

<p style="text-align: center;">Marking Scheme Strictly Confidential (For Internal and Restricted use only) Secondary School Examination, 2026 (Xth) SUBJECT NAME : Design Thinking & Innovation (Q.P. CODE /Set No. 422/109)</p>	
<u>General Instructions: -</u>	
1	You are aware that evaluation is the most important process in the actual and correct assessment of the candidates. A small mistake in evaluation may lead to serious problems which may affect the future of the candidates, education system and teaching profession. To avoid mistakes, it is requested that before starting evaluation, you must read and understand the spot evaluation guidelines carefully.
2	“Evaluation policy is a confidential policy as it is related to the confidentiality of the examinations conducted, evaluation done and several other aspects. Its leakage to public in any manner could lead to derailment of the examination system and affect the life and future of millions of candidates. Sharing this policy/document to anyone, publishing in any magazine and printing in Newspaper/Website, etc. may invite action under various rules of the Board and IPC.”
3	Evaluation is to be done as per instructions provided in the Marking Scheme. It should not be done according to one’s own interpretation or any other consideration. Marking Scheme should be strictly adhered to and religiously followed. However, while evaluating, answers which are based on latest information or knowledge and/or are innovative, they may be assessed for their correctness otherwise and due marks be awarded to them. In Class-X, while evaluating two competency-based questions, please try to understand given answer and even if reply is not from marking scheme but correct competency is enumerated by the candidate, due marks should be awarded.
4	The Marking scheme carries only suggested value points for the answers. These are in the nature of Guidelines only and do not constitute the complete answer. The students can have their own expression and if the expression is correct, the due marks should be awarded accordingly.
5	The Head-Examiner must go through the first five answer books evaluated by each evaluator on the first day, to ensure that evaluation has been carried out as per the instructions given in the Marking Scheme. If there is any variation, the same should be zero after deliberation and discussion. The remaining answer books meant for evaluation shall be given only after ensuring that there is no significant variation in the marking of individual evaluators.
6	Evaluators will mark (√) wherever answer is correct. For wrong answer CROSS ‘X’ be marked. Evaluators will not put right (√) while evaluating which gives an impression that answer is correct and no marks are awarded. This is most common mistake which evaluators are committing.
7	If a question has parts, please award marks on the right-hand side for each part. Marks awarded for different parts of the question should then be totaled up and written in the left-hand margin and encircled. This may be followed strictly.
8	If a question does not have any parts, marks must be awarded in the left-hand margin and encircled. This may also be followed strictly.
9	If a student has attempted an extra question, answer of the question deserving more marks should be retained and the other answer scored out with a note “Extra Question” .

10	No marks to be deducted for the cumulative effect of an error. It should be penalized only once.
11	A full scale of marks _____ (example 0 to 80/70/60/50/40/30 marks as given in Question Paper) has to be used. Please do not hesitate to award full marks if the answer deserves it.
12	Every examiner has to necessarily do evaluation work for full working hours i.e., 8 hours every day and evaluate 20 answer books per day in main subjects and 25 answer books per day in other subjects (Details are given in Spot Guidelines). This is in view of the reduced syllabus and number of questions in question paper.
13	<p>Ensure that you do not make the following common types of errors committed by the Examiner in the past :-</p> <ul style="list-style-type: none"> • Leaving answer or part thereof unassessed in an answer book. • Giving more marks for an answer than assigned to it. • Wrong totaling of marks awarded on an answer. • Wrong transfer of marks from the inside pages of the answer book to the title page. • Wrong question wise totaling on the title page. • Wrong totaling of marks of the two columns on the title page. • Wrong grand total. • Marks in words and figures not tallying/not same. • Wrong transfer of marks from the answer book to online award list. • Answers marked as correct, but marks not awarded. (Ensure that the right tick mark is correctly and clearly indicated. It should merely be a line. Same is with the X for incorrect answer.) • Half or a part of answer marked correct and the rest as wrong, but no marks awarded.
14	While evaluating the answer books if the answer is found to be totally incorrect, it should be marked as cross (X) and awarded zero (0) Marks.
15	Any unassessed portion, non-carrying over of marks to the title page, or totaling error detected by the candidate shall damage the prestige of all the personnel engaged in the evaluation work as also of the Board. Hence, in order to uphold the prestige of all concerned, it is again reiterated that the instructions be followed meticulously and judiciously.
16	The Examiners should acquaint themselves with the guidelines given in the “Guidelines for Spot Evaluation” before starting the actual evaluation.
17	Every Examiner shall also ensure that all the answers are evaluated, marks carried over to the title page, correctly totaled and written in figures and words.
18	The candidates are entitled to obtain photocopy of the Answer Book on request on payment of the prescribed processing fee. All Examiners/Additional Head Examiners/Head Examiners are once again reminded that they must ensure that evaluation is carried out strictly as per value points for each answer as given in the Marking Scheme.

