Savitribai Phule Pune University Interdisciplinary School of Science Master of Design

## I. Syllabus of the Online Entrance Examination for Master of Design

The Multiple Choice Question based Online Entrance Exam for the Master of Design will be based on the following units. The description here is meant to provide only a general idea and scope of the unit. The units are not mutually exclusive and the list of points therein is not exhaustive.

1. Visualization and spatial ability - In this part, questions will be asked based on the pictorial and diagrammatic content about 2D shapes and 3D objects with their spatial relationships.
2. Environmental and social awareness - Students aspiring to appear in the entrancetest must be fond of design terminologies, social and cultural connection with design, history of the designed artefact, and socially responsible and environmentally sustainable design responses.
3. Analytical and logical reasoning - Candidates must have the logical and structured thinking to deduce from a short passage, which statements are apt responses to the posed question.
4. Language and creativity - Aspiring candidates must think creatively in the matter of alternative English language vocabulary, facility to differentiate innovative options and think out of the box.
5. Design thinking and problem solving - Aspirants must understand the context, the user and the constraints and select the most relevant solution for the given design problem.
6. Observation and design sensitivity - Candidates must have the ability to observe the hidden properties in day to day life and think rigorously about them in terms of visual and aesthetic properties.

## II. Sample Questions for Online Entrance Examination for Master of Design

The Online Entrance Examination for Master of Design consists of two sections: A and B. The Section A which is for 20 marks focuses on logic, comprehension, numerical ability, English grammar, vocabulary and general aptitude whereas Section B which is for 80 marks focuses on the syllabus described above. The OEE is based on multiple choice question format and follows a negative marking system. The OEE is for 1 hour duration. The details about number of questions, marks per questions, negative marks per question for wrong answer etc. will be given on the OEE paper. Following are few sample questions for Sec A and Sec B

## Sect A: General Aptitude, Logic, Comprehension, Numerical Ability, Grammar \& Vocabulary

|  |  |
| :--- | :--- |
| Question | Arrange the following words in alphabetical order and identify the last but one word: <br> Labyrinth, Liberal, Libel, Laboratory, Library |
| A | Labyrinth |
| B | Libel |
| C | Library |
| D | Liberal |
| Answer | D |
| Marks | 2 |
| Question | If Cricket is called as Hockey, Hockey is termed as Football, Football is called as Tennis <br> and Tennis is regarded as Basketball then in which sports you will come across the <br> term 'Header'? |
| A | Hockey |
| B | Football |
| C | Tennis |
| D | Cricket |
| Answer | B |
| Answer | C |
| Marks | 2 |
| B | Repstion <br> A <br> Are arranged in reverse order of their occurrence according to Gregorian calendar, <br> then which would be the last one? |
|  | Independence Day |


|  |  |
| :--- | :--- |
| Question | In a row of 29 people, Virat is fifth from the left end and Jaspreet is fifth from the right <br> end. Mahi is standing between Virat and Jaspreet at such a position that equal number <br> of people are between him and Virat and him and Jaspreet. At what position is Mahi <br> standing from the left end? |
| A | 13 |
| B | 14 |
| C | 15 |
| D | 16 |
| Answer | C |
| Marks | 2 |
| Auestion | Which of the following diagram visually reflects the logical relationship between |
| Answer | A Fathers |
| A | 2 |
| B |  |


|  |  |
| :--- | :--- |
| Question | Which of the following represents the relations as between 'chalk: blackboard' ? |
| A | Computer Screen: Hard disc |
| B | Computer: Motherboard |
| C | Keyboard: Comuter Screen |
| D | Computer Mouse: Operating system |
| Answer | C |
| Marks | 2 |

## Sec B: Subject Specific Questions

|  |  |
| :--- | :--- |
| Question | Color has three distinct properties |
| A | Hue, value and saturation or intensity |
| B | Red, Blue, Green |
| C | White, Black and Grey |
| D | It depends |
| Answer | A |
| Marks | 2 |
| Question | A heavy object lying on a smooth flat ground needs to be moved to another place on <br> the same flat ground. One could achieve this by pushing or pulling this object. <br> Amongst the options below, choose the one that involves spending the least effort. |
| A | Pushing |
| B | Pulling |
| C | Partially pulling and partially pushing |
| D | None of the above |
| Answer | B |
| Marks | 2 |
|  |  |


