

**M.Des. DAT Prelims**  
**Sample Test Paper**  
**Part-I**

**CDAT**

(Common Design Aptitude Test)

# PAPER 1

**Question Numbers 1 to 34 consist of 01 Mark each.**

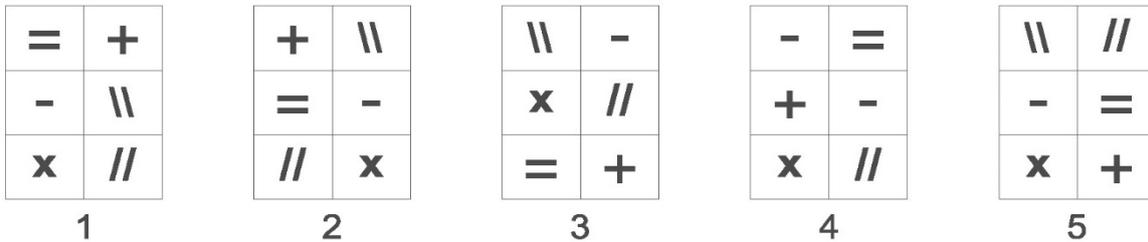
- Q1. Golden Ratio is a special number that approximately equals to which of the following?  
(A) 1:6.181 (B) 1:1.618  
(C) 11:6.81 (D) 1:61.81
- Q2. Which of the following is Rose gold made of?  
(A) Copper and Gold (B) Bronze and Gold  
(C) Copper and Bronze (D) Borax and Gold
- Q3. Which of the following tribes inhabit Andaman Island?  
(A) Garo and Khasi (B) Bodo and Karbi  
(C) Sentinelese and Jarawa (D) Bhil and Koli
- Q4. Which of the following is the largest organ in the human body?  
(A) Liver (B) Lungs  
(C) Skin (D) Brain
- Q5. Who is known as father of the Indian Space Program?  
(A) Avul Pakir Jainulabdeen Abdul Kalam (B) Homi Jehangir Bhabha  
(C) Vikram Ambalal Sarabhai (D) Satish Dhawan
- Q6. World's biggest river island is situated in which of the following rivers?  
(A) Amazon (B) Brahmaputra  
(C) Nile (D) Yellow
- Q7. Polycarbonate material is used in  
(A) Auto parts. (B) Safety helmets.  
(C) Bullet-proof glass. (D) All these
- Q8. What is the popular book 'The Discovery of India' about?  
(A) Cartography & Navigation (B) Science & Technology  
(C) Innovation & Research (D) History & Culture

- Q9. Which of the following has been associated with the famous dictum 'Form follows Function'?
- (A) Louis Kahn (B) Louis Sullivan  
(C) Christopher Alexander (D) Louis Philip

- Q10. During the year gone by, which of the following water bodies was blocked by a giant ship that got stuck in it?
- (A) The Panama canal (B) The Palk straits  
(C) The Suez canal (D) The Straits of Gibraltar

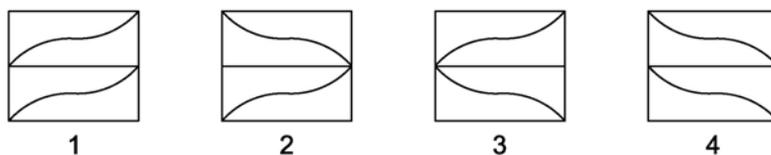
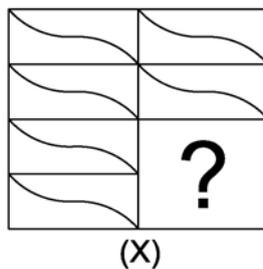
- Q11. One rabbit saw six elephants while going towards river. Every elephant saw two monkeys going towards the river. Every monkey holds one tortoise in its hands. How many animals are going towards the river?
- (A) 14 (B) 11  
(C) 12 (D) 5

Q12. Out of the given 5 images, find out the odd one.



- (A) 3 (B) 4  
(C) 2 (D) 5

Q13. Which of the following options will complete the given pattern?



