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**B.Tech. DEGREE EXAMINATION, NOVEMBER 2022**  
Sixth/ Seventh Semester

**18ASO102T – CREATIVITY, INNOVATION AND NEW PRODUCT DEVELOPMENT**  
(For the candidates admitted from the academic year 2018-2019 to 2019-2020)

**Note:**

- (i) **Part - A** should be answered in OMR sheet within first 40 minutes and OMR sheet should be handed over to hall invigilator at the end of 40<sup>th</sup> minute.
- (ii) **Part - B** should be answered in answer booklet.

Time: 2½ Hours

Max. Marks: 75

**PART – A (25 × 1 = 25 Marks)**

Marks    BL    CO    PO

Answer ALL Questions

- |  |   |   |   |   |
|--|---|---|---|---|
| 1. Process innovation refers to  | 1 | 1 | 1 | 1 |
| (A) The development of a new service   |   |   |   |   |
| (B) The development of a new product   |   |   |   |   |
| (C) The implementation of a new or improved production method  |   |   |   |   |
| (D) The development of new products or services  |   |   |   |   |
| 2. Innovation can help to provide a temporary competitive advantage when   | 1 | 1 | 1 | 1 |
| (A) Barrier to entry are high  |   |   |   |   |
| (B) Barrier to imitation are low and intellectual property rights and difficult to enforce   |   |   |   |   |
| (C) There are few other competitors  |   |   |   |   |
| (D) Barriers to entry are low  |   |   |   |   |
| 3. Lateral thinking is _____ thinking  | 1 | 1 | 1 | 1 |
| (A) Logical  |   |   |   |   |
| (B) Creative   |   |   |   |   |
| (C) Simple   |   |   |   |   |
| (D) Both creative and simple   |   |   |   |   |
| 4. Intellectual property rights protects the use of information and ideas that are of  | 1 | 1 | 1 | 2 |
| (A) Ethical value  |   |   |   |   |
| (B) Social value   |   |   |   |   |
| (C) Moral value  |   |   |   |   |
| (D) Commercial value   |   |   |   |   |
| 5. Symbol of Maharaja of Air India is _____  | 1 | 1 | 1 | 2 |
| (A) Copy right   |   |   |   |   |
| (B) Trade mark   |   |   |   |   |
| (C) Patent   |   |   |   |   |
| (D) Royalty  |   |   |   |   |
| 6. How long do patents usually last for?   | 1 | 2 | 2 | 2 |
| (A) 10 years   |   |   |   |   |
| (B) 20 years   |   |   |   |   |
| (C) 40 years   |   |   |   |   |
| (D) 60 years   |   |   |   |   |
| 7. If a company develops a new technology that improves its main product, what type of intellectual property can they use to stop others from copying their invention? | 1 | 2 | 2 | 2 |
| (A) Copyright  |   |   |   |   |
| (B) Trade marks  |   |   |   |   |
| (C) Registered designs   |   |   |   |   |
| (D) Patents  |   |   |   |   |

8. TRIPS (Trade Related aspects of Intellectual Property Rights) agreement is administered by 1 1 2 2  
 (A) United Nations Conference on Trade and Development (UNCTAD) (B) United Nations Organisation (UNO)  
 (C) World Bank (D) World Trade Organisation (WTO)
9. Team creativity can be promoted in which of the following ways? 1 2 2 2  
 (A) Establishing a competitive environment to promote ideas (B) Establishing challenges for the team  
 (C) Evaluating ideas during the idea generating stage (D) Stressing deadlines to encourage intensity and focus
10. Breaking down a problem into its constituent parts during team discussion is which of the following steps in the standard Agenda. 1 1 2 2  
 (A) Criteria development (B) Identification of the problem  
 (C) Analyzing the problem (D) Evaluating problem solutions
11. Which of the following is not a way to establish team identity? 1 2 3 1  
 (A) Creating a team name (B) Creating a uniform style of dress  
 (C) Creating a group rituals (D) Creating competition among group members for prizes and awards given to the best team member
12. Group thinking is \_\_\_\_\_ 1 2 3 2  
 (A) A process where group members gather to decide issues (B) a process of group members stressing disagreement and skepticism  
 (C) a process of group members stressing cohesiveness and agreement instead of skepticism (D) a process of breaking rigid thinking by placing a problem in a different frame of reference and optimum decision making
13. Lateral thinking is a term created by \_\_\_\_\_ to describe a set of approaches designed to find new approaches to problems. 1 2 3 2  
 (A) Peter Drucker (B) Harry s Truman  
 (C) Bil Gates (D) Edward de Bano
14. One of the characteristic is not of conventional leader. 1 1 3 3  
 (A) Direct (B) Lead from alongside  
 (C) Think they know best (D) Give directions and orders
15. One of the following is not a characteristic of a conventional leader 1 3 3 1  
 (A) Lead from the front (B) Direct  
 (C) Give directions and orders (D) Ask questions, solicit suggestions delegate

