



**MIT INSTITUTE
OF DESIGN**

INDORE



॥ विद्याः मुक्तये विनाम् ॥

avantika
UNIVERSITY

Design Scholarship Test

DST 2024

Question Paper

For B.Des. Program

B. Des. Question Paper-Specific Instructions

1. The test is **3 hours** long and has **55 questions**, for **200 marks**. The paper is divided into three sections: A, B, and C. All sections are compulsory.
2. **Section A (50 marks)** contains **25 Multiple Choice Questions (MCQ)**. Each question has multiple choices, of which **ONLY** one is the correct answer. Each correct answer will be awarded 2 marks. Questions not attempted or answered wrongly will be given zero marks.

Questions from 1 to 25 belong to this section.

3. **Section B (75 marks)** contains **15 Answer Is Number Type (AINT) Questions**. For each question, the answer is a real number up to 2 decimal places. No choices will be shown for these questions. Each correct answer will receive **5 marks**. Questions not attempted or answered wrongly will be given zero marks.

Questions from 26 to 40 belong to this section.

4. **Section C (75 marks)** contains **15 Multiple Select Questions (MSQ)**. Each question may have one or more than one correct choice(s) out of the given choices. A question is correctly answered if **ALL** the correct choices and **NO** wrong choices are selected for that question. Each correct answer will receive **5 marks**. Questions not attempted or answered wrongly will be given zero marks.

Questions from 41 to 55 belong to this section.

The marking scheme for the paper is given below.

Section	Number of Questions	Marks for each correct Question	Marks for each wrong answer	Marks for each question not attempted	Total Marks for the Section
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A- MCQ	25	2	0	0	50
B - AINT	15	5	0	0	75
C - MSQ	15	5	0	0	75
Total	55				200

Section A - MCQ

Section A (50 marks) contains **25 Multiple Choice Questions (MCQ)**. Each question has multiple choices, of which **ONLY** one is the correct answer. Each correct answer will be awarded **2 marks**. Questions not attempted or answered wrongly will be given zero marks. Questions from **1 to 25** belong to this section.

Q.01 The Following Images are what we observe as natural events or natural interventions.



1



2



3



4

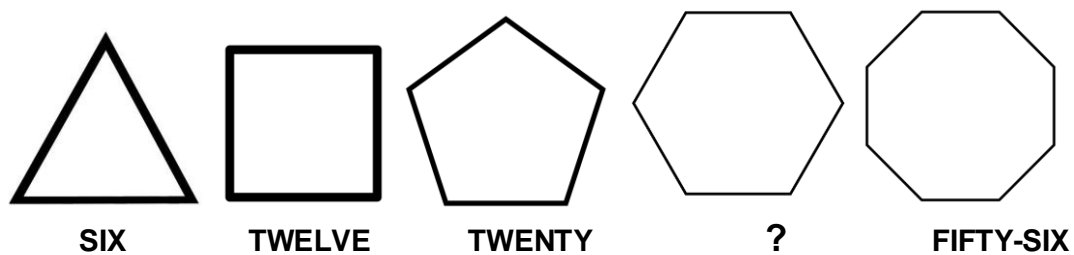
Below are the physical/scientific principles that govern the above natural events and interventions.

Find out the most appropriate match from the given combinations.

- A. Light interference
- B. Surface tension
- C. Conduction of Electric current
- D. Magnetic and Charged dust