- (A) 2 (B) 3  
(C) 4 (D) 1

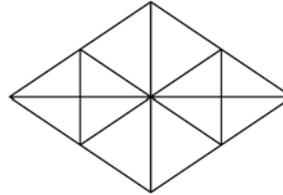
Q14. How many identical cubes will it require to make the structure shown in the image below?

- (A) 20
- (B) 10
- (C) 22
- (D) 12

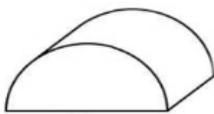


Q15. How many triangles are there in the below figure?

- (A) 12
- (B) 16
- (C) 28
- (D) 36



Q16. Objects are given below with their respective shadows. Identify the combination which is incorrect.



1



2



3

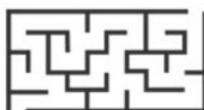
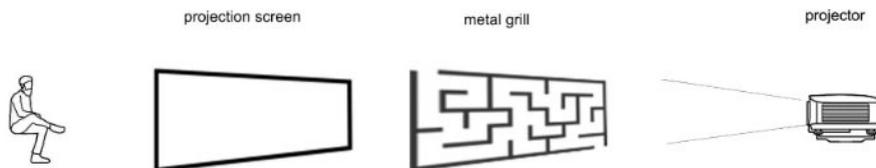


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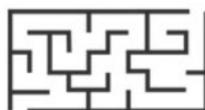
- (A) 1
- (C) 3

- (B) 2
- (D) 4

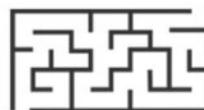
Q17. A projector is projecting light on a metal grill and the shadow of the grill is falling on a projection screen. A person is sitting on the other side of the grill looking at its shadow on the screen. Choose from the shadow options given below which shadow will be visible to him.



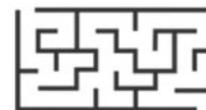
(A)



(B)



(C)



(D)

Q18. Among the given options, which figure can be formed by folding the Fig.01?

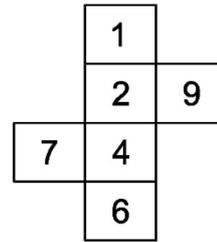
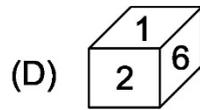
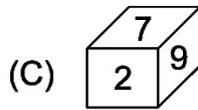
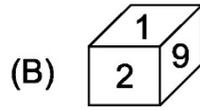
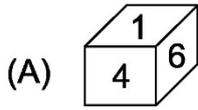


Fig. 01

Q19. If Country P is 50% larger than Country Q, then Q is how much % smaller than P?

(A) 50%

(B) 100%

(C) 33.33%

(D) 20%

Q20. Identify the right conclusion from the given statements.

(a) All stones are gems

(b) Some gems are diamonds

Therefore:

(i) Some diamonds are stones

(ii) All diamonds are stones

(A) Conclusion (i) is right

(B) Conclusion (ii) is right

(C) Both conclusions (i) & (ii) are right

(D) None of them is right

**Directions (Questions 21 to 22): Read the following paragraph to answer these questions.**

White and pure colors produce what are called tints – whitish colors, such as pink, lavender, peach. Such tints appear to have both pure color and are white in their make-up. When black and pure colors are combined, shades are produced, such as brown, olive, maroon. These, as well, appear to have both black and pure color in their composition. Black and white similarly produce gray, another unique and intermediate type of sensation. Finally, a combination of all three primaries—pure color, white, black—produces what is called a tone, such as tan. The tone, incidentally, becomes the most neutral of all color forms.

Q21. According to the author, the most neutral colors are:

(A) Hue

(B) Tint

(C) Tone

(D) Shade

Q22. According to the author, which of the following sets of colours are tints?

(A) Red, Blue and Yellow

(B) Peach, Pink and Green

(C) Pink, Lavender and Peach

(D) Lavender, Pink and Red

**Directions (Questions 23 to 27): Read the following paragraph to answer these questions.**

Source: Shrivastava, Aseem and Elango Rangasamy. "Regionalization and Localization of Economies". *Alternative Futures: India Unshackled*. Kothari, Ashish and K J Joy. New Delhi: Authors Upfront. 287-293. Print

The globalization of national economies over the past generation has led to a growing concentration of income, wealth and power. In a world where financial muscle has become rapidly more important, global economic power is now exercised by large, metropolitan world cities, where the world's money and capital markets are located.

Not only this. Production supply-chains now straddle the earth. Any cutting-edge industrial product, such as a smartphone, now involves inputs from dozens of far flung sites across the earth (involving mining, shipping, warehousing, processing, manufacture, packaging, stocking...)... Little wonder then, that "the shadows of consumption" fall right across the earth as well. In this way, the growing centralization of economic decisions has brought about far greater distances between places... The city lives virtually unmindful of the fact that it treats the countryside as a mere hinterland for resources and a dump for its industrial wastes.

...we first need to imagine a desirable world. The self-reliant village... has perhaps always been a myth. But a self-reliant region is certainly possible to conceive. The relationship between the city and the countryside would need to be radically renegotiated... Both resources and markets need to be located much closer to the point of actual production than is the norm in a globalized world. In a viable arrangement, such a group of villages would trade actively with each other to supply themselves with goods and services they do not produce themselves. It is entirely possible to imagine an ecological society which has cities and villages, both with industry and services, along with agriculture, fisheries, pastoralism and forest-work in the countryside. However, its technological basis is very different from the one dominant today. It relies on "ecologically sound technology", as the biologist Barry Commoner once put it... This technology is designed for small scale production, more for local and regional use and consumption, instead of for sale in distant markets.

- Q23. The reason cited for the spread of “shadows of consumption” across the world is:
- (A) Shipping of industrial products
  - (B) Production supply-chains beyond national boundaries
  - (C) Manufacture of cutting-edge products
  - (D) Processing of high-end industrial products
- Q24. Today, the concentration of world’s wealth is due to:
- (A) National production supply chains
  - (B) National economies being globalized
  - (C) National financial power concentration
  - (D) National wealth yielding power
- Q25. The “ecologically sound technology” is applicable to
- (A) Export markets and small-scale productions
  - (B) Regional markets and large-scale production
  - (C) Domestic markets and large-scale productions
  - (D) Regional markets and small-scale production
- Q26. The authors suggest redefined relationship of city and villages by:
- (A) Having decentralized economy
  - (B) Having self-reliant villages
  - (C) Having self-reliant region
  - (D) Having villages as hinterlands
- Q27. The proximity of resources and markets to sites of production will lead to:
- (A) Economically stable cities and villages
  - (B) Economically stable villages
  - (C) Economically and ecologically stable regions
  - (D) Economically stable regions

**Directions (Questions 28 to 32): Read the following paragraph to answer these questions.**

Source: Nelson, Harold G and Erik Stolterman. *The Design way- Intentional Change in an Unpredictable World*. London: The MIT Press, 2012. Print

Design is, by definition, a service experience. All design activities are animated through dynamic relationships between those being served - clients... customers, and consumers or end users - and those in service, including the designers. Design ideally is about service on behalf of the other - not merely about changing someone’s behaviour for their own good or convincing them to buy products and services. This is not always obvious when observing the behaviour of many of today’s designers: neither is it adequately dealt with in the contemporary writings on design. When the primary focus for design is on consumer or customer behaviour rather than client needs and desires it is less clear what

service relationship, if any, is in place. It is also unclear, in this case, what the path of accountability and responsibility is between the designer's decision and consequences in stakeholders' lives.

The presence of a binding service relationship in design contributes to a clear distinction between the tradition of design and the traditions of art or science. Science and art essentially are cultures of inquiry and action that are, in the best sense, self-serving. Scientists ideally are seen as motivated by their own curiosity and pursue their passions for knowing, in order to satisfy their curiosity objectively. Their gift is a subsequent knowledge that may be of use, somehow, at some point in human affairs. Artists, on the one hand, express their passions, feelings, understandings, and critique of the world out of their own need for self-expression. Their gift is that these insights are shared with audience who can then make what they will of these personal glimpses into the human condition. Designers, on the other hand, are not self-serving, but other-serving.

Being in service does not mean being a servant, or subservient. It does not mean acting as a mere facilitator on behalf of someone else's needs. Nor does service exclude self-expression. It just means that self-expression is not dominant in a design relationship, as it is in traditions of science and art.

The success of the design process can best be determined when those being served experience the surprise of self-recognition. This comes when that which emerges from a design process meets and exceeds the client's original expression of that which they (usually only dimly) perceived as desirable in the beginning. This original expression of what is desired is known as the client's desiderata. The designer's role is to midwife that desiderata which could not have been imagined fully from the beginning by either client or designer, and to provide end results in the form of an expected unexpected outcome.

Q28. The nature of Science, Art and Design has been articulated by the author as:

- (A) Other serving – Self-expression – Self-serving
- (B) Self-serving – Other serving – Self-expression
- (C) Self-expression – Self-serving – Other serving
- (D) Self-serving – Self-expression – Other serving

Q29. Design is primarily about:

- (A) Altering consumer behaviour
- (B) Changing customer services
- (C) Offering services
- (D) Convincing customers to buy

- Q30. The designer's "being in service" implies:
- (A) Other serving with no self-expression
  - (B) Being subservient with self-expression
  - (C) Offering scope for self-recognition
  - (D) Other serving and subservient
- Q31. The nature of client's desiderata is :
- (A) Clear to the client and the designer in the beginning
  - (B) Clear to the client but unclear to the designer in the beginning
  - (C) Unclear to the client but clear to the designer in the beginning
  - (D) Unclear to the client and unclear to the designer in the beginning
- Q32. The author is skeptical about the accountability of the designer when:
- (A) Designer works with idea of service
  - (B) Designer works towards clients' needs
  - (C) Designer focuses on altering consumer behaviour
  - (D) Designer works for a market

***Directions (Questions 33 to 34): Read the following paragraph to answer these questions.***

Your watch always tells you – and anyone else who sees it – considerably more than the time. It is impossible, in fact, to design a watch that tells only time. Even the most ordinary watch speaks volumes not only through the customary numbers, hands, and graphic symbols on its face but also by means of every visual aspect of its form-including its shape, color, and texture. In the same way that people embellish their words with a universally understood "body language" of gestures and postures, products also say much more than the words and numbers of their labels suggest.

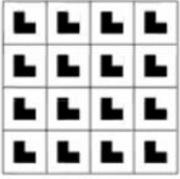
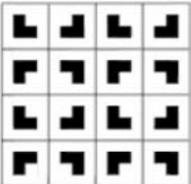
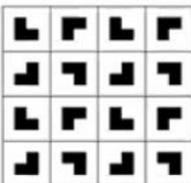
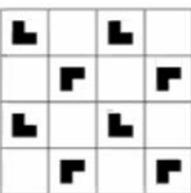
- Q33. According to the author besides telling the time, watches also convey which of the following about the wearer?
- (A) Aesthetic taste
  - (B) Style choice
  - (C) Aspirations
  - (D) All these
- Q34. Which of the following statements is correct?
- (A) The watch speaks colours.
  - (B) The watch says something about the user.
  - (C) Watches show only time.
  - (D) None of the above.

Question Numbers 35 to 37 consist of 02 Marks each.

Q35. F is the father of Q. F has only two children. Q is the brother of R. R is the daughter of P. K is the granddaughter of P. S is the father of K. How is S related to Q?

- (A) Brother (B) Son  
(C) Brother-in-law (D) Son-in-law

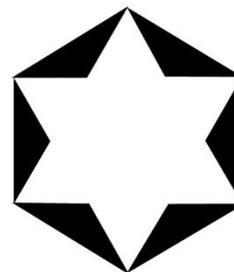
Q36. Analyse and Identify the type of symmetry and match the following.

<p>(P)</p> 	<p>(1) Translational Symmetry</p>
<p>(Q)</p> 	<p>(2) Rotational Symmetry</p>
<p>(R)</p> 	<p>(3) Mirror Symmetry</p>
<p>(S)</p> 	<p>(4) Grid reflection Symmetry</p>

- (A) P-1, Q-3, R-2, S-4 (B) P-3, Q-1, R-4, S-2  
(C) P-1, Q-4, R-3, S-2 (D) P-2, Q-4, R-1, S-3

Q37. Given is a shaded pattern of triangles embedded within a hexagon. Which of the following correctly identifies the relative proportion between the 'shaded part and the hexagon'?

- (A) 3:1  
(B) 1:1  
(C) 1:2  
(D) 2:3



## Space for Rough Work



## Space for Rough Work