MARKING SCHEME
DESIGN THINKING AND INNOVATION (Subject Code-422)
(PAPER CODE : 109) (M1090422)

Q.No.	EXPECTED OUTCOMES/VALUE POINTS	Marks
	Answer any 4 out of given 6 questions on employability skills	4x1=4
	SECTION – A	1
1.(i)	(a) Specific feedback U-1 pg18	1
(ii)	(b) Realistic U-2 pg56	1
(iii)	(b) Ability U-2 pg48	1
(iv)	(d) Check for expiry of antivirus software and renew U-3 pg76	1
(v)	(d) Fostering innovation and economic growth U-4 pg93	1
(vi)	(d) Space Research U-5 pg106	1
	Answer any 5 out of given 6 questions on employability skills	5x1=5
2. (i)	(c) Maintainong eye-contact and using open body language (DTI pg-12)	
(ii)	(b) Organisational barrier --- DTI-11	
(iii)	(c) Validate --- DTI p.71	
(iv)	(c) Lateral thinking --- DTI p.30	
(v)	(c) Radio Broadcasts (DT1 pg 30)	
(vi)	(b) Local sourcing & seasonal eating --- DTI p.56	
	Answer any 5 out of given 6 questions on employability skills	5x1=5
3. (i)	(b) Artists and Musicians (DTI pg-30)	
(ii)	(a) Paper mockup --- DTI p.71	
(iii)	(c) Blueprint --- DTI p.17	
(iv)	(b) Analogical thinking --- DTI p.30	
(v)	(a) practice, read, observe (DTI pg-10)	
(vi)	(c) Text, shape, design elements --- DTI p.50	
	Answer any 5 out of given 6 questions on employability skills	5x1=5
4. (i)	(a) Both A and R correct; R explains A --- DTI p.32	1
(ii)	(a) Sequentially --- DTI p.47	1
(iii)	(c) Growing vegetables --- DTI p.56	1
(iv)	(c) A correct, R not correct --- DTI p.20	1
(v)	(c) divergent thinking (pg-30-DTI)	1
(vi)	(b) Scenario simulation --- DTI p.74	1
	Answer any 5 out of given 6 questions on employability skills	5x1=5
5. (i)	(b) Visualising process-based interaction --- DTI p.74	1

(ii)	(a) Spontaneous emotional creativity --- DTI p.29	1
(iii)	(d) key frame animation (pg 30 DTI)	1
(iv)	(c) Puppet Animation DTI p.50	1
(v)	(c) Interdependence of consumption & natural processes --- DTI p.61	1
(vi)	(b) Solar powered chargers (DTI-61)	1
SECTION B --- SUBJECTIVE QUESTIONS		
	Answer any 3 out of given 5 questions on employability skills. Answer each question in 20-30 words	3x2=6
6.	As there are various stakeholders like customers, employees, vendors, media etc, are always sending important information to each other. It has three important parts 1) Transmitting 2) Listening 3) Feeding	2
7.	1) Self – Awareness 2) Responsibility 3) Time Management 4) Adaptability (any other relevant point)	2
8.	1) Roll over or Hover 2) Point and click 3) Drag and drop 4) Double click	2 U-3 pg67 (0.5 × 4)
9.	a) A career in a line of work that a person takes for life b) Two ways are :- i) Self employment ii) Wage employment	1+1=2 U-4 pg-100
10.	To reduce inequalities we can:- 1) Be helpful to one another 2) Be friendly with everyone 3) Include everyone while working or playing 4) Help others by including everyone whether they are small or big, boy or girl, belong to any class or caste	2 U-5 Pg-111
	Answer any 4 out of given 6 questions in 20-30 words each	4x2=8
11.	Define ‘storyboarding’ in the context of design. (2 marks) Storyboarding is sequencing of sketches or visuals. (1 mark) It maps the user’s journey or flow of an idea before prototyping. (1 mark) Ref: DTI p.17	2
12.	State the role of active listening in effective communication. (2 marks) Ensures clarity of the message, prevents miscommunication. (1 mark) Builds trust and shows respect to the speaker. (1 mark) Ref: DTI p.41	2

