

# **CBSE – DEPARTMENT OF SKILL EDUCATION**

## **TEXTILE DESIGN (SUBJECT CODE 829)**

### **Marking Scheme**

#### **Class XII (Session 2019–2020)**

Time: 3 Hours

Max. Marks: 60

#### **General Instructions:**

1. This Question Paper consists of two parts viz. Part A: Employability Skills and Part B: Subject Skills.

#### ***Part A: Employability Skills (10 Marks)***

- i. Answer any 4 questions out of the given 6 questions of 1 mark each.
- ii. Answer any 3 questions out of the given 5 questions of 2 marks each.

#### ***Part B: Subject Skills (50 Marks):***

- iii. Answer any 10 questions out of the given 12 questions of 1 mark each.
  - iv. Answer any 5 questions from the given 7 questions of 2 marks each.
  - v. Answer any 5 questions from the given 7 questions of 3 marks each.
  - vi. Answer any 3 questions from the given 5 questions of 5 marks each.
2. This question paper contains 42 questions out of which 30 questions are to be answered.
3. All questions of a particular part/section must be attempted in the correct order.
4. The maximum time allowed is 3 hrs.

### **PART A: EMPLOYABILITY SKILLS (10 MARKS)**

#### **Answer any 4 questions out of the given 6 questions of 1 mark each:**

1.	<b>How is hearing different from Listening?</b> <b>Answer-</b> Hearing is the act of sound perceiving by ear which is accidental, involuntary and effortless whereas listening is consciously done for a purpose which is focused, voluntary and intentional.	(1)
2.	In SMART goals what does A stand for. a) Activity b) Achievable c) Attractive d) Amazing <b>Answer-</b> Achievable	(1)
3.	Symbols shapes is available on _____ bar a) Drawing Bar b) Status Bar c) Formatting Bar d) Graphics Side Bar  <b>Answer – a) Drawing Bar</b>	(1)

4.	<p><b>State how is adding substitutes important for the growth of any business?</b>  <b>Answer</b>  A business can grow at a faster pace by giving offers to customers. Substitutes mean products and services which are similar to what is already being sold. For example, selling candle stands along with candles.</p>	(1)
5.	<p>What do you mean by the term 'prosumers'?</p> <p>Ans- Tourists to care about the future.</p>	(1)
6.	<p>Music is the language of –</p> <ul style="list-style-type: none"> <li>a) Soul</li> <li>b) Friends</li> <li>c) Books</li> <li>d) Activities</li> </ul> <p>Answer- Soul</p>	(1)

**Answer any 3 questions out of the given 5 questions of 2 marks each:**

7.	<p><b>Explain any two types of sentences.</b>  <b>Answer</b>  A sentence is a group of words giving a complete thought. It must contain a subject and a verb.</p> <p>a) Simple sentence- is one independent clause that has a subject and a verb and expresses a complete thought.  Example- I am out of paper for the printer.</p> <p>b) Compound Sentence - It combines two independent clauses by using a conjunction like "and." This creates sentences that are more useful than writing many sentences with separate thoughts.  Example -I drove to the office, and then I walked to the cabin.</p>	(2)
8.	<p>Write in short about borderline.</p> <p>Answer - a personality disorder characterized by instability in many areas, as mood, identity, self-image, and behaviour, and often manifested by impulsive actions, suicide attempts, inappropriate anger, or depression.</p>	(2)
9.	<p>Explain conditional formatting with example?</p> <p>Answer</p> <p>Conditional formatting is a feature in Clac that allows you to set a cell's format according to the conditions that you specify. For example, you can display numbers in a particular color, depending on marks they have scored if marks are greater than 80 then it will display green in color, if it is equal to 80 it will display in blue and if it is less than 80 then display red in color.</p>	(2)
10.	<p>'Pricing' and 'Offers' are two of the many key aspects to keep in mind while understanding business competitors. Justify.</p> <p>Ans- <b>Pricing</b>: Pricing means an understanding of the price at which different competitors sell their product or service. Knowledge of competitor pricing helps the entrepreneur to decide the price and quality of their own products or service.</p> <p><b>Offers</b>: The next information that an entrepreneur can find out is about the kind of offers that the competitors give to their customers, and why does a customer go to them again and again? This knowledge will give the entrepreneur ideas on how they can be different from their competitors.</p>	(2)

11.	What is a key challenge in green jobs of building & construction sector and why?  Answer- Attracting talent and investment is a key challenge because this industry suffers from a skill shortfall.	(2)
-----	---	-----

