



A-2018

3824

Time: 3 hours

Maximum Marks: 300

READ THE INSTRUCTIONS CAREFULLY**GENERAL**

- This sealed booklet is your Question Paper. Do not break the seal till you are told to do so.
- Immediately after breaking the seal of the booklet, verify that the booklet contains 24 pages and that all the 16 questions along with the options are legible. Report immediately about any missing or torn sheet in this booklet and ask for a replacement of the booklet from the invigilator. No replacement will be allowed after 15 minutes of the starting of the examination.
- Write your Name, Roll Number, JEE (Adv) 2018 Rank and other details in the space provided and nowhere else. No distinctive / identification mark of any type is to be put anywhere else in this booklet.
- Answers are to be written only in the booklet and within the space provided beside / below each Question and nowhere else. Answers written in non-designated place will not be evaluated.
- Blank spaces are provided within this booklet for rough work.
- Do not deface this booklet or detach or mutilate any sheet from the booklet. Such acts lead to disqualification.
- The question paper has five sections.
- All the Questions are compulsory.

Total Marks Obtained :**In Numbers :****In words :****Signature of the Examiner with date****Signature of the Scrutinizer with date**

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3824

NAME : _____**ROLL NO. :** _____**JEE (ADV) 2018 RANK :** _____**CATEGORY :** _____**CATEGORY RANK (IF APPLICABLE) :** _____**EXAMINATION CENTRE :** _____**I HAVE READ ALL THE INSTRUCTIONS AND SHALL ABIDE BY THEM****Signature of the Candidate****Signature of the Invigilator after verification of identity and other details****See the back cover of this booklet for the marking scheme***Shalabh
Amit***DO NOT BREAK THE SEAL WITHOUT BEING INSTRUCTED TO DO SO BY THE INVIGILATOR****SEAL****SEAL**



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SECTION A: Architectural Awareness (Maximum Marks: 60)

This Section contains **FOUR (04)** questions. Question 1 carries **30 marks**, Questions 2, 3 and 4 carry **10 marks** each. There is **NO** negative marking.

Q.1. This Section contains **15 multiple choice questions**. Each question has four options, out of which **ONLY ONE** is correct. Mark the correct option with a tick mark. **(15×2=30 Marks)**

(i) What led to collapse of the monument Dharahara at Kathmandu ?

Terrorist attack

Flash flood

Earthquake

Fire

(ii) Amongst the following, which is the longest bridge in India ?

Dr. Bhupen Hazarika Setu on Lohit

Mahatma Gandhi Setu on Ganges

Bandra –Worli Sea Link on Mahim Bay

Kovvur- Rajamundry Bridge on Godavari

(iii) Acoustically, the purpose of putting carpet in an auditorium is

Sound absorption

Sound diffusion

Sound reflection

Sound diffraction

(iv) The only Indian city enlisted in UNESCO World Heritage list is

Bhubaneswar

Delhi

Ahmedabad

Chandigarh



(v) Which of the following elements is a characteristic feature of Roman architecture ?

Pyramid

Minaret

Flying buttress

Aqua duct

(vi) Yellow and Blue colours, when mixed in equal amount, produce

Cyan

Green

Magenta

Orange

(vii) Which of the following purposes is NOT served by a boundary wall made up of planter boxes ?

Dust control

Noise reduction

Enhancement of aesthetic quality

Total visual privacy

(viii) Identify the software used for technical drafting.

Paint

AutoCAD

CorelDRAW

Adobe Photoshop

(ix) The city of Daulatabad in Maharashtra is famous for

Fort

Palace

Mosque

Temple



(x) The Great Stupa at Sanchi resembles which of the following geometric form ?

Spherical

Hemispherical

Ellipsoidal

Cylindrical

(xi) Surajkund is famous for

Contemporary Art Biennale

Cattle fair

Camel fair

International Craft Mela

(xii) Which of the following road signage is NOT meant to be used in front of a school ?



