CBSE | DEPARTMENT OF SKILL EDUCATION

DESIGN (SUBJECT CODE 830)

Blue-print for Sample Question Paper for Class XII (Session 2020-2021)

Max. Time: 3 Hours

Max. Marks: 60

PART A - EMPLOYABILITY SKILLS (10 MARKS):

| UNIT NO. | NAME OF THE UNIT | OBJECTIVE TYPE QUESTIONS 1 MARK EACH | SHORT ANSWER TYPE QUESTIONS 2 MARKS EACH | TOTAL QUESTIONS |
|-------------|---|--|--|--------------------|
| 1 | Communication Skills-IV | 1 | 1 | 2 |
| 2 | Self-Management Skills-IV | 2 | 1 | 3 |
| 3 | Information and Communication Technology Skills-IV | 1 | 1 | 2 |
| 4 | Entrepreneurial Skills-IV | 1 | 1 | 2 |
| 5 | Green Skills-IV | 1 | 1 | 2 |
| | TOTAL QUESTIONS | 6 | 5 | 11 |
| N | D. OF QUESTIONS TO BE ANSWERED | Any 4 | Any 3 | |
| | TOTAL MARKS | 1 x 4 = 4 | 2 x 3 = 6 | 10 MARKS |

PART B - SUBJECT SPECIFIC SKILLS (50 MARKS):

| UNIT NO. | NAME OF THE UNIT | OBJECTIVE TYPE QUESTIONS 1 MARK EACH | SHORT ANS. TYPE QUES I 2 MARKS EACH | SHORT ANS. TYPE QUES II 3 MARKS EACH | DESCRIPTIVE/ LONG ANS. TYPE QUESTIONS 4 MARKS EACH | TOTAL QUESTIONS |
|-------------|------------------------------------|--|---|--|---|--------------------|
| 1 | Design Thinking | 13 | 2 | 1 | 2 | 18 |
| 2 | Design Tools and Techniques | 11 | 2 | 1 | 2 | 16 |
| 3 | Occupational Health and Safety | 8 | 1 | 1 | 1 | 11 |
| | | | | | | |
| | TOTAL QUESTIONS | | 5 | 3 | 5 | 45 |
| | NO. OF QUESTIONS TO BE ANSWERED | 26 | Any 3 | Any 2 | Any 3 | |
| | TOTAL MARKS | 1 x 26= 26 | 2 x 3 = 6 | 3 x 2 = 6 | 4 x 3 = 12 | 50 MARKS |

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Sample Question Paper for Class XII (Session 2020-2021)

Max. Time: 3 Hours

Max. Marks: 60

General Instructions:

- **1.** Please read the instructions carefully.
- 2. This Question Paper consists of 24 questions in two sections Section A& Section B.
- 3. Section A has Objective type questions whereas Section B contains Subjective type questions.
- 4. Out of the given (6 + 18 =) 24 questions, a candidate has to answer (6 + 11 =) 17 questions in the allotted (maximum) time of 3 hours.
- 5. All questions of a particular section must be attempted in the correct order.

6. SECTION A - OBJECTIVE TYPE QUESTIONS (30 MARKS):

- i. This section has 06 questions.
- ii. There is no negative marking.
- iii. Do as per the instructions given.
- iv. Marks allotted are mentioned against each question/part.

7. SECTION B – SUBJECTIVE TYPE QUESTIONS (30 MARKS):

- i. This section contains 18 questions.
- ii. A candidate has to do 11 questions.
- iii. Do as per the instructions given.
- iv. Marks allotted are mentioned against each question/part.