## PART B: SUBJECT SKILLS (50 MARKS)

**Answer any 10 questions out of the given 12 questions:**

12.	Hydrogen peroxide is also called as----- <b>Ans.</b> Universal Bleaching agent	(1)
13.	----- treatment removes oil, water and residual sizes from the fabric. <b>Ans.</b> Scouring	(1)
14.	Durability of the .....depends upon binders used. <b>Ans.</b> Pigments	(1)
15.	Vat dyes are ..... organic compounds and not substantive to cellulose. <b>Ans.</b> Insoluble	(1)
16.	..... derived from formulation of compounds containing sulfur <b>Ans.</b> Sulfur Dyes	(1)
17.	Prints in which both sides of the fabric have been printed are called..... <b>Ans.</b> Duplex Prints	(1)
18.	In.....production is more costly then direct prints because fabric is to be dyed prior to printing. <b>Ans.</b> Discharge Printing	(1)
19.	The background removing is the same shade on the face and back of the fabric in ..... <b>Ans.</b> Discharge Prints.	(1)
20.	In textile industry ..... is employed to provide color directions <b>Ans.</b> Colorist	(1)
21.	..... is the process of planning the repeats to create continuous flow in all directions. <b>Ans.</b> Layout	(1)
22.	The motif used in Phulkari to ward of evil eye is called..... <b>Ans.</b> Nazarbuti	(1)
23.	The basic strich used in Sujani is ..... stitch <b>Ans.</b> Stem, Fly, Darning.	(1)

**Answer any 5 questions out of the given 7 questions of 2 marks each:**

24.	What are the chemicals used in Scouring and De-Sizing? <b>Ans.</b> Strong alkali solution (5-10 gm/lit NaOH or mixture of NaOH & Sodium Carbonate) is used in scouring. Wetting agent and Sodium Chloride (NaCl) is used in desizing.	(2)
25.	What are the main objective of preparatory treatment of textile material <b>Ans.</b> The main objectives of preparatory treatments of textile materials are, <ul style="list-style-type: none"> <li>• To remove all the impurities, both naturals and those added during production that may interfere in subsequent dyeing or finishing process.</li> </ul>	(2)

	<ul style="list-style-type: none"> <li>Improve the ability of the fibers to absorb water, dyes solutions and chemicals.</li> </ul>	
26.	<p>Write short note on Acid dyes.</p> <p><b>Ans.</b> These dyes are sodium salt of sulphonic acid These dyes are available in a form of salts and are water-soluble. These dyes are applied in acid medium by exhaust method. Acid dyes are mainly used for dyeing of wool and silk.</p>	(2)
27.	<p>What are the specific features of Warp Print?</p> <p><b>Ans.</b> Warp Prints involve printing the warp yarns of a fabric before it is placed on the loom for weaving. The result is a soft, shadowy design on the fabric. These prints are found almost exclusively on high quantity and expensive fabric.</p>	(2)
28.	<p>Write short note on dot print and illustrate also.</p> <p><b>Ans.</b> Polka dot prints were the most popular element in 1960's. Dots can be of various sizes. Just a point or a big circle both are referred to as a dot. These can be simply printed onto the fabric with a different background colour, or different coloured dots on a solid background or many dots can make different designs and patterns.</p> <div style="text-align: center;">  <p>Dot prints</p> </div>	(2)
29.	<p>What are the precautions to be taken while doing Etching Technique?</p> <p><b>Ans.</b> The precautions to be taken while doing Etching Technique are:-</p> <ul style="list-style-type: none"> <li>While colouring the first layer make sure no white spaces are left.</li> <li>For the second layer, make sure the previous lower layer is not visible.</li> <li>While using poster colour use thick paint and minimum amount of water.</li> </ul>	(2)
30.	<p>What are the different styles of motifs used in Kantha?</p> <p><b>Ans.</b> The motifs used in Kantha are lotus flowers, floral scrolls, tree of life, creepers; animal and bird forms; fish, sea-monsters, mermaids, ships, submarine scenes; domestic articles like mirrors, pitcher, nut cracker, umbrella, musical instruments and human figures like gods and goddesses, horse man, fisherwoman etc.</p>	(2)