16. What are the two ways that a company can obtain new products? 1 1 4 2  
 (A) Line extension and Brand Management (B) Internal development and brand Management  
 (C) New product development and acquisition (D) Service development
17. New product development starts with \_\_\_\_ 1 2 4 3  
 (A) Idea generation (B) Idea screening  
 (C) Concept development (D) Concept testing
18. Which of the following is perhaps the most important external source of new product ideas? 1 3 4 2  
 (A) Customers (B) Engineers  
 (C) Competitors (D) Trade Magazines, shows and seminars
19. The purpose of idea generation is to create a \_\_\_\_ number of ideas the purpose of succeeding stages is to \_\_\_\_ that number. 1 2 4 1  
 (A) Large number ; reduce (B) Limited number ; increase  
 (C) Small number ; reduce (D) Small number ; increase
20. Increasing profits will most likely occur at which stage of the PLC? 1 2 4 1  
 (A) Introduction (B) Maturity  
 (C) Growth (D) Decline
21. In value engineering 'worth' is value of 1 3 5 1  
 (A) Product (B) System  
 (C) Service (D) Function
22. The aim of the value engineering is to 1 2 5 3  
 (A) Minimize the overall cost of production without affecting the quality of product (B) Determine the value of overall production  
 (C) Relate values of a job (D) To increase MRP of the product.
23. Rights of patentee are infringed by supplying substance commercially in \_\_\_\_ 1 3 5 3  
 (A) Process patent (B) Product patent  
 (C) Commercial patent (D) National patent
24. A singer wishes to assign the rights to reproduce a video she has made of her concert. 1 2 5 3  
 (A) Copy rights (B) Trade Mark  
 (C) Patent (D) Industrial designs
25. An attractive idea must be developed into a \_\_\_\_ 1 2 5 2  
 (A) Product idea (B) Product concept  
 (C) Product image (D) Test Market

**PART – B (5 × 10 = 50 Marks)****Marks BL CO PO****Answer ALL Questions**

26. a.i. What are the Basic rules in Brain storming? 5 1 1 1

ii. How can you differentiate between creativity and Innovation? 5 1 1 1

**(OR)**

b. What are the various factors contributing to successful technological innovation? 10 1 1 2

27. a.i. Write down the various Tips for asking questions in an Innovative organization. 8 2 2 1

ii. What are the various characteristics of a lateral leader? List out at least 4 of them. 2 1 2 2

**(OR)**

b. What do you mean by increasing the yield? List out the various tips to increase the yield. 10 3 2 1

28. a. Write in detail on the various criteria and measures to be adopted in selection of a project. 10 1 3 1

**(OR)**

b. Explain the product Life cycle in detail with a suitable figure. 10 2 3 2

29. a. What is IPR? Clearly explain the Intellectual Property Rights (IPR) categories and types of IPR. 10 3 4 3

**(OR)**

b. What is a patent law? Explain the characteristics and some of the recent changes in patent law. 10 2 4 2

30. a. What are the fundamental principles of design of prototype? 10 2 5 1

**(OR)**

b.i. Write down at least six requirements of Design of Prototype. 5 2 5 2

ii. Explain the concept of Six sigma. 5 2 5 2

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