

B.TECH. Degree Examination, December 2020

Seventh Semester

BT16703-CREATIVITY, INNOVATION AND NEW PRODUCT DEVELOPMENT

(Regulation 2016)

Time: Three hours

Maximum : 80 Marks

Answer **ALL** questions**PART A - (8 X 2 = 16 marks)**

1. Following is/are resource to know the latest market trend.
 - A. Survey
 - B. Google trends
 - C. Interview with customer
 - D. All of above
2. Following is not a way to Become More Creative?
 - A. Mind mapping
 - B. Meditation
 - C. Brainstorming
 - D. 6 thinking hat
3. What is the desirable Fossil energy ratio for a process involving fuel production?
 - A. <1
 - B. >1
 - C. =1
 - D. 0
4. Following is not a criteria of patenting
 - A. Novel
 - B. Usefulness
 - C. Obviousness
 - D. Process or Product
5. Give an example of a prototype in biotechnological field.
6. What is the importance of creativity and innovation?
7. Give an example of environmental sustainability.
8. What is the difference between PCT and Indian patent?

PART B - (4 X16 = 64 marks)

09. (a) (i) Name few biotech companies that are successful due to technological innovation. (2)
- (ii) Explain three technological innovation of Biotech companies. (14)

(OR)

- (b) Mention Techniques to Generate Ideas/Solutions. List out their advantage and disadvantages. (16)

10. (a) How do you evaluate a project for Environmental sustainability and economic viability? (16)

(OR)

- (b) (i) Explain (12)

1. Carbon footprint & Water footprint
2. Profitability index & Technoeconomic assessment

- (ii) Which is best among following to know economic viability of a project? (4)

Why?

1. Average rate of return
2. Payback period

11. (a) (i) How do you draft claims in patent? (14)

- (ii) Optimization of a media results in higher production of a biomass. Can the optimized media be patented? (2)

(OR)

- (b) (i) Explain the forms to be submitted to file an Indian Patent. (12)

- (ii) Fees for following categories in Indian Patent vary: Natural persons, Small entity and Others. Explain each category. (4)

12. (a) (i) What is the importance of Quality management system. (4)

- (ii) Explain Six Sigma DMAIC Methodology. (12)

(OR)

- (b) Explain different types of prototype, each with suitable example in biotech field. (16)