**Answer any 5 questions out of the given 7 questions of 3 marks each:**

<b>31.</b>	<p>What are the main objections of Mercerizing process?</p> <p><b>Ans.</b> Mercerization improves the following properties of the fabric:-</p> <ul style="list-style-type: none"><li>• Strength would be increased to 15-25%.</li><li>• Enhanced luster.</li><li>• Greater affinity to water, dyes and other chemical finishes.</li><li>• Shrinkage control in both the direction of the fabric.</li></ul>	<b>(3)</b>
<b>32.</b>	<p>Describe the application of Vat dyes and illustrate its structure</p> <p><b>Ans.</b> These dyes are insoluble in water, it can not be applied directly to the fabrics. First these dyes are converted into water soluble form, by reducing it with the help of Caustic soda and Sodium hydro sulphite. When these dyes become soluble in water, they can be applied on a fabric. After the application, these dyes are again converted into water insoluble form by oxidation process, with the use of hydrogen peroxide and acetic acid or simply by air oxidation.</p> <p>Indigo dye</p> <div data-bbox="411 835 1139 1182" data-label="Chemical-Block"><p>Indigo, (2, 2'-Bis (2, 3-dihydro-3-oxoindolylden). Indigotin</p></div> <p>Structure of</p>	<b>(3)</b>
<b>33.</b>	<p>How do you identify the Blotch prints?</p> <p><b>Ans.</b> Identification of Blotch Prints:-</p> <ul style="list-style-type: none"><li>• The blotch print background color is lighter on backside of the fabric.</li><li>• Possibilities of large background color areas of the print are not covered with full depth of colors.</li><li>• Precise control is necessary.</li><li>• If pigments are used in blotch prints, then fabrics very often result in objectionable stiff hand.</li></ul>	<b>(3)</b>

**34.** Write a note on Animal prints and illustrate it. **(3)**  
**Ans.** Animal prints on textiles resemble the pattern on the skin or the fur of an animal such as a leopard, cheetah, zebra, tiger, spotted hyena, striped hyena, African wild dog, giraffe or monkey. Animal Prints date from the early nineteenth century, when Napoleon brought back real hides collected on the expedition to North Africa. They are generally expensive and hence they are a symbol of wealth and status. They are used for decorations, including rugs, wallpaper, or painted surfaces. The colors used in these prints are those found on the animal's body which generally are shades of brown, black and white.



Animal prints

**35.** What are the differences between pigments and dyes ? **(3)**

**Ans.**

PIGMENTS	DYES
Intense color, insoluble in water or & Common solvents	Intense color, must have solubility in water during dyeing stage
Are not made to have substantivity to fibers	Must have substantivity to the fiber during dyeing stage.
Molecular size varies from small to large size	Molecular size must be small enough to allow the molecules to penetrate the fibers
Durability depends upon binders used	Able to acquire durability to we treatments.

**36.** Write Dry Brush Technique in relevance to material required, steps, precautions and results. **(3)**  
**Ans.** The dry brush effect adds a three dimensional feel to the print. An interesting stencil can be made, kept over a sheet of paper and a dry brush can be brushed cover the stencil creating interesting shapes with textures.  
 Material required:

- Drawing/Cartridge sheets(Different textures)
- Acrylic colours/poster paints mixed with fevicol
- Paintbrush Different sizes

	<ul style="list-style-type: none"> <li>• Water container</li> <li>• Colour palette/Mixing bowl</li> </ul> <p>Step:</p> <ul style="list-style-type: none"> <li>• Take a drawing sheet.</li> <li>• Put the dry paint brush in acrylic paints.</li> <li>• Make any design of your choice on the sheet</li> <li>• Use different colour and sizes of brush for making of different designs</li> </ul> <p>Precautions:</p> <ul style="list-style-type: none"> <li>• Wash the brush properly before dipping and using another colour</li> <li>• Dry the brush before putting it in acrylic colours.</li> </ul> <p>Results:</p> <p>Different textured sheet after application of dry brush will look little more embossed and the entire design gets a three dimension feel.</p>	
37.	<p>What are the End Uses of Chikankari?</p> <p><b>Ans.</b> Traditionally the embroidery was done mainly for male garments such as kurta, bandi, choga etc. for summer wear. Presently chikankari is being explored for apparel as well as home products on different fabrics like crepe silks, chiffons, georgettes and cotton polyester blends. Ladies suits, saares, scarves, duppatas are also made from chikankari. Bed spreads, cushion Covers, curtains are also made from chikankari.</p>	(3)