(xiii) Who is the author of "Malgudi Days" ?

R. K. Narayan

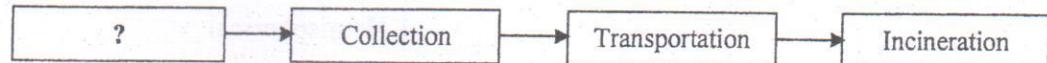
Ramachandra Guha

R.K. Laxman

Chetan Bhagat



(xiv) Which of the following activities is most appropriate for completing the waste disposal chain given below ?



Landfill

Biogas production

Recycle

Segregation

(xv) What is the maximum number of cookies of **4 cm** diameter each that can entirely fit in a dish of **12 cm** diameter without any overlap or spill over ?

Seven

Nine

Six

Five

Q.2 Who am I ?

Match the descriptions in Column – I with the materials in Column – II to answer “Who am I”.

(5×2=10 Marks)

Column – I	Column – II
(A) I am transparent and fragile	<input type="checkbox"/> (P) Brick
(B) I am red in colour and made of soil	<input type="checkbox"/> (Q) Iron
(C) I am strong but prone to corrosion	<input type="checkbox"/> (R) Glass
(D) I am strong but eaten away by termites	<input type="checkbox"/> (S) Plastic
(E) I am a metal and light in weight	<input type="checkbox"/> (T) Timber
	<input type="checkbox"/> (U) Aluminum



Q.3 Match the building components in Column – I with their corresponding functions mentioned in Column – II. (5×2=10 Marks)

Column – I	Column – II
(A) Sloping roof	<input type="checkbox"/> (P) Evaporative cooling
(B) Lattice screen or Jali	<input type="checkbox"/> (Q) Rainfall drainage
(C) Large window opening	<input type="checkbox"/> (R) Reflection of solar radiation
(D) Fountain in courtyard	<input type="checkbox"/> (S) Sunlight diffusion
(E) Flat roof with lime-wash	<input type="checkbox"/> (T) Water absorption
	<input type="checkbox"/> (U) Unobstructed view

Q.4 Match the buildings in Column – I with the architects in Column – II. (5×2=10 Marks)

Column – I	Column – II
(A) Parliament Library, New Delhi	<input type="checkbox"/> (P) Moshe Safdi
(B) Centre for Development Studies, Thiruvananthapuram	<input type="checkbox"/> (Q) Charles Correa
(C) TCS Deccan Park, Hyderabad	<input type="checkbox"/> (R) Raj Rewal
(D) Bihar Museum, Patna	<input type="checkbox"/> (S) Laurie Baker
(E) Virasat-e-Khalsa Museum, Anandpur Sahib	<input type="checkbox"/> (T) Fumihiko Maki
	<input type="checkbox"/> (U) Mario Botta



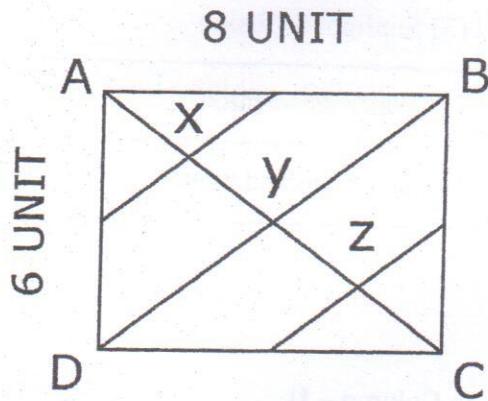
SECTION B: Geometrical Drawing (Maximum Marks: 60)

This Section contains **THREE (03)** questions. Each question carries **20** marks.

Q.5 Consider the figure given below. The diagonal AC divides the rectangle ABCD (6 unit x 8 unit) into two triangles, ABC and ADC. The sides of the rectangle are bisected and midpoints of the adjacent sides are joined, intersecting the diagonal AC at x and z. Diagonal BD intersects AC at y.