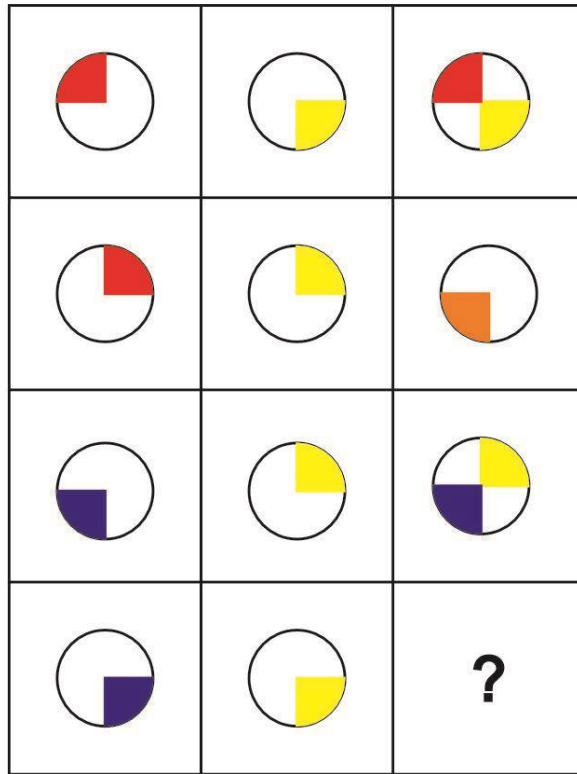
- a) 1-B, 2-C, 3-D, 4-A
- b) 1-A, 2-B, 3-C, 4-D
- c) 1-A, 2-D, 3-C, 4-B
- d) 1-C, 2-B, 3-D, 4-A

Q.02 Select the missing number related to the shape from the following options.



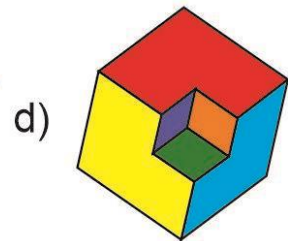
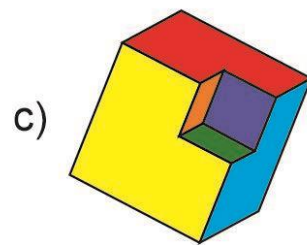
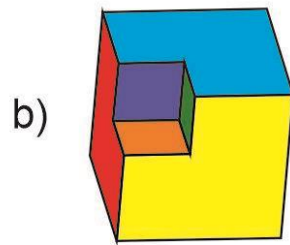
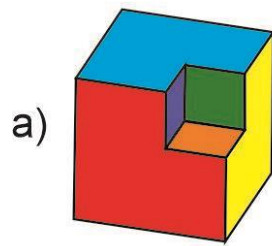
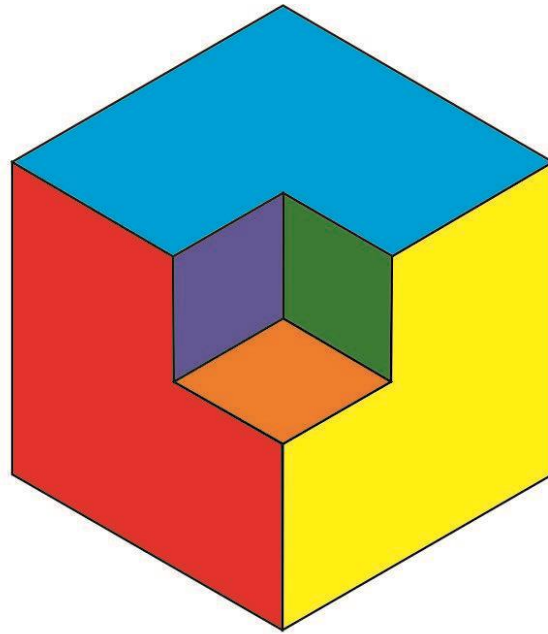
- a) 30
- b) 40
- c) 50
- d) 44

Q. 03 Select the missing figure.



- a)
- b)
- c)
- d)

Q.04 You rotate the Cube below around different axes. Find the odd Cube out of the Options below.