**Answer any 3 questions out of the given 5 questions of 5 marks each:**

38.	<p>What are the basic steps to create bhandhani textile? Describe it elaborately.</p> <p><b>Ans.</b> The basic steps of creating a bandhani textile are as follows:</p> <ul style="list-style-type: none"> <li>• <b>Pre-preparation of fabric:</b> The fabric generally used for tie and dye is finer variety of cotton and silk, so that dye can penetrate deep into the layers of tied fabrics. It is soaked in water overnight and washed thoroughly to remove the starch in order to improve its dye uptake. The fabric is bleached by drying it in the sun.</li> <li>• <b>Tracing of design:</b> The fabric is folded into four or more layers for convenience of tying as well as to achieve symmetry in design. The design layout is marked on the folded fabric with wooden blocks, dipped in washable colours like <i>neel</i> or <i>geru</i>.</li> <li>• <b>Tying of fabric:</b> as per the design, the folded fabric is raised with a pointed metal nail worn over the finger. A cotton thread coated with wax is wrapped tightly around the raised area to create a simple fine dot: <i>bundi</i> or <i>bindi</i>, which is the basic motif of the design.</li> <li>• <b>Dyeing of fabric in the lightest colour:</b> after tying, the fabric is dyed in the lightest colour first from the selected colour scheme. After dyeing, fabric is washed, rinsed and dried.</li> <li>• <b>Renewal of tying and dyeing in next-darker colour:</b> Parts of the fabric to be retained in the lighter colour are covered with tying and then the fabric is dyed in the next darker colour. The Process of re-tying and dyeing is continued till the darkest colour in the scheme is applied.</li> </ul>	(5)
-----	--	-----

	<ul style="list-style-type: none"> <li>• <b>Washing:</b> Following the final dyeing, the textile is washed to remove excess dye and starched.</li> <li>• <b>Opening the ties:</b> The ties of the tie-dyed fabric are kept tied till purchased by a consumer in order to differentiate between a bandhani textile and a printed imitation. Only a portion of the bandhani textile is opened to display the colour scheme to the customer. To unravel the ties, the bandhani textile is stretched crosswise to open all ties at the same time.</li> </ul>	
39.	<p>Describe Bhandhani of Gujrat. What are the different textiles from Gujrat?</p> <p><b>Ans.</b> The tie-dye from Gujarat called Bandhani is regarded for its fine resist dots and intricate designs. Traditionally the tie-dye is done on silk, cotton and wool. The motifs created by outlining with tiny dots are animal and human figures, flowers, plants and trees. The products range varies from <i>odhanis</i>, saris, shawls to stitched garments like <i>kurta</i> and skirts. The major centres of bandhani in gujarat are Jamnagar, Bhavnagar, rajkot and Porbandar.</p> <p><b>Gharcholu:</b> A popular bandhani textile produced in gujarat is called <i>gharchola</i> or <i>gharcholu</i>, a traditional <i>odhani</i> for Hindu brides, which is nowadays available as a sari worn on auspicious occasions. The tie-dyed textile in cotton or silk is red in colour and the layout is a checkerboard created with woven gold threads. Each square within the check contains a different tie-dyed motif like dancing lady, parrot, elephant, peacock, flowering shrub and geometric forms.</p> <p><b>Chandrokhani:</b> The traditional <i>odhani</i> for a Muslim bride in red and black colour is called <i>chandrokhani</i>. It is a tie-dyed textile with a big medallion in the centre surrounded by four smaller medallions and wide borders (Pic. 2.4). Motifs created with small tie dye dots are small paisleys, zig zag lines, sunflowers etc.</p>	(5)
40.	<p>What are different Block Printed Textiles of Rajasthan? Describe each of them with illustrations.</p> <p><b>Ans.</b> <b>Bagru prints from rajasthan</b></p> <p><b>Region:</b> Bagru is a small village in rajasthan, which is known for its mud-resist block prints.</p> <p><b>Technique:</b> In Bagru, the printer first processes the raw material which is mainly cotton. Other natural fabrics are silk, cotton and silk blends etc. The fabric is then printed with mordants in paste form. The printing is done by using outline and filling blocks. The prints are then covered with a resisting paste 'dabu' made of clay and gum. It is then dried and dyed in vegetable dye. The mud resist paste is used to resist the penetration of dyes, mainly vegetable dyes on cotton fabric as per the design. after dyeing the fabric is thoroughly washed at the river. The mud resist paste is washed off exposing printed motifs on white background surrounded by the base colour. Hence, the resulting effect of dark and deep background with light coloured prints is achieved by resisting and mordanting.</p> <p><b>Motifs:</b> The motifs are inspired by the 17th century Persian motifs and are classified into the following five categories:</p> <ul style="list-style-type: none"> <li>• Single motifs like flowers, leaves and buds. Some examples are <i>suraj ka phool</i>, <i>chakri</i>, <i>anguthi</i>, <i>gende ka phool</i>.</li> </ul>	(5)

- entwined tendrils that include all over *jaal* of leaves, flowers and buds.
- Trellis patterns include *jaalis* from the Mughul period.
- Figurative designs that include animal and human figures such as elephant, deer, lion, peacock, dancing women, warrior men etc.

geometric designs include waves (*lehariya*), chess (*chaupad*), Fortress wall projections (*kangura*), lines (*dhariya*), dots (*bindi*) etc

**End use:** The brightly coloured block printed fabrics from Bagru are used for apparel as well as home furnishings such as quilts, bedspreads, cushions and curtains.

