

BACHELOR OF VOCATION
Production-Tool and Die Manufacturing
Subject: Design, Technology & Innovations
(MOOC/Online Course-III)
Subject Code: OET-603
Semester: Fourth
September 2022
Theory (External): 70 Marks
Time: 03 Hours

Instructions to the Students

1. This Question paper consists of two Sections. All sections are compulsory.
2. Section A comprises 10 questions of objective type in nature. All questions are compulsory. Each question carries 2 marks.
3. Section B comprises 8 essay type questions out of which students need to do any 5. Each question carries 10 marks.
4. Read the questions carefully and write the answers in the answer sheets provided.
5. Do not write anything on the question paper.
6. Wherever necessary, the diagram drawn should be neat and properly labelled

Roll Number

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SECTION –A (SHORT/OBJECTIVE TYPE QUESTIONS)
(10x2=20 Marks)

Explain in brief the following:

- A. What are the advantages of the Jaipur foot which make it the best fit for Indian user?
- B. What do you understand by patient-specific prosthesis?
- C. How the shank is attached to the Jaipur foot?
- D. List different energy ladders according to the need of the people?
- E. What are various issues the solar lamp initially had?
- F. How did the problem of unique code in digitally personally jewelry is solved?
- G. According to pitfall innovation, what are the sequential steps, up to mass production?
- H. What was innovative about orthopaedic plaster splint?
- I. What is the full form of BETIC ?
- J. How did sickle innovation as a company managed to survive after the initially failed to empower the cotton pickers?

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SECTION –B (ESSAY TYPE QUESTIONS)
(5x10=50 Marks)

1. Explain the following features about Jaipur foot.
(2*10=20) Advantages of microcellular rubber, PVC shank, cosmetic silicone rubber.
2. Explain the benefits of centered helmet design.
3. Explain the functions of different parts used in the assembly of the Solar study lamp.
4. What is the purpose of the vent cleaning system in the tyre industry? Explain the project in detail.
5. Explain the Chakku 7C's of innovation by design i.e., the cause, the context, the comprehension, the check, the conception, the crafting, and the connection.
6. What does the term Grassroots refer to by Professor Anil Gupta in grassroots innovation? Explain it with examples.
7. Discuss any seven sustainable development goals (SDGs) in detail, out of 17 as given by the department of economic and social affairs United Nations.
8. What are the essential elements and importance of Task Classification.

END OF PAPER