The triangle ABC is to be overlapped with the triangle ADC using clockwise rotation with respect to point C, followed by translation. Draw the process in two steps, clearly indicating the degree of rotation, unit of translation, and new positions of A, B, C, x, y, and z by marking them as A', B', C', x', y' and z' respectively.

(20 Marks)





Q.6 Draw the mirror image of the following word, magnified 1.5 times.

(20 Marks)

QUEST

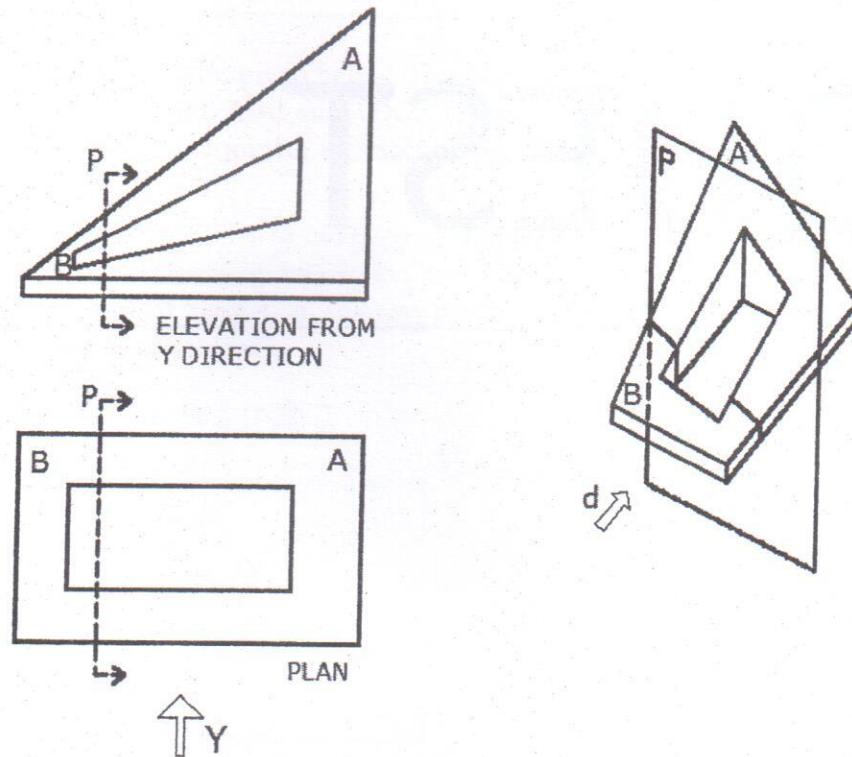
← Mirror





Q.7 The plane 'P' cuts the object, shown below, in two parts A and B. Draw the elevation of A from direction 'd' after removing part B.

(20 Marks)

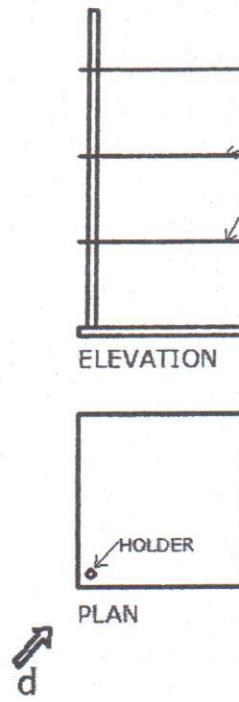




SECTION C: 3D Perception (Maximum Marks: 60)

This Section contains THREE (03) questions. Each question carries 20 marks.

