

Design, Technology and Innovation

Week 1: Practice Questions

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1. What makes the Jaipur foot better than other imported prosthetic limbs? Check all correct answers.
 - (a) It is custom-made for each user.
 - (b) It is available for free.
 - (c) It can be used in all types of environments.
 - (d) All of the above
2. How did the Jaipur Foot benefactors address the disability of poverty in the users? Check all correct answers.
 - (a) By giving them the Jaipur foot for free.
 - (b) By giving them ways to restart their lives, like rickshaws, sewing machines etc.
 - (c) By giving them money.
 - (d) By giving them free training.
 - (e) None of the above.
3. Why was the design submitted by Abdul Kalam not used by BMVSS for the Jaipur Foot?
 - (a) It was not as easy to build.
 - (b) It was not as easy to use by the users.
 - (c) It was more expensive.
 - (d) It took more time to build.
 - (e) All of the above.
4. What were the disabilities in the handicapped in India, which were taken as design considerations for the Jaipur Foot, as identified by B. R. Mehta?

- (a) They were physically handicapped.
 - (b) They were very poor.
 - (c) They were illiterate.
 - (d) All of the above.
5. Why should the Jaipur Foot be considered as "high tech", if at all. Check all answers that apply.
- (a) It uses high tech materials.
 - (b) It uses wood with specific direction of the grains for a perfect fit of the screw.
 - (c) It uses technology from the tyre and automotive industries.
 - (d) Jaipur Foot can not be considered as "high tech."
6. What are the benefits of using micro-cellular rubber in the Jaipur Foot? Check all correct answers.
- (a) It is more easily moldable.
 - (b) It has good longevity.
 - (c) It provides good cushioning.
 - (d) All of the above.
7. What were the problems with the IS standards for motorcycle helmets, if any? Check all the answers that apply.
- (a) There was no problem with the standards.
 - (b) They were biased towards manufacturing and technology.
 - (c) They did not take user comfort into consideration.
 - (d) They were adapted from standards in European countries.
8. Which of the following criterion were included in the design brief for the motorcycle helmets? Check all the statements that apply.
- (a) It should look nice and colorful.
 - (b) It should be easy to carry and store.
 - (c) It should be comfortable to wear for the user.
 - (d) The user should be able to see clearly through the helmet.
 - (e) It should be such that it encourages the users to wear it.
 - (f) It should work well for everyone.