| Question | A ship stays afloat without toppling because $\qquad$ . Choose the correct option to fill in the blank. <br> (Note: Centre of buoyancy is the point where the buoyant force can be indicated acting upward. Centre of Gravity is the point where the weight of the ship can be indicated acting downward.) |
| :---: | :---: |
| A | ...the Centre of buoyancy is below the Centre of Gravity |
| B | ...the Centre of buoyancy is above the Centre of Gravity |
| C | ...the Centre of buoyancy coincides with the Centre of Gravity |
| D | ...of Archimedes principle alone |
| Answer | B |
| Marks | 2 |
| Question | What is a point of inflexion? |
| A | A location beyond which a curved member cannot take further load |
| B | This is a point that is not flexible |
| C | Point on a curve from where the curvature reverses |
| D | This is a location where one can bend |
| Answer | C |
| Marks | 2 |
|  |  |
|  |  |
| Question | What is Ergonomics? |
| A | A scientific discipline that evaluates tasks, jobs, products and systems to make them compatible with the needs, abilities and limitations of people |
| B | A scientific discipline that seeks to economically prescribe work with the motive of full utilization of the available human resources |
| C | A scientific discipline that seeks to understand the laws governing getting work done |
| D | It is a new branch of economics |
| Answer | A |
| Marks | 2 |
|  |  |


| Question | This element is used in electro-plating plastics/metal to give them a shiny mirror-like <br> decorative and protective coat. The hexavalent form of this element is now <br> considered highly carcinogenic |
| :--- | :--- |
| A | Aluminium |
| B | Platinum |
| C | Chromium |
| D | Silver |
| Answer | C |
| Marks | 2 |
|  | Question |
| What is common across Byzantine, Indo-Sarcenic and Colonial? |  |
| A | They are all styles of architecture |
| B | They are all design movements |
| C | They are all art movements |
| D | None of the above |
| Answer | A |
| Marks | 2 |
| Question | Inflatable furniture is generally made out of Calendered |
| A | Poler, pyramid and sphere |
| A | Polyvinyl Chloride (PVC) |
| B | High Density Polyethylene (HDPE) |
| C | Acrylic (PMMA) |
| A | Polycarbonate (PC) |
| Answer | A |
|  | 2 |


| Answer | D |
| :--- | :--- |
| Marks | 2 |
|  |  |
| Question | Which of the following shapes has a sense of direction? |
| A |  |
| B |  |
| C |  |
| D | A |
| Answer | C |
| Marks | 2 |
| Answer | B |
| B | A process of casting for realizing intricate detail as seen on figurines process for apples using a lot of wax |
| Question | What is Golden ratio? |
| A | It is the ratio of pure gold to pure copper in an alloy used for making ornaments |
| B | It is a special number found by dividing a line into two parts so that the longer part |
| divided by the smaller part is also equal to the whole length divided by the longer |  |
| part |  |
| D | What is Lost-wax process? |
| Answer | B |
| Marks | 2 |
|  |  |
|  | None of the above |


| Marks | 2 |
| :--- | :--- |
|  |  |
| Question | For a given volume, which of the given forms has the minimum surface area? |
| A | Cube |
| B | Cylinder |
| C | Sphere |
| D | Cone |
| Answer | C |
| Marks | 2 |
|  | Red, Blue, Yellow |
| Question | Moulded Chairs are generally made of which material? |
| A | Acrylonitrile Butadiene-Styrene (ABS) |
| B | Polystyrene (PS) |
| C | Polypropylene (PP) |
| D | High Density Polyethylene (HDPE) |
| A | Set_1 |
| Answer | C |
| Marks | 2 |
| Unit | Set_1 |
| Unit | $1: 10$ |
| A | $1: 8$ |
| A | $1: 20$ |
| C | $1: 21$ |
| Wharks | 2 |
|  | What is the maximum acceptable ratio (height:length) for a wheel-chair ramp? |


| B | White and Black |
| :--- | :--- |
| C | Red, Green, Blue |
| Answer | Alue, Green, Yellow |
| Marks | 2 |
| Unit | Set_1 |
|  |  |
| Question | This material is used in reinforcing plastics to enhance their strength and durability. |
| This material is arguably carcinogenic also. |  |
| A | Gelatin Fibre |
| B | Glass Fibre |
| C | Glass Wool |
| D | Aluminium Foam |
| Answer | B |
| Marks | 2 |
|  |  |
| Question | In comparison with Thermoplastics, identify the main property of Thermosets? |
| A | Higher heat resistance |
| B | Brittle |
| C | They are not recyclable |
| D | All of the above |
| Answer | D |
| Marks | 2 |
| Unit | Set_1 |