Q.05 What do the following coloured dustbins for waste disposal stand for?
(Please relate to the options clockwise, starting with Blue)



- a) Dry non-biodegradable, Hazardous-medical, Electronics, Recyclable.
- b) Hazardous-medical, Electronics, Recyclable, Dry non-biodegradable
- c) Dry non-biodegradable, Electronics, Recyclable, Hazardous-medical
- d) Recyclable, Dry non-biodegradable, Hazardous-medical, Electronics,

Q.06 Find out what painting Pablo Picasso did not create.



a)



b)

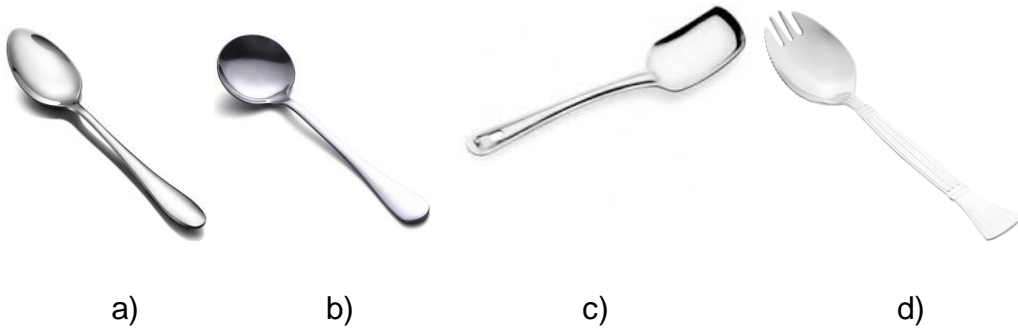


c)



d)

Q.07 Which spoon will be more appropriate for enjoying your soup?



Q.08 Six designers (Aryan, Bela, Charmaine, Dalton, Esha, Farhan) work on four Projects (Product, Branding, Mobile App, Museum)
Each designer works on two projects.

Using the following clues:

1. Aryan works on Product and Branding projects
2. Bela works on Branding and Mobile App projects
3. Charmaine works on the Product project.
4. Dalton works on the Mobile App project.
5. Esha works on the Museum project.
6. Farhan works on the Product project.

How many designers work on the 'Product' project?

- a) 3
- b) 4
- c) 5
- d) 2

Q.09 Which artist does the following collection of images refer to?



- a) Paul Cézanne
- b) Pablo Picasso
- c) Vincent Van Gogh
- d) Gustav Klimt

Q.10 Identify the relationship.

Poet: Muse
 Scientist: ?

- a) Laboratory
- b) Theory
- c) Observation
- d) Experiment

Q.11 Please use five mathematical symbols (Addition, Subtraction, Multiplication, Division and Square root) to complete the following equation.
 Select the correct sequence of symbols used.

Note: Use one mathematical symbol only once.

$$? 64 ? 6 ? 9 ? 4 ? 2 = 11$$

- a) Square root, Add, Subtract, Divide, Multiply
- b) Square root, Subtract, Add, Multiply, Divide
- c) Square root, Add, Subtract, Multiply, Divide
- d) Square root, Subtract, Multiply, Add, Divide

Q.12 Which numeral option is not part of the font in the word below?

Designer

5 2 3 8

- a)
- b)
- c)
- d)

Q.13 Which word does not belong to the world of colours?

- a) CMYK
- b) Value
- c) Chroma
- d) Serif

Q.14 Which word does not belong to the world of Typography?