SECTION A: OBJECTIVE TYPE QUESTIONS

| Q. 1 | Answer any 4 out of the given 6 questions on Employability Skills (1 x 4 = 4 marks |) |
|------|--|---|
| i. | communication is sharing of information through typing, printing | 1 |
| | symbols like letters and numbers. | |
| | A) Verbal | |
| | B) Non- verbal | |
| | C) Written | |
| | D) Visual | |
| ii. | is one of the common uses of internet. | 1 |
| | A) Electronic mail | |
| | B) Research | |
| | C) Downloading file | |
| | D) All of the above | |
| iii. | Identify the personality trait of the person who is not interested in social | 1 |
| | relationships, tends to be distant and is detached and indifferent. | |
| | A) Obsessive | |
| | B) Borderline | |
| | C) Avoidant | |
| | D) Schizoid | |
| iv. | Green jobs for building and construction sectors include- | 1 |
| | A) Water auditor | |
| | B) Highway laborers | |
| | C) Energy auditor | |
| | D) Destination managers | |
| v. | A student internally motivated will complete his task- | 1 |
| | A) To avoid punishment | |
| | B) To gain reward | |
| | C) For personal growth D) To show off | |
| vi. | Which of the following is true for entrepreneurs? | 1 |
| | A) All entrepreneurs have great ideas all the time. | - |
| | B) One must know everything before starting a business. | |
| | C) A lot of money is required to start any business. | |
| | D) To be successful, entrepreneurs should be hardworking, energetic and | |
| | perseverant. | |

| Q. 2 | Answer any 5 out of the given 7 questions (1 x 5 = 5 marks) | |
|------|--|---|
| i | Following is an extract from a case study of internet browsers- | 1 |
| | "For over a decade, Internet Explorer dominated the web browser landscape, with only Mozilla's Firefox and the MacOS browser Safari offering it any sort of challenge after Microsoft effectively crushed Netscape. This has changed radically since the December 2008 introduction of Google's Chrome, an application that now claims over 40% of the browser market. | |

| | Speed is probably the single biggest factor in Chrome's success. User studies show that most people find it a lot easier to use Chrome — the "omnibox" can be used for both web addresses and searches. It's also easy to synchronize, meaning that if you use Chrome at home and at work and on another computer, you'll have the same extensions and browser history as long as you're signed in with the same Google account." Why is Chrome the best designed browser? | |
|-----|--|---|
| | | |
| | A) User centric approachB) Minimalistic, easy-to-understand design | |
| | C) Focuses on providing a better experience | |
| | D) All of the above | |
| ii | What is the nature of Design Activity? | 1 |
| | A) Social | - |
| | B) Isolated | |
| | | |
| | C) Pair | |
| | D) None of the Above | |
| iii | Ideate is the phase of design thinking process. | 1 |
| | A) First | |
| | B) Second | |
| | C) Third | |
| | D) Last | |
| | | |
| iv | Design thinking is a process. | 1 |
| | A) Iterative | |
| | B) Linear | |
| | C) Circular | |
| | D) None of the above | |
| v | Card sorting can be conducted | 1 |
| | A) by Mail | |
| | B) during Workshops | |
| | C) Electronically | |
| | D) All of the above | |
| vi | Shadowing is a research tool used for people. | 1 |
| | A) Observing B) Interviewing | |
| | C) Enquiring | |
| | D) Discussing | |
| vii | During brain storming sessions, people should promote . | 1 |
| | A) Criticizing | - |
| | | |
| | B) Free Thinking | |
| | C) Rewarding Ideas | |
| | D) All of the Above | |
| | | |

| Q. 3 | Answer any 6 out of the given 7 questions (1 x 6 = 6 marks) | |
|------|---|---|
| i | (For Q3 i - iii) | 1 |
| | Mr. Patel owns a company which designs and manufactures shoes. He wanted to | |
| | make a shoe which catered to the needs of full-time working women. His design | |
| | team understood the needs and wants of the target customer, defined the | |
| | problem in a user-centric way, brainstormed and mapped the ideas and even made | |
| | a prototype. Then they launched the new shoe in the market to sell. It did not sell | |
| | as much as they expected, and had to be taken down from the market. | |
| | Which step of the design process did Mr. Patel's company miss? | |
| | A) Empathise | |
| | B) Define | |
| | | |
| | C) Ideate | |
| | D) Test | |
| ii | Why is Mr. Patel's company focusing on having a design process? | 1 |
| | A) Design process is more time consuming and less useful. B) Design process is done only to better the brand image | |
| | B) Design process is done only to better the brand image.C) Design process holds no significance at all. | |
| | D) Design process is done to shape and guide your work and thoughts | |
| | to improve the outcome. | |
| iii | What kind of footwear would qualify as a good product for working women of | 1 |
| | today? | |
| | A) Comfort only | |
| | B) Style only | |
| | C) Both A and B | |
| | D) There is no need for such a product | |
| iii | Proximity can be referred to as grouping of | 1 |
| | A) Similar Objects | |
| | B) Same Objects | |
| | C) Different Objects | |
| | D) All of the above | |
| iv | Which Gestalt principle is followed by the following logo? | 1 |
| | | |
| | | |
| | | |
| | | |
| | 3 | |
| | | |
| | Pittsburgh Zoo | |
| | & PPG Aquarium | |
| | | |
| | A) Costalt law of continuity | |
| | A) Gestalt law of continuity B) Gestalt law of Order and Symmetry | |
| | B) Gestalt law of Order and Symmetry C) Gestalt law of figure and ground | |
| | C) Gestalt law of figure and ground D) Gestalt law of closure | |
| | | |

