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**B.Tech/ M.Tech (Integrated) DEGREE EXAMINATION, MAY 2023**  
First/ Second Semester

**21GNH101J – PHILOSOPHY OF ENGINEERING**  
(For the candidates admitted from the academic year 2022-2023)

**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** and **Part - C** should be answered in answer booklet.

Time: 3 Hours

Max. Marks: 75

**PART – A (20 × 1 = 20Marks)**

Answer **ALL** Questions

Marks BL CO PO

- |  |         |
|--|---------|
| 1. The earliest Civil Engineer is known by name<br>(A) Imhotep (B) Babylon<br>(C) Teotihulan (D) Saqqara   | 1 1 1 1 |
| 2. The term engine is derived from<br>(A) Greek (B) Latin<br>(C) English (D) Arabic  | 1 1 1 1 |
| 3. Modern ERA is between<br>(A) 1114 and 1200 (B) 1104 and 1200<br>(C) 1174 and 1200 (D) 1074 and 1200   | 1 1 1 1 |
| 4. The first steam engine was built in<br>(A) 1947 (B) 1698<br>(C) 1998 (D) 1647   | 1 1 1 1 |
| 5. _____ belongs to the major branch of metaphysics.<br>(A) Physiology (B) Biology<br>(C) Ontology (D) Sociology   | 1 1 2 1 |
| 6. _____ ontologies describes concepts depending both on a particular domain and task<br>(A) Reference (B) Application<br>(C) Theoretical (D) Metaphysical                   | 1 1 2 1 |
| 7. What happens in the first stage of product life cycle?<br>(A) Product development (B) Product growth<br>(C) Product maturity (D) Product decline                          | 1 1 2 1 |
| 8. When a product is in its decline stage of its product life cycle, the average selling price will be<br>(A) Higher (B) Average<br>(C) As decided by manufacturer (D) Lower | 1 1 2 1 |

9. \_\_\_\_\_ is the study of the natural world as it is 1    2    3    1  
 (A) Engineering (B) Social  
 (C) Technology (D) Science
10. Design as \_\_\_\_\_ is related to the conceptualization stages of making new products 1    1    3    1  
 (A) Activity (B) Planning  
 (C) Execution (D) Epistemology
11. Holland's theory describes \_\_\_\_\_ number of basic personality types. 1    2    3    1  
 (A) 2 (B) 4  
 (C) 6 (D) 8
12. \_\_\_\_\_ focus on ideas 1    2    3    1  
 (A) Creators (B) Helpers  
 (C) Thinkers (D) Doers
13. The \_\_\_\_\_ test your hypothesis by doing an experiment 1    1    4    1  
 (A) Scientific method (B) Addie model  
 (C) Holland code (D) Engineering method
14. \_\_\_\_\_ number of parts are involved in evaluation phase. 1    1    4    1  
 (A) 2 (B) 4  
 (C) 6 (D) 8
15. The final stage of engineering design process is 1    1    4    1  
 (A) Define problem (B) Research ideas  
 (C) Communicate results (D) Establish constraints
16. The prototype creation is involved in \_\_\_\_\_ phase of addie model. 1    1    4    1  
 (A) Evaluation phase (B) Implementation phase  
 (C) Development phase (D) Design phase
17. \_\_\_\_\_ is the most discussed aspect of sustainability. 1    2    5    1  
 (A) Environment (B) Economic  
 (C) Ethical (D) Equity
18. The American Association of Engineering Societies was established in 1    2    5    1  
 (A) 1997 (B) 1979  
 (C) 1897 (D) 1889
19. Development which meets the needs of current generations without compromising the ability of future generations to meet their needs 1    1    5    1  
 (A) Sustainability (B) Diversity  
 (C) Equity (D) Integrity
20. \_\_\_\_\_ are involved in planning and managing projects 1    2    5    1  
 (A) Actors (B) Teachers  
 (C) Doctors (D) Engineers

**PART – B ( $4 \times 10 = 40$  Marks)**

Answer **ANY FOUR** Questions

	Marks	BL	CO	PO
21. Explain briefly on non-motivated functions.	10	1	1	1
22. Explain reference ontology with regard to application ontology.	10	1	2	1
23. What are the four dimensions of engineering? Write short notes on these dimensions.	10	1	3	1
24. Differentiate between scientific method and engineering design.	10	1	2	1
25. What do you mean by CDIO engineers in industry? Explain in detail.	10	1	4	1
26. Mention the professional organizations available for engineers with a detailed note.	10	1	5	1

**PART – C ( $1 \times 15 = 15$  Marks)**

Answer **ANY ONE** Question

	Marks	BL	CO	PO
27. What do you mean by product life cycle? Explain its stages in detail.	15	1	2	1
28. Give detailed notes on RAISEC model.	15	1	2	1

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