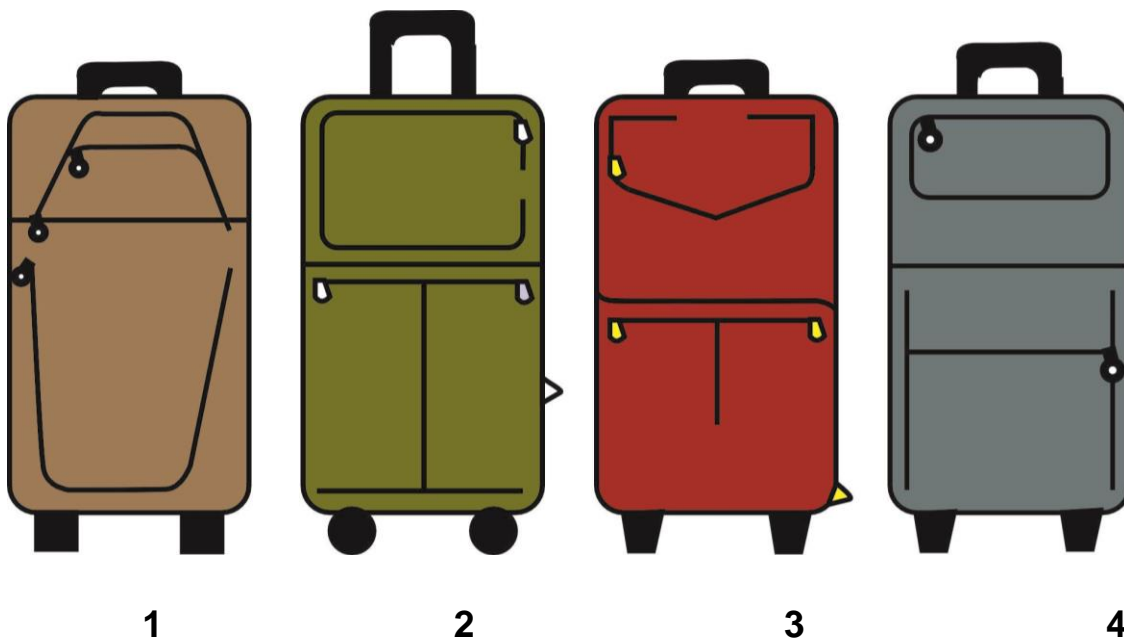
- a) Ascender
- b) Kerf

- c) Tint
- d) Weight

Q.15 Which of the following is not an Artificial intelligence (AI) application?

- a) Image recognition and facial detection in security systems
- b) Recommendation systems in online shopping
- c) Email spam filtering
- d) Automated traffic lighting systems

Q.16 These four pieces of luggage have lost their tags. Could you figure out to which airport each luggage would go? The airport codes are SVT, GOH, BAU, and ECI. Choose one of the options.



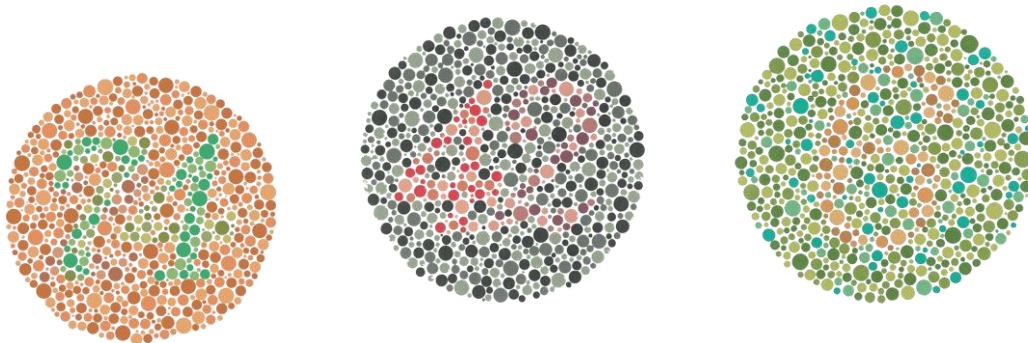
- a) 1-SVT, 2-GOH, 3-BAU, 4-ECI
- b) 1-GOH, 2-SVT, 3-ECI, 4-BAU
- c) 1-BAU, 2-ECI, 3-GOH, 4-SVT
- d) 1-BAU, 2-ECI, 3-SVT, 4-GOH

Q.17 What could this symbol used in food packaging mean?



- a) Keep Earth Green
- b) Compostable
- c) Protect Nature
- d) Grow Trees

Q.18 Please select the correct number sequence as you go looking at the clusters of coloured dots from left to right.



