# SAPTHAGIRI COLLEGE OF ENGINEERING

**(Affiliated to Visvesvaraya Technological University, Belagavi& Approved by AICTE, New Delhi.)**

NAAC Accrediated 'A' Grade Institute, NBA Accrediated ISO 9001-2015 &14001-2015 Certified

#14/5, Chikkasandra, Hesaraghatta Main Road, Bengaluru– **560 057.**

Web: www.sapthagiri.edu.in, Email: principal@sapthagiri.edu.in

Phone:080-28 372800/1/2    Fax: 080-28 372797

**SAPTHAGIRI**
College of Engineering
Creating Tomorrow

## Department of Computer Science & Engineering

To,

THE PRINCIPAL

Sapthagiri College of Engineering

Bangalore - 560057.

Through

IQAC COORDINATOR

Sapthagiri College of Engineering

Bangalore - 560057.

From,

Madhushree

Assistant Professor

Department of CS&E

Sapthagiri College of Engineering

Bangalore - 560057.

*Approved for ratification*

IQAC - Co-ordinator
Sapthagiri College of Engineering
Bengaluru - 560 057.

Respected Sir,

Subject: Requisition to conduct certification course on "SPRING AND HIBERNATE"for 7th Semester from 12/9/2022 to17/9/2022.

In the benefit of student welfare Department Computer Science and Engineeringis Conductingcertification course on "SPRING AND HIBERNATE" for 7th Semester from 12/9/2022 to17/9/2022. So I request you to kindly approve for the above.

Thanking you

Coordinator

Madhushree

Principal
Sapthagiri College of Engineering
Chikkasandra, Hesaraghatta Road
Bangalore- 560 057

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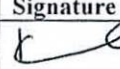Web: www.sapthagiri.edu.in, Email: principal@sapthagiri.edu.in

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## Department of Computer Science & Engineering

Date: 8-9-2022

## CIRCULAR

This is to inform that the following Academic Committee members are requested to attend the meeting on 9/9/2022 at 10.30AM in the HODs chamber to decide the syllabus and the lesson plan for the certification program on"SPRING AND HIBERNATE".

| Sl No. | Faculty Name | Designation | Signature |
|---|---|---|---|
| 1. | Dr. KAMALAKSHI NAGANNA | HOD | |
| 2. | Dr. PRAVEEN KUMAR K V | Professor | |
| 3. | Dr. LAVANYA N L | Associate  Professor | |
| 4. | Prof. MADHUSHREE | Assistant Professor | |

HOD

Principal
Sapthagiri College of Engineering
Chikkasandra, Hesaraghatta Road
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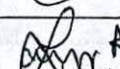Web: www.sapