



# Design Aptitude Test (DAT)- Part 2: Design Thinking\_ Mock Test

It is mandatory that you fill out your Name, Application No., Contact No., Aadhaar No. and Email ID.

There are SIX questions in this part, ALL of which are compulsory.

Questions 5 & 6 carry 10 marks each. All other questions are 5 marks each.

Make sure that you click the submit button before the form closes down automatically at the end of the time limit.

Full Name \*

Short answer text  
.....

Application No. \*

Short answer text  
.....

Contact No. (Mobile) \*

Short answer text  
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Short answer text

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Email ID \*

Short answer text

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Q1: Four options about problems in the situation shown below are enlisted. Select the correct option and explain what in the scene is indicative of the problem(s) in the chosen option.



Options:

(a)	Signage not accessible to passengers
(b)	Porters are not preferred by passengers
(c)	Luggage trolley cannot be used over steps
(d)	All the above

Long answer text

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Q2: Additive Manufacturing technology is revolutionizing the way design is carried out. From the

made by layered deposition of the material. Descriptions for valid options

Long answer text

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Q3: iPhone is an iconic smartphone. Explain, how the following factors might have potentially contributed to iPhone's success vis-a-vis their competitors: (a) It has a multi-point touch screen (b) It is manufactured and supplied through a distributed global network (c) It uses accelerometer for automatic rotation of display (d) It has only one button in front. Descriptions for valid options.

Long answer text

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Q4: Aluminum-Foam is a highly porous material made of aluminum with pore sizes up to 1.0 mm. In which of the following applications Aluminum-Foam CANNOT be used with significant benefit? Write one sentence each to describe the three valid options. (a) In water purifiers for Ultra-filtration of water (b) In automobiles for Energy Absorption in the event of a crash (accident) (c) In heat exchangers (d) In aerospace industry for design of light but strong structures. Descriptions for valid options

Long answer text

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Q5: Two slipper (Hawaii Chappal) alternatives are under consideration; one has (A) rubber sole with replaceable rubber strap and the other has (B) high density EVA-foam sole with non-replaceable leather strap. First compare five different aspects (comfort, environmental impact, durability, cost) of the two alternatives. Then take ALL five aspects into account to evaluate which one is BETTER

Long answer text

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Q6: Disposable plates used for serving hot and wet food is inexpensive but inconvenient as it transmits heat to the hand kept below and significantly deforms if it is held in one side. Non-disposable plates are convenient but expensive. Propose (brief written description) three novel

underlying principles for each of the proposed concepts.

Long answer text

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