- a) 14, 48, 8
- b) 74, 47, 6
- c) 71, 42, 8
- d) 74, 42, 6

Q.19 Which of the following colours is the Pantone Colour of the Year for 2024?



a)



b)



c)



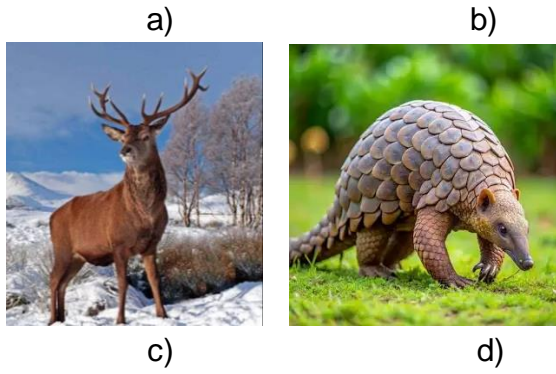
d)

Q. 20 What type of texture would an interior designer propose for the bathroom floor area to be used by the aged?

- a) Smooth
- b) Rough
- c) Soft
- d) Any texture that matches the walls

Q.21 Which of the following animals is not naturally found in India?



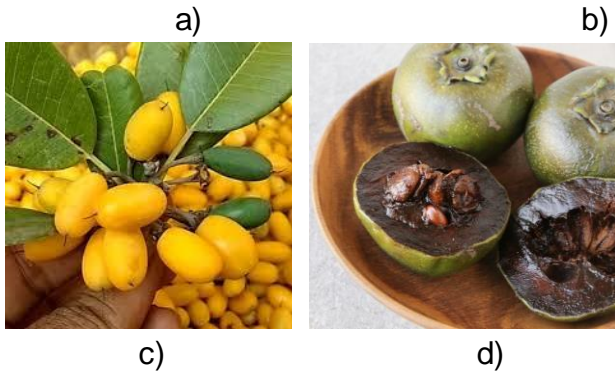


Q.22 Which of the following colour schemes is commonly associated with 'Warm' in interior design?

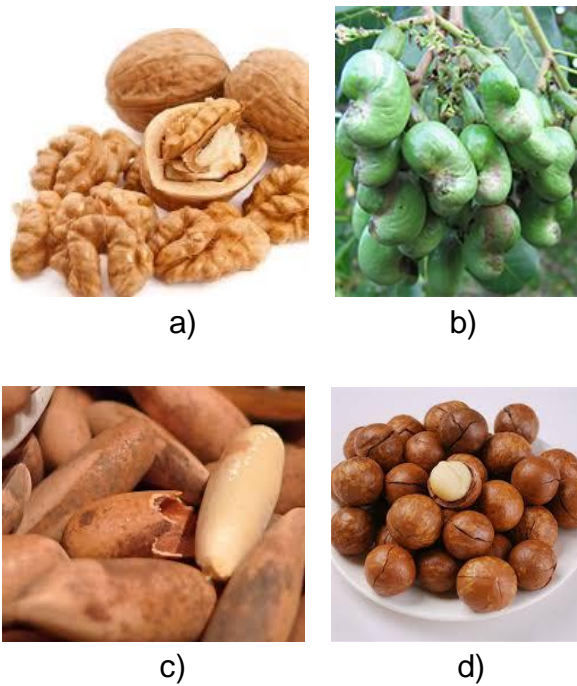


Q.23. Which of the following fruits is not native to India?





Q.24 Which of the following nuts/seeds does not normally grow in India?



Q.25 One change that you would be most effective to make your wristwatch completely useless.

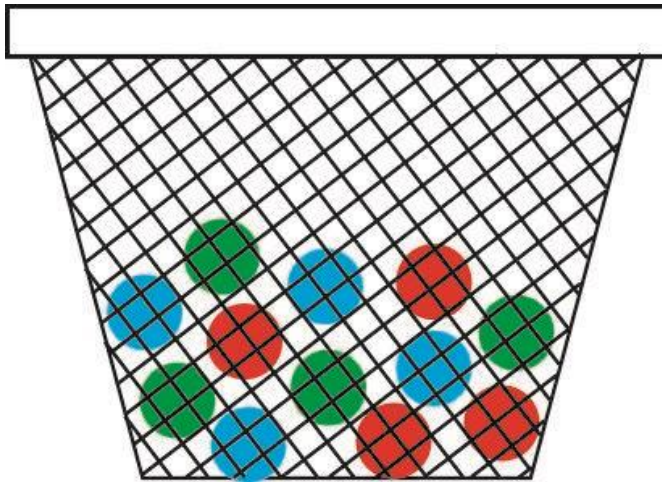
- a) Remove the Minute hand
- b) Remove the Second hand
- c) Remove the Hour hand
- d) Remove the strap

End of section A

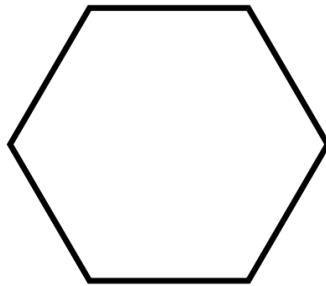
Section B - AINT

Section B (75 marks) contains a total of **15 'Answer Is Number Type (AINT)'** questions. For each question, the answer is a real number rounded off to 2 decimal places. No choices will be shown for these questions. Each correct answer will receive **5 marks**. Questions not attempted or answered wrongly will be given zero. Questions from 26 to 40 belong to this section.

- Q.26** A box contains 12 balls: 4 red, 4 blue, and 4 green.
If 3 balls are drawn randomly, what is the probability in percentage that at least 1 red ball is drawn?



Q.27 How many equilateral triangles of side 2 units are possible inside the regular hexagon of side 8 units?



Q.28 On a normal Scale, how many maximum divisions does ' **an inch** ' have?

Q.29 How many zeros are there in one Trillion?

Q.30. Five friends - Alex, Ben, Charlie, David, and Emily - are locked in a puzzle room. They have 60 minutes to escape. Each friend has a unique skill:

- Alex: unlocks 2 doors/minute
- Ben: unlocks 1 door/minute
- Charlie: finds hidden clues (2 clues/minute)
- David: disables alarms (1 alarm/minute)
- Emily: hacks electronic locks (3 locks/minute)

If there are 12 doors, 5 alarms, and 8 hidden clues, what is the minimum time (in minutes) required for the team to escape?

Q.31 Look carefully at both the lists of short stories and their authors. Count the number of differences between the lists.

List 1

The Necklace - Guy de Maupassant
The Gift of the Magi - O. Henry
The Last Leaf - O. Henry
Bartleby, The Scrivener - Herman Melville
The Fly - Katherine Mansfield
The Dead - James Joyce
The Yellow Wallpaper - Charlotte Gilman
The Monkey's Paw - W.W. Jacob
The Three Questions - Leo Tolstoy
The Overcoat - Nikolai Gogol
Meneseteung - Alice Munroe
The Postmaster - Rabindranath Tagore
The Happy Prince - Oscar Wilde
The Romance of a Busy Broker - O. Henry
The Interpreter of Maladies - Jhumpa Lahiri

List 2

The Necklace - Guy De Maupassant
The Gift of the Maggi - O. Henry
The Last Leaf - O. Henry
Bartleby, The Scribe - Herman Melville
The Fly - Katherine Mansfield
The Dead - James Joyse
The Yellow Wallpaper - Charlotte Gillman
The Monkey's Paw - W.W. Jacob
The Three Question - Leo Tolstoy
The Overcoat - Nikolai Gogoi
Menseteung - Alice Monroe
The Postmaster - Ravindranath Tagore
The Happy Prince - Oscar Wild
The Romance of a busy broker - O. Henri
The Interpreter of Malladies - Jhumpa Lahir

Q.32 An investment grows at a rate of 5% per annum. If 1000 is invested, how much will the investment gain after 10 years?

Q.33 Find the smallest positive integer that satisfies:

- divisible by 11
- leaves a remainder of 3 when divided by 17
- not divisible by 5

Q.34 Count no. of joints in the mannequin.



Q. 35 The numbers below are increasing according to a specific pattern. What number should come after 61?

1 → 5 → 13 → 29 → 61 → ?