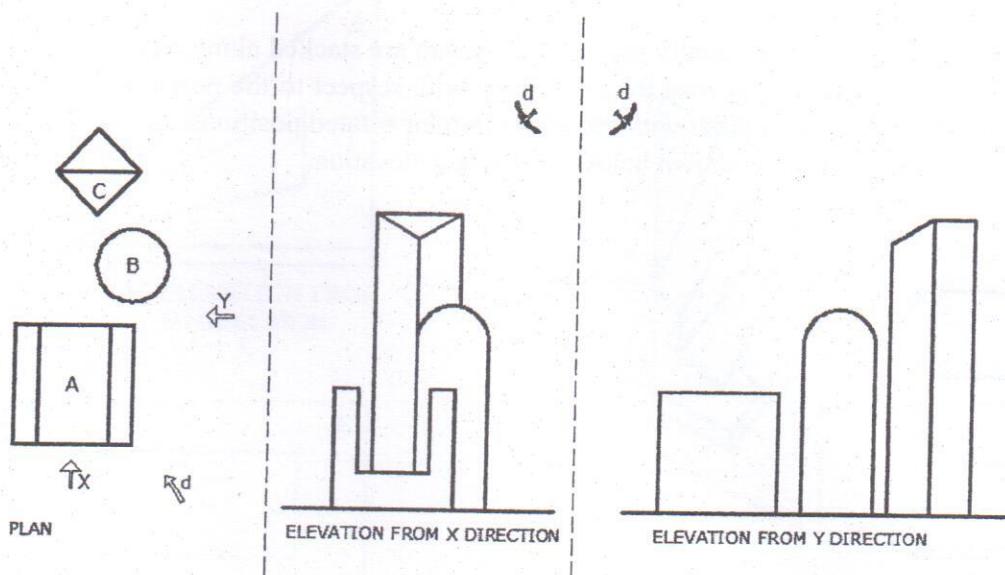
Q.8 Three square shaped metal plates equally separated by a gap are stacked along a circular holder. Each plate is now rotated anticlockwise by 30 degrees with respect to the previous one. Draw a three dimensional view of the holder with the plates in their rotated positions, as seen from direction 'd'. The initial position is shown below in plan and elevation. **(20 Marks)**





Q.9 Draw a Bird's eye view of the following group of objects A, B and C, looking from direction 'd'.

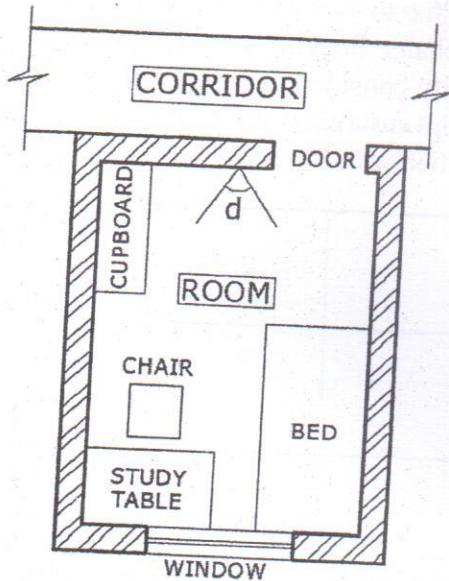
(20 Marks)





Q.10 Given below is the plan of a hostel room of dimension $2.7 \text{ m} \times 3.5 \text{ m}$. Height of the room is 3.0 m . Draw the view of the hostel room from point 'd' at **eye level**, showing all the furniture in correct proportion.

(20 Marks)





