



SRM Institute of Science and Technology, Vadapalani Campus, Chennai 600026  
 Faculty of Engineering and Technology  
 CYCLE TEST – 01 / JANUARY 2025

### 21GNH101J – Philosophy of Engineering

(For I yr / 02 sem B.Tech: CSE(E.Tech), ECE and Mechanical)

Date: 31.01.2025

Duration: 45 min.

Max.Marks: 25

#### COURSE OUTCOMES

#### PROGRAMME OUTCOMES

		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
		Engg knowledge	Problem analysis	Design and development	Analysis, design	Modern tool usage	Society & culture	Environment	Ethics	Individual & team work	Communication	Proj mgmt. & finance	Lifelong learning	PSO -1	PSO -2	PSO -3
CO-1	Analyze the relation between Arts, Mathematics, Science, Technology and Engineering and desired attributes of an engineer	1	-	-	3	-	1	-	1	3	3	-	3	-	-	-
CO-2	Build ontologies for systems engineering using concept/mind mapping techniques	3	-	-	3	3	-	-	-	3	3	-	3	-	-	-
CO-3	Analyze the knowledge base in engineering, distinctive features of engineering design and RIASEC model	3	-	-	3	-	-	-	-	3	3	-	3	-	-	-
CO-4	Illustrate the engineering design process for the given application, analyze the requirements of CDIO engineers	3	1	3	3	3	-	-	-	3	3	-	3	-	-	-
CO-5	Evaluate designs on their environmental and societal aspects and do organizational analysis on profession engineering organizations	3	3	3	3	-	3	3	3	3	3	-	3	-	-	-

#### Part – A(12 x 1 = 12 Marks)

Instructions: Answer All

Q. No.	Question	Marks	C O	B L	P O
1 C	Identify the language from which the word philosophy is derived a) English      b) Latin      c) Greek      d) Italian	1	1	1	1
2 a	The earliest civil engineer is known by name a) Imhotep      b) Djoser      c) Acropolis      d) Parthenon	1	1	1	1
3 D	The earliest roots of science can be traced to Ancient Egypt and Mesopotamia in around _____ a) 2000 to 1000 BCE b) 3000 to 1200 BCE c) 1500 to 1200 BCE d) 2000 to 1200 BCE	1	1	1	1
4 C	The word _____ can also be used to refer to a collection of techniques a) Science      b) Engineering c) Technology      d) Mathematics	1	1	2	1

5	STEM education was introduced to increase the competitiveness in Science and Technology in _____ a) Italy    b) France    c) German    d) United States	1	1	1	9
6	The primary intention of ITEA is to encourage educational curricula providing technological literacy to all _____ students. a) K-12    b) K-10    c) K-16    d) K-5	1	1	2	1
7	ITEA 2000 Standards consist of five major categories subdivided into _____ specific standards a) 20    b) 30    c) 10    d) 5	1	1	1	9
8	The expansion of ITEA is a) International Technology Education Association b) International Technical Education Association c) International Technology Education Awareness d) International Technology Education Alliance	1	1	1	1
9	The first steam engine was built in a) 1947    b) 1698    c) 1998    d) 1647	1	1	1	1
10	Engineering habits of mind were defined to incorporate "essential skills for citizens in the _____" a) 18 <sup>th</sup> century    b) 20 <sup>th</sup> century c) 22 <sup>nd</sup> century    d) 21 <sup>st</sup> century	1	1	1	1
11	Which is one of the non-motivated functions of art? a) Political commentary    b) Expression of Imagination c) Entertainment    d) Commercialism	1	1	2	1
12	Which is one of the desired attributes of an engineer? a) Continuous Learning b) Lack of communication skills c) Inability d) Individual Work	1	1	1	10

**Part – B(1 x 8 = 8 Marks)**  
**Answer ALL questions**

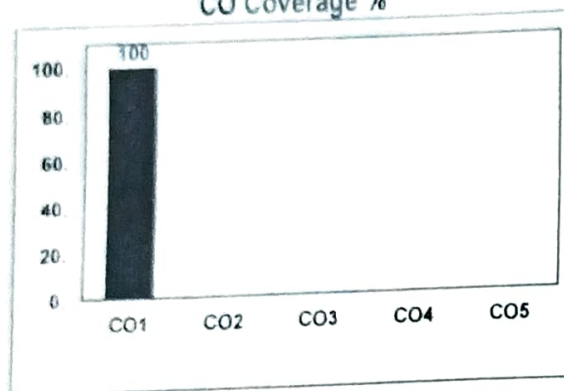
13.a	How do engineers use teamwork, continuous learning, creativity, problem-solving, communication skills, logical thinking, attention to detail and leadership to establish the success of complicated projects in a changing technological landscape?	8	1	2	9
<b>OR</b>					
13.b	Explain briefly on Non-Motivated functions of art.	8	1	2	10

**Part – C (1 x 5 = 5 Marks)**  
**Answer any ONE**

14	Explain in detail about the relationship between arts, mathematics, science, technology and engineering.	5	1	2	9
15	Elaborate the history of mobile phone development at different era.	5	1	2	10

**Course Outcome (CO) and Bloom's level (BL) Coverage in Questions**

**CO Coverage %**



**BL Coverage %**