| v | Requirement of a good designed product is | 1 |
|----|---|---|
| | A) Reparability | |
| | B) Durability | |
| | C) Compact | |
| | D) All of the above | |
| vi | Which of the following are related to Handlooms – | 1 |
| | | |
| | A) Pit Loom | |
| | B) Hand Dying of hanks | |
| | C) Frame Loom | |
| | D) All of the above | |

| r | 1 | 1 |
|------|--|---|
| Q. 4 | Answer any 5 out of the given 6 questions (1 x 5 = 5 marks) | |
| i | The number which indicates mass per unit length or length per unit mass of yarn is | 1 |
| | a | |
| | | |
| | A) GSM Method | |
| | B) Count | |
| | C) Momme | |
| | D) Pics/inch | |
| ii | For garment sizing, centimetre is used in - | 1 |
| | A) US Market | |
| | B) European Market | |
| | C) Asian Market | |
| | D) None of the Above | |
| iii | A single crossing of a shuttle from one side of a loom to the other is known as | 1 |
| | a | |
| | | |
| | A) An end | |
| | B) A pick | |
| | C) Take Up | |
| | D) All of the above | |
| iv | Mr. X owns a woodwork industry. In the past month, 2 workers in the industry got injured by a machine, and another worker faced respiratory problems. What should be Mr. X's attitude towards the situation? | 1 |
| | 1. It is a minor issue of 3 out of 70 workers, no real damage was done. | |
| | 2. The company should not spend time and resources on controlling hazards. | |
| | 3. Workers should be given a seminar on the proper use of machines. | |
| | 4. The equipment should be maintained properly. | |
| | 5. Exhaust ventilation and periodic cleaning of entire facility should be ensured. | |
| | A) 1,2 should be applied | |
| | B) Only 4 should be applied | |
| | C) 3,4,5 should be applied | |
| | D) None of the above | |

| _ | | | |
|---|----|---|---|
| | v | CNC Machine- | 1 |
| | | A) makes precise cuts | |
| | | B) creates beautiful art | |
| | | C) is economical | |
| | | D) none of the above | |
| | vi | is/are the major raw materials of the match industry. | 1 |
| | | A) Wood waste | |
| | | Aj wood waste | |
| | | B) Pine Needles | |
| | | C) Casuarina needles | |
| | | D) All of the above | |
| | | | |

| Q. 5 | Answe | er any 5 out of the given 6 questions (1 x 5 = 5 marks) | |
|------|--------|---|---|
| i | Benefi | t(s) of value addition industries is/are | 1 |
| | A) | Proper storage and utilization | |
| | B) | Proper handling | |
| | C) | Reduce post-harvest losses | |
| | D) | All of the above | |
| ii | Jointe | rs are wood working machines used to- | 1 |
| | A) | Produce precise holes in pieces of wood | |
| | В) | Flatten and straighten the edges of wood boards | |
| | C) | Shape the timber | |
| | D) | Make intricate circles | |
| iii | Drying | stage of furniture production comes after- | 1 |
| | A) | Grinding stage | |
| | В) | Shearing and transport stage | |
| | C) | Execution of individual pieces of furniture | |
| | D) | Selection of materials | |
| iv | Pinche | ed fingers are a common injury of which industry- | 1 |
| | A) | Wood industry | |
| | В) | Metal | |
| | C) | Textile | |
| | D) | Plastic | |
| v | CAD P | ro is professional software for- | 1 |
| | A) | furniture and interior design | |
| | B) | Drafting | |
| | C) | Designing and visualizing | |
| | D) | All of the above | |
| L | | | I |