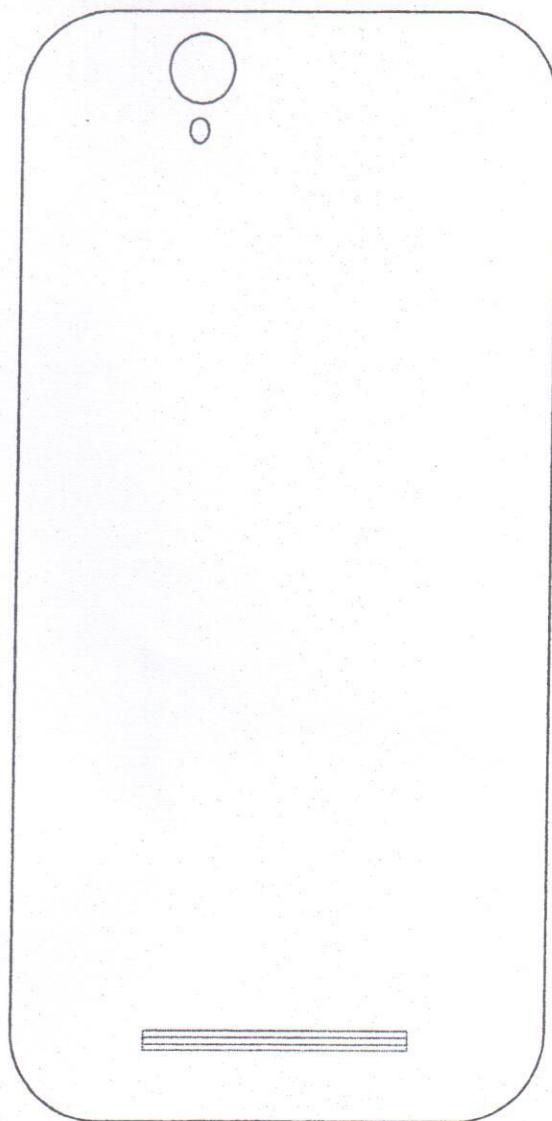
SECTION D: Imagination and Aesthetic Sensitivity (Maximum Marks: 60)

This Section contains **THREE (03)** questions. Each question carries **20** marks.

Q.11 In a hill station, the owner of a garden café is in a fix to select appropriate chairs. The options available to the owner are plastic, wood or iron chairs. Imagine a dialogue amongst the **three chairs** convincing the café owner of their suitability considering users' comfort, ease of handling and prolonged exposure to weather. Write the script ensuring that all three chairs equally participate in the conversation. You may start the conversation with any of the chairs. (20 Marks)



Q.12 In the template given below, design a mobile back cover for a celebrity of your own choice. The cover design should reflect the personality and profession of the celebrity. Use any three colours.
Mention name and profession of the celebrity. (20 Marks)



Name and profession of the celebrity:



Q.13 Using any one particular shape of your choice, make a composition with **UNITY** as the theme. Use the shape in various ways like repetition, rotation and scaling. (20 Marks)





SECTION E: Freehand Drawing (Maximum Marks: 60)

This Section contains **THREE (03)** questions. Each question carries **20** marks.