13.	Distinguish between low-fidelity and high-fidelity prototyping. (2 marks) Low-fidelity: simple sketches/paper models, quick and cheap. (1 mark) High-fidelity: interactive, near-final models for detailed testing (1 mark) Ref: DTI p.71	2
14.	Examples of sustainable technology are – a) solar power b) wind energy c) green building material d) eco friendly transportation (DTI pg60)	2
15.	How does squash and stretch add realism to animation ?(2 marks) Shows elasticity and flexibility of objects (e.g., ball squashes on impact). (1 mark) Makes motion appear natural and believable. (1 mark) Ref: DTI p48	2
16.	Differentiate between spontaneous and deliberate creativity. (2 marks) Spontaneous: arises instantly, emotionally or intuitively. (1 mark) Deliberate: systematic, uses planned techniques or brainstorming. (1 mark) Ref: DTI p.29	2
	Answer any 3 out of given 6 questions 50-80 words each	3x4=12
17.	Storyboard of mother managing child’s medication. (4 marks) Effective because : Presents real – life user context and pain points. (1 mark) Clearly communicates solution/benefit. (1 mark) Difference from prototype: 3. storyboard is narrative/visual representation. (1 mark) 4. prototype is functional/testable model. (1 mark) Ref : DTI p.17	4
18.	Arjun dominates group work. Identify barrier & suggest two strategies. (4 marks) Barrier: Interpersonal communication barrier due to dominance. (1 mark) Strategies: Structured turn-taking to ensure equal participation. (1 mark) Training in assertive communication/active listening. (1 mark) Teacher mediation to balancing group input. (1 mark) Ref: ES p.55	4
19.	Hand-drawn screens tested via role-play. (4 marks) Type: Low-fidelity paper prototype with scenario simulation. (1 mark) Importance:	4

	<p>Quick, inexpensive way to test ideas. (1 mark)</p> <p>Allows early feedback on usability. (1 mark)</p> <p>Captures user's emotions and reactions in context. (1 mark)</p> <p>Ref: DTI p.71</p>	
20.	<p>Student redesigns school bag using tree analogy. (4 marks)</p> <p>Method: Analogical thinking. (1 mark)</p> <p>Benefits:</p> <p>Transfers natural features (branching, load distribution) to design. (1 mark)</p> <p>Inspires novel, creative solutions. (1 mark)</p> <p>Enhances functionality and originality. (1 mark)</p> <p>Ref: DTI p.38</p>	4
21.	<p>EcoBox case study. (4 marks)</p> <p>Demonstrates sustainability: eco-friendly, reusable, compostable packaging. (1 mark)</p> <p>Key features:</p> <p>Use of compostable raw materials like rice husk, corn starch. (1 mark)</p> <p>Designed for reuse and lifecycle mapping. (1 mark)</p> <p>Reduces environmental footprint. (1 mark)</p> <p>Ref: DTI p.63</p>	4
22.	<p>NGO animated short film. (4 marks)</p> <p>Style: Motion graphics with infographics and dynamic text. (1 mark)</p> <p>Educational support:</p> <p>Simplifies complex ideas into visuals. (1 mark)</p> <p>Increases engagement and retention. (1 mark)</p> <p>Effective tool for awareness campaigns. (1 mark)</p> <p>Ref: DTI p.44</p> <p>ES: Employability Skills class 10 Textbook</p> <p>DTI: Design Thinking and Innovation Taskbook for Grade 10</p>	4