| vi | In plastic industries, safety data sheet should not include- | |
|----|---|--|
| | A) Information on correct processing temperature | |
| | B) Information on degradation products | |
| | C) Information on any additives and their possible effects on fume production | |
| | D) Promotion of free usage of all virgin and regrin material. | |

| Q. 6 | Answer any 5 out of the given 6 questions (1 x 5 = 5 marks) | |
|------|--|---|
| i | Main aim of ILO is to | 1 |
| | A) Promote rights at work. | |
| | B) Encourage decent employment. | |
| | C) Enhance social protection. | |
| | D) All of the above. | |
| ii | COSHH assessments are usually carried out in industry. | 1 |
| | A) Plastic manufacturing | |
| | B) Textile | |
| | C) Metal | |
| | D) Wood work industry | |
| iii | Green color on Risk matrix indicates | 1 |
| | A) Unacceptable Risk. | |
| | | |
| | B) Acceptable Risk. | |
| | C) Acceptable with mitigation. | |
| | D) None of the above. | |
| iv | Continuous inhalation of cotton dust results in | 1 |
| | A) lung disease, coughing and shortness of breath | |
| | B) heart disease | |
| | C) dermatitis | |
| | D) hearing loss | |
| v | Material Safety Data Sheet should not provide information on | 1 |
| | A) Disposable methods | |
| | B) Storage conditions | |
| | C) Spill or leak procedures | |
| | D) Cost of industry equipment | |
| vi | Wood workers in India are exposed to which cause health hazards. | 1 |
| | A) Formaldehyde and resin | |
| | B) Polypropylene | |
| | C) polystyrene | |
| | D) PVC | |
| | · | |
| | | |

SECTION B: SUBJECTIVE TYPE QUESTIONS

Answer any 3 out of the given 5 questions on Employability Skills (2 x 3 = 6 marks) Answer each question in 20 - 30 words.

| Q. 7 | What is self-motivation? Why is it important? | 2 |
|-------|--|---|
| Q. 8 | Mention any two positive skills of listening. | 2 |
| Q. 9 | Write two advantages of spreadsheet software. | 2 |
| Q. 10 | What are renewable resources? | 2 |
| Q. 11 | Enlist the qualities of an entrepreneur and explain any one. | 2 |

Answer any 3 out of the given 5 questions in 20 - 30 words each (2 x 3 = 6 marks)

| Q. 12 | Define Ideation stage and how Brainstorming sessions help to generate ideas. | 2 |
|-------|--|---|
| Q. 13 | Define Gestalt's Law of Closure. | 2 |
| Q. 14 | Write any three softwares used in the field of furniture design. | 2 |
| Q. 15 | How do inattentive or poorly trained weavers face dangers in the textile industry? | 2 |
| Q. 16 | Write any two health hazards experienced by the wood workers in India. | 2 |

Answer any 2 out of the given 3 questions in 30– 50 words each (3 x 2 = 6 marks)

| Q. 17 | Elaborate the five phases of Design Thinking. | 3 |
|-------|---|---|
| Q. 18 | Explain the three basic motions of a loom. | 3 |
| Q. 19 | What is risk matrix grid? What does it represent? | 3 |

Answer any 3 out of the given 5 questions in 50–80 words each (4 x 3 = 12 marks)

| Q. 20 | What do you mean by Product Design? What are the essential requirements of a good product design? | 4 |
|-------|---|---|
| Q. 21 | Elaborate the six research tools for the empathize phase. | 4 |
| Q. 22 | Explain four types of wood working. | 4 |
| Q. 23 | Explain major forest-based industries. | 4 |
| Q. 24 | Mention the common cause of injury and illness in the Iron and Steel Industry. | 4 |