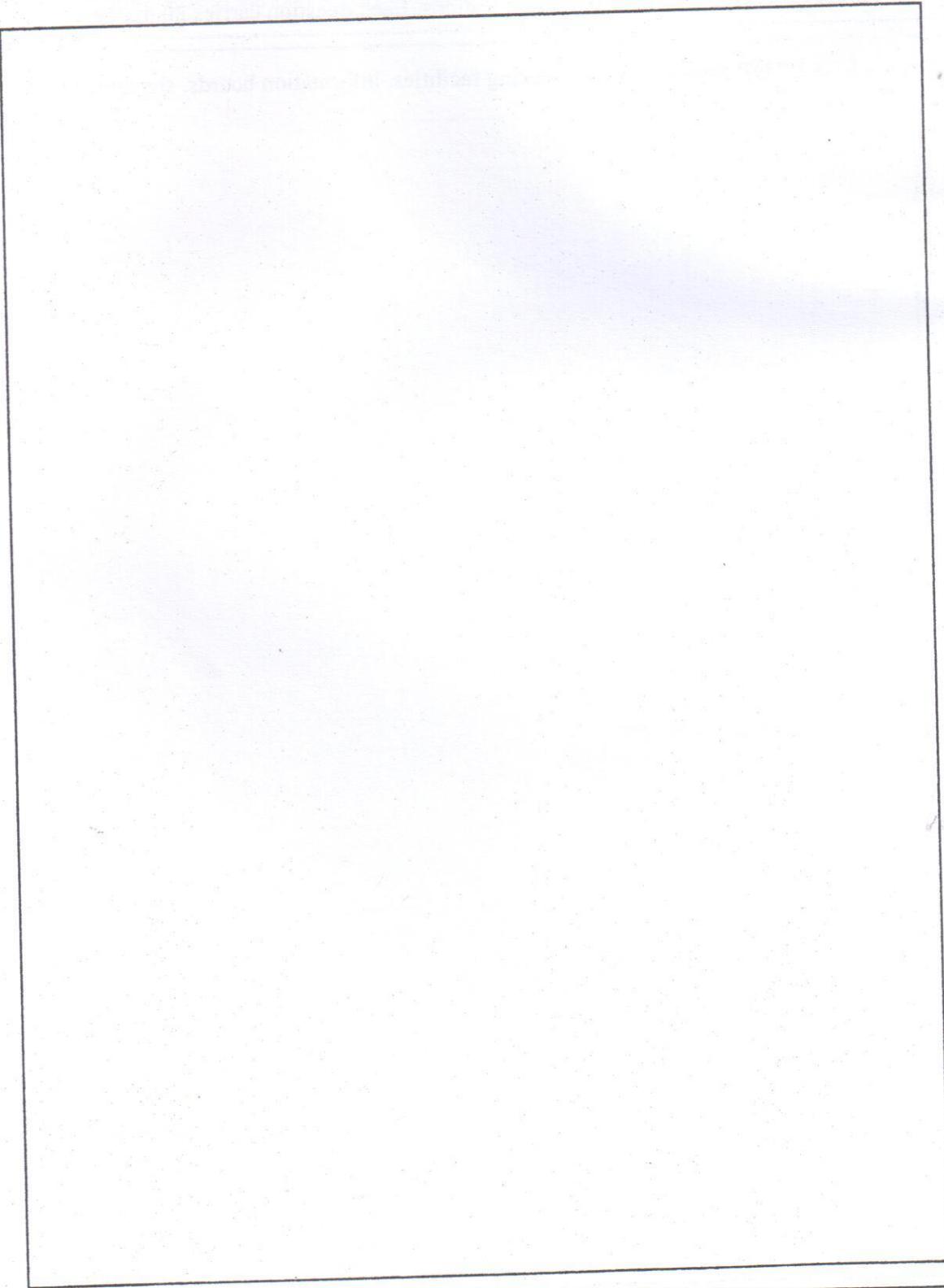
Q.14 Draw a **BUS-STOP** showing built-in seating facilities, information boards, signage and people waiting for the bus. **(20 Marks)**