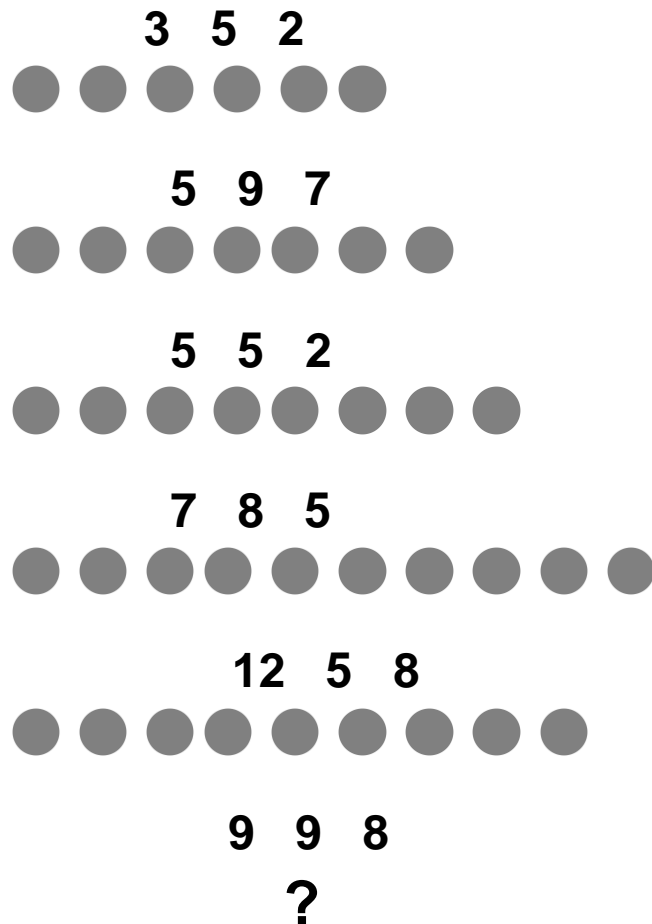
Q. 36 What is the next digit in this series?

2 5 7 6 1 3 4 1 7 9 2 6 8 3 ?

Q. 37 A cylindrical tank with a height of 10 meters and a diameter of 8 meters is filled with water. The water is then drained and filled with oil. If the density of oil is 0.9 g/cm^3 , what is the mass of (in kilograms) of the oil in the tank?

Data: Assume $\pi = 3.14$

Q.38 How many dots should go under the last set of numbers?



Q.39 The numbers at the end of each row and column result from adding the numbers represented by each colour in that row or column. Knowing this, determine the values of Red and Green and add them. What is the combined value?

				20
				20
				18
				23
				17
23	18	32	25	

Q.40 A working circular wall clock hanging in the drawing room is 20 cm in diameter. The pressure cooker in the kitchen blows its first whistle in 60 seconds and

the second whistle in 45 seconds. What is the area covered by the 'seconds' hand from the time the pressure cooker was put on the gas till the second whistle started?

Data: Please present the value only. The unit is not needed.

Assume $\pi = 3.14$

End of Section B

Section C - MSQ

Section C (75 marks) contains a total of **15 Multiple Select Questions (MSQ)**. Each question may have one or more than one correct choice(s) out of the given choices. A question is correctly answered if ALL the correct choices and NO wrong choices are selected for that question. There is NO NEGATIVE marking for this section. Each correct answer will receive **5 marks**. The questions not attempted or answered wrongly will be given zero marks. Questions from 41 to 55 belong to this section.

Q.41 Which of the following is/are not an Artificial intelligence (AI) application?

- a) Image recognition and facial detection in security systems
- b) Scripted Chatbots
- c) Robotics in automobile manufacturing
- d) Automated traffic lighting systems

Q.42 Which of the following is/are activity/activities where human intelligence excels over advanced AI applications?

- a) Personalized advertising and targeted marketing
- b) Medical diagnosis and imaging analysis in healthcare
- c) Critical Thinking
- d) Storytelling

Q.43 You are designing a website's login page. Which features would enhance the user experience?

- a) Autocomplete username and password
- b) Two-factor authentication
- c) Clear password visibility option
- d) Simple, minimalistic design
- e) Forgot password link

Q.44 You're designing a logo for a children's educational app. Which colour schemes are suitable?

