on a busy city street corner.
- A mother is preparing her child to go to school.
- People swimming in swimming pool.
- A mechanic repairing a car in a car service centre.



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**P623**

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**[4168] - 3**  
**Second Year B.Des (Product Design)**  
**HISTORY**

*Time : 3 Hours]*

*[Max. Marks : 100*

*Instructions to the candidates:*

- 1) *All questions are compulsory.*
- 2) *Figures to the right indicate the marks.*
- 3) *Elaborate with sketches wherever necessary.*

**Q1)** Write short notes on: **[20]**

- a) Michelangelo.
- b) Pop Art.
- c) Art. Nouveau.
- d) Bauhaus.

**Q2)** Describe impact of industrialization on product design concepts. Explain the impact of innovative technologies on product design also. **[20]**

**Q3)** Discuss principles of Bauhaus. With respect to: **[20]**

- a) Design Philosophy.
- b) Adaption of technology.
- c) Use of materials.

**Q4)** Write evolution of a product of your choice. **[20]**  
w.r.t.

- a) Form.
- b) Material.
- c) Adaption of technology.
- d) User.

**Q5)** Write short notes on (Any Four): **[20]**

- a) Marcel Bruer.
- b) Mackintosh.
- c) Walter Gropius.
- d) Jonathan Eves.
- e) Rashid Karim.



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P624

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[4168] - 4

**Second Year B.Des. (Set Design)**  
**MATERIALS & CONSTRUCTION - II**

*Time : 3 Hours]*

*[Max. Marks : 100*

*Instructions to the candidates:*

- 1) *All questions are compulsory.*
- 2) *Figures to the right indicate full marks.*

**Q1)** Answer the following (Any 5): **[30]**

- a) Discuss M.D.F. as construction material in set design.
- b) Write in brief about manufacturing process of glass.
- c) Explain any 3 defects in timber with diagram.
- d) Explain the importance and methods of seasoning of timber.
- e) Explain angle joint with any two example.
- f) What is acrylic?

**Q2)** Write short note (Any 5): **[25]**

- a) Annealing.
- b) Dovetail joint.
- c) English bond.
- d) Characteristics of good timber.
- e) Widening joint.
- f) Any five trees usually used in carpentry work.

**Q3)** Explain with the sketches (Any 5): **[25]**

- |                      |                     |
|----------------------|---------------------|
| a) Knot.             | b) Bull nose.       |
| c) Sliding window.   | d) Paneled door.    |
| e) Shouldered joint. | f) Casement window. |

**Q4)** Explain the following (Any 5): **[20]**

- |                    |                            |
|--------------------|----------------------------|
| a) Stretcher.      | b) Star shake.             |
| c) King closure.   | d) Header bond.            |
| e) Types of glass. | f) Disadvantages of M.D.F. |





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P625

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Second Year B.Des. (Set Design)

**HISTORY**

*Time : 3 Hours]*

*[Max. Marks : 100*

*Instructions to the candidates:*

- 1) *All questions are compulsory.*
- 2) *Figures to the right indicate the marks.*
- 3) *Elaborate with sketches wherever necessary.*

**Q1)** Write about evolution of the temple, from the bamboo hut to the stone cut temples. Discuss the various elements. **[20]**

**Q2)** Explain evolution of (Any one): **[20]**

- a) Shikar in various regions of India.
- b) Column styles in various styles in temple.

**Q3)** Studying history of architecture is must in relation with set design. Discuss the statement and justify with examples. **[20]**

**Q4)** Describe the Dravid style of temple complex with illustrations and correct nomenclature. **[20]**

**Q5)** Write short notes on: **[20]**

- a) Kudu Motif.
- b) Antarala.
- c) Mandapa.
- d) Grabhagriha.
- e) Shikar.



Total No. of Questions : 9]

SEAT No.:

**P906**

[Total No. of Pages : 1

**[4168]-31**

**Third Year B.Des. (Product Design)**

**MATERIALAND PROCESS - IV**

**(Sem. - VI)**

*Time : 3 Hours]*

*[Max. Marks : 100*

*Note : Attempt any two questions from section-I and four questions from section-II.*

**SECTION - I**

**[2 × 20 = 40]**

- Q1)** Explain live hinge design and potential application area with benefit.
- Q2)** Please show detailed exploded view of kitchen grinder with material.
- Q3)** Explain Ultrasonic welding process with application.
- Q4)** What is the difference between prototyping and mock-up. Explain all the material which are used for prototyping and mock-up work. Explain SLA, SLS, FDM. No sketch is required.

**SECTION - II**

**[4 × 15 = 60]**

- Q5)** Explain GAIN and WIM technology with examples.
- Q6)** Explain surface finishes like Glossy finish, Matte finish, Spark finish and Tampo printing with application, show ultrasonically assembled tampo printed logo on a washing machine top lid.
- Q7)** What is two material moulding and insert moulding? Explain the customer benefit.
- Q8)** Explain Spin Welding process.
- Q9)** Explain BSW and Metric screws. Explain any 5 types of screw head with benefit and application.



Total No. of Questions : 4]

SEAT No. :

[Total No. of Pages : 2

P907

[4168]-32

Third Year B.Des. (Set Design)

MATERIALS AND CONSTRUCTION - IV

(Sem. - VI)

*Time :3 Hours]*

*[Max. Marks :100*

*Instructions to the candidates:*

- 1) *All questions are compulsory.*
- 2) *Figures to the right indicate the marks.*
- 3) *Illustrate with sketches wherever necessary.*

**Q1)** Write briefly about following (Any 5) : **[30]**

- a) Trapezoidal footing.
- b) Flemish bond
- c) Polygonal rubble masonry
- d) Sand face plaster
- e) Types of paints
- f) Shahabad flooring

**Q2)** Explain with sketches (Any 3) : **[30]**

- a) Causes of fire.
- b) Fire suppression systems.
- c) Characteristics of fire resistant material.
- d) Sprinkler system.

**Q3)** Describe following (Any 5) : **[20]**

- a) 1 Type of wiring.
- b) Circuit breaker.
- c) Earthing.
- d) Colour code in three phase current.
- e) Diesel generator.
- f) Battery invertors.

*P.T.O.*

**Q4)** Answer the following (Any 5) :

**[20]**

- a) What do you mean by fire detector? Explain its importance.
- b) Why electrification is considered as important part of set design?
- c) Why fire extinguishers are necessary on indoor locations?
- d) What kind of consideration would you take while designing set with respect to fire?
- e) Make a list of materials which are fire resistant.

