**SRM Institute of Science and Technology**

**College of Engineering and Technology**

**School of Computing**

**DEPARTMENT OF COMPUTING TECHNOLOGIES**

SRM Nagar, Kattankulathur – 603203, Chengalpattu District, Tamil Nadu

**Academic Year: 2024 - 2025 - Odd Semester**

**Test: CLAT 1**  **Batch 2 – Set C-Key**  **Date: 04.10.2024**

**Course Code & Title:** 21GNH101J Philosophy of Engineering  **Duration:** 50 minutes

**Year & Sem:** I Year & I Sem **Max. Marks:** 25 **Registration Number:**

| **Part - A**  **(5 \* 1 = 5 Marks)**  **Instructions: Answer all the Questions** | | | | | | | | | | | | | |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Q. No** | **Question** | | | **Marks** | | **BL** | | **CO** | | **PO** | | **PI Code** | |
| **1** | \_\_\_\_ **Engineering** \_\_\_\_\_\_\_\_the goal-oriented process of designing and making tools and systems to exploit natural phenomena for practical human | | | **1** | | **1** | | **1** | | **6** | | **6.4.1** | |
| **2** | In ABET, influential engineering accreditation board, adopted new set of standards for undergraduate engineering education during the year \_\_\_\_.  **a)1996** b) 1997 c) 1998 d)1999 | | | **1** | | **1** | | **1** | | **1** | | **1.6.1** | |
| **3** | Closed-loop cycle is a natural extension of  a) PLC b) PCM  c) PCL d**) PLM** | | | **1** | | **1** | | **1** | | **1** | | **1.6.1** | |
| **4** | The stage at which the distribution increases, demand increases and competition also increases.  a) Product Decline b) Product Maturity  c**) Product Growth** d) Product Development | | | **1** | | **1** | | **2** | | **4** | | **4.5.1** | |
| **5** | \_\_\_\_\_\_\_\_\_\_\_\_\_\_is the science of structure, order, and relation that has evolved from elemental practices of counting, measuring, and describing the shapes of objects.  a) Arts b) Science c) Technology d) **Mathematics** | | | **1** | | **1** | | **2** | | **4** | | **4.5.1** | |
| **Part - B**  **(2\* 10 = 20 Marks)**  **Instructions: Answer any TWO Questions** | | | | | | | | | | | | | |
| **Q. No** | | **Question** | **Marks** | | **BL** | | **CO** | | **PO** | | **PI Code** | | |
| **6** | | Demonstrate the relation between Arts, Mathematics, Science, Technology and Engineering  Basic human instinct for harmony, balance, rhythm. 2. Experience of the mysterious.  3. Expression of the imagination.  4. Ritualistic and symbolic functions.  Motivated functions  1. Communication.  2. Art as entertainment.  3. The Avant-Garde.  4. Art as a "free zone", removed from the action of the social censure.  5. Art for social inquiry, subversion or anarchy.  6. Art for social causes.  7. Art for psychological and healing purposes  8. Art for propaganda, or commercialism.  9. Art as a fitness indicator. | **10** | | **2** | | **1** | | **12** | | **12.4.1** | | |
| **7** | | What is ABET? List the outcomes of ABET engineering criteria EC2000.  Are post-EC2000 engineering graduates any better prepared to enter the profession than  were their pre-EC2000 counterparts of a decade ago? That question is at the heart of this  three-year study, titled Engineering Change: A Study of the Impact of EC2000.  In 1996, the ABET Board of Directors adopted the  new set of standards, called Engineering Criteria 2000  (EC2000). EC2000 shifted the basis for accreditation  from inputs, such as what is taught, to outputs —  what is learned. The new criteria specify 11 learning  outcomes and require programs to assess and demon-  strate their students’ achievement in each of those  areas. EC2000 retains earlier accreditation standards’  emphases on the development of students’ mathemati-  cal, scientific, and technical knowledge, as well as  standards for program faculty and facilities, but it also  emphasizes developing other professional skills, such  as solving unstructured problems, communicating  effectively, and working in teams. In addition, EC2000  stresses awareness of ethical and contextual considera-  tions in engineering.  In 2002, ABET, Inc., commissioned the Center for  the Study of Higher Education at Pennsylvania State  University to undertake a three-and-a-half-year study  to assess whether the implementation of the new  EC2000 evaluation criteria is having the intended  effects. Engineering Change: A Study of the Impact of  EC2000 was designed to answer two primary questions:  Engineering Change:  A Study of the Impact of EC2000Lisa R. Lattuca, Patrick T. Terenzini, J. Fredricks Volkwein  Center for the Study of Higher Education,  The Pennsylvania State University  Are post-EC2000 engineering graduates any better prepared to enter the profession than  were their pre-EC2000 counterparts of a decade ago? That question is at the heart of this  three-year study, titled Engineering Change: A Study of the Impact of EC2000.  In 1996, the ABET Board of Directors adopted the  new set of standards, called Engineering Criteria 2000  (EC2000). EC2000 shifted the basis for accreditation  from inputs, such as what is taught, to outputs —  what is learned. The new criteria specify 11 learning  outcomes and require programs to assess and demon-  strate their students’ achievement in each of those  areas. EC2000 retains earlier accreditation standards’  emphases on the development of students’ mathemati-  cal, scientific, and technical knowledge, as well as  standards for program faculty and facilities, but it also  emphasizes developing other professional skills, such  as solving unstructured problems, communicating  effectively, and working in teams. In addition, EC2000  stresses awareness of ethical and contextual considera-  tions in engineering.  In 2002, ABET, Inc., commissioned the Center for  the Study of Higher Education at Pennsylvania State  University to undertake a three-and-a-half-year study  to assess whether the implementation of the new  EC2000 evaluation criteria is having the intended  effects. Engineering Change: A Study of the Impact of  EC2000 was designed to answer two primary questions:  What impact, if any, has EC2000 had on stu-  dent learning outcomes in ABET-accredited  programs and institutions?  What impact, if any, has EC2000 had on orga-  nizational and educational policies and prac-  tices that may have led to improved student  learning outcomes? | **10** | | **2** | | **1** | | **12** | | **12.4.1** | | |
| **8** | | Define Ontology. Categorize and Compare different Ontologies stating their salient features and characteristics  Ontology is the branch of philosophy that studies concepts such as existence, being, becoming, and reality.   | **Reference Ontology** | **Application Ontology** | | --- | --- | | theoretical Focus on representing | theoretical Focus on representing | | establishes consensus about meaning of terms | offers terminological services for semantic access, checking constraints between terms | | maximal coverage | provides a minimal terminological structure | | Fits the needs of a large community | fits the needs of a specific community | | Fits the needs of a large community | lightweight ontologies | | Can’t be derived from application ontology | can be derived from Reference ontology | | broad and deep | broad and deep | | designed according to strict ontological principles | designed according to the viewpoint of an end-user in a particular domain | | **10** | | **2** | | **2** | | **12** | | **12.4.1** | | |

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