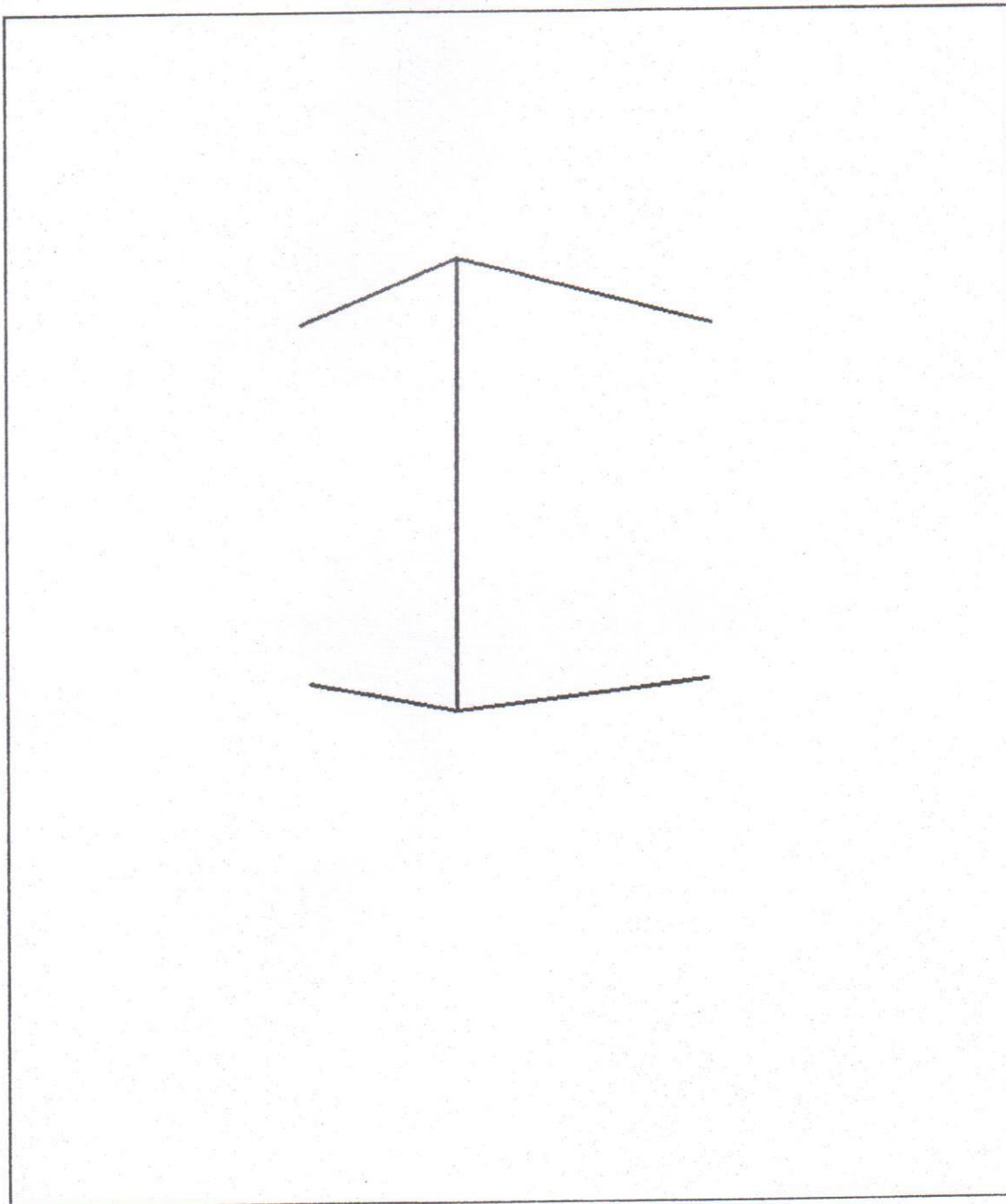
Q.15 Draw and colour a flower-vase with flowers in the space given below.

(20 Marks)





Q.16 Considering a building profile given below, develop a **STREET SCENE** with associated elements. Make the pencil sketch with shades and shadows. (20 Marks)



END OF THE QUESTION PAPER





SPACE FOR ONLY ROUGH WORK





SPACE FOR ONLY ROUGH WORK



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SPACE FOR ONLY ROUGH WORK





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Section-wise Distribution of Marks

Sections	Question No.	Page No.	Maximum Marks	Marks Obtained
Section A (Architectural Awareness)	Q. 1	3 – 6	30	
	Q. 2	6	10	
	Q. 3	7	10	
	Q. 4	7	10	
Section B (Geometrical Drawing)	Q. 5	8	20	
	Q. 6	9	20	
	Q. 7	10	20	
Section C (Three Dimensional Perception)	Q. 8	11	20	
	Q. 9	12	20	
	Q. 10	13	20	
Section D (Imagination and Aesthetic Sensitivity)	Q. 11	14	20	
	Q. 12	15	20	
	Q. 13	16	20	
Section E (Freehand Drawing)	Q. 14	17	20	
	Q. 15	18	20	
	Q. 16	19	20	
TOTAL MARKS			300	