- a) Bright and bold (orange, yellow)
- b) Pastel colours (light blue, pink)
- c) Neutral (white, grey)
- d) Dark and muted (navy blue, beige)
- e) Monochromatic

Q.45. You're designing a website for the aged. Which features would improve accessibility?

- a) Large font sizes and clear typography
- b) High contrast colour scheme
- c) Simple navigation and minimal scrolling
- d) Closed captions for videos
- e) Voice command functionality

Q.46 You're designing a flat-pack furniture piece. Which features would simplify assembly?

- a) Clear instructions and diagrams
- b) Minimal number of parts
- c) Simple, intuitive connections
- d) Color-coded components
- e) Tool-free assembly

Q. 47 You're designing a smart home thermostat. Which features would enhance usability?

- a) Intuitive touchscreen interface
- b) Voice control integration
- c) Simple, clear labelling
- d) Automatic temperature scheduling
- e) Remote access through a mobile app

Q. 48 You're designing a portable power bank. Which material/s is/are suitable for the housing?

- a) Polycarbonate
- b) Aluminum or stainless steel
- c) Silicone for grip
- d) Ceramics
- e) Waterproof coatings

Q. 49 You are given a project to design an identity program for an organization dealing with the building of high-quality mock-ups and prototypes.
Which of the following taglines would not resonate with the organization?

- a) We do it. Fast
- b) We build. Whatever.
- c) Tell us the difference
- d) Today. Tomorrow

Q.50 Which strategies promote community engagement in social design?

- a) Co-creation workshops
- b) Surveys and focus groups
- c) Social media campaigns
- d) Collaborative governance
- e) Participatory budgeting

Q. 51 Which parameters evaluate the 'social impact' of any meaningful change?

- a) Return on Investment
- b) Social Return on Investment

- c) Quality of Life
- d) Community engagement metrics
- e) Economic growth indicators

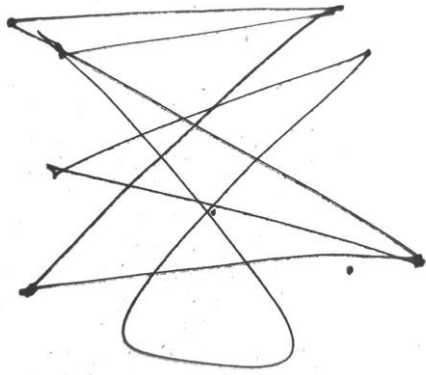
Q. 52 Which SDGs (Sustainable Development Goals) relate to social design?

- a) No Poverty
- b) Good Health and Well-being
- c) Reduced Inequalities
- d) Sustainable Cities and Communities
- e) Peace, Justice, and Strong Institutions

Q. 53 Which of the following is/are the task/s Artificial Intelligence is helping us in our daily lives?

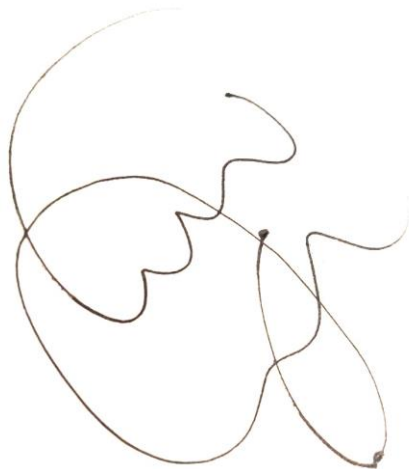
- a) Your physio helps you with the right exercises to tone your muscles
- b) You can switch on your water heater before reaching home.
- c) Netflix suggests you top crime thrillers because you just saw 'The Wire'.
- d) Myntra recommends garments close to what you normally buy.

Q.54 Which word/s will you associate with the image below?



- a) Vortraz
- b) Tekraz
- c) Kraknox
- d) Nimolu

Q.55 Which word/s will you associate with the image below?



- a) Oolixa
- b) Vultex
- c) Koolimbo
- d) Gloobu

End of the Question Paper for B.Des Program