### Sanganer prints from rajasthan

**Region:** Sanganer on the outskirts of Jaipur is a large centre for printing on fabrics. Many block printing and screen printing units are located here.

**Technique:** The technique used by the printers in Sanganer is much simpler than Bagru. The bright vibrant colours are printed on white, off white or light colour background. Firstly the outlines are printed with fine blocks and then varied colours are filled in with a set of blocks. For each colour, a separate block is required.

**Motifs:** The motifs seen in Sanganer prints are same as the ones used in Bagru.

**End use:** The block printing is done mainly for products such as saris, *dupattas*, *salwar kameez* sets, bedcover, curtains, scarves, and yardage for apparel and home.



Geometrical design on block printed fabric

41. Describe Direct Prints, Discharge Prints and Resist Prints. Illustrate also.

**Ans.**

**Direct Prints** This print is also called an application print and it is most popular types of print style. In this print design is printed directly onto a white cloth or over a previously dyed pale coloured fabric. In this print, the printed portion is considerably darker than the dyed backgrounds. The background is generally white, or has larger portions of white background. The printed design is lighter in shade on back of the fabric than on the face. This may not be evident on lightweight fabrics because of the strike-through of the print paste.

**Discharge Prints** In this type of prints, Fabrics are generally dyed in a solid color, prior to printing, the design is applied by screen or roller with a chemical (sodium sulphoxylate formaldehyde, a reducing agent). This reducing agent will destroy the colour in the printed portion and white background will appear in the printed area.

**Discharge print** can be made by roller & screen methods, but not by heat transfer printing. Discharge Prints are not widely used due to following reasons :

(5)

Production is more costly than direct print because fabric is to be dyed prior to printing. Very careful and precise process control is required. Developments of automatic rotary screen-printing, high quality blotch prints, which can produce the same effect at lower cost.

**Resist Prints** In this type of prints, the fabric is printed in two steps. In first step, pattern or design is printed on a white fabric with a chemical (wax-like resinous substance) that will prevent or resist the penetration of dyes. In second step, the fabric is dyed by piece dyeing method. Resist prints are not popular type of printing on fabric. It is generally used where removing of background colour from the fabric is very difficult. It is performed as craft or hand printing rather than on production basis. Generally used for Batik prints, tie-dye prints and ikat prints.



Direct Prints



Discharge Prints



Resist Prints

42. Describe Phulkari in respect of Region, Technique, Motifs, style of embroidery and End uses. (5)

**Ans.**

**Phulkari**

**Region:** Phulkari is an embroidery style that originated in Punjab. It is used and embroidered in different parts of Punjab namely Jalandhar, amritsar, Kapurthala, Hoshiarpur, ludhiana, Ferozepur, Bhatinda and Patiala.

The earliest available article of phulkari embroidery is a rumal embroidered during 15th century by Bibi Nanaki, sister of guru Nanak dev. The needlework is widely practiced by the women of Punjab and holds significance in a life of a woman, from her marriage till her final abode to heaven.

**Technique:** The base material to execute Phulkari is handspun and handwoven *Khaddar* that is dyed in red, rust, brown, blue and darker shades. Soft untwisted silk thread 'Pat' is used for the embroidery. The colours of the thread are red, green, golden yellow, orange, blue etc. The basic stitch employed for Phulkari is darning stitch, which is done from the reverse side of the fabric. The stitches follow the weave and a beautiful effect is created on the fabric by changing the direction of the stitches. For outlining of motifs and borders, stem, chain and herringbone stitches are sometimes used.

**Motifs:** The motifs used in Phulkari are inspired by objects of everyday use like rolling pin, sword, flowers, vegetables, birds, animals etc. They are generally geometrical and stylized. Usually one motif is left unembroidered or is embroidered in an offbeat colour. This motif is called 'nazarbuti' which is considered to ward off the evil eye.

**Style of embroidery:** The two embroidery styles prevalent in Punjab are Bagh and Phulkari. Bagh is a fully embroidered wrap that is used for special occasions whereas Phulkari is simple and lightly embroidered for everyday use.

**End use:** Phulkari is an important part of the bridal trousseau and is worn as a veil or wrap by women on special occasions like Karva Chauth, a festival

	<p>celebrated in North India for longevity of husbands. A specific pattern of Phulkari is also used as canopy on religious occasions. Presently; Phulkari is being done on bed linen and apparel like tops, tunics and skirts.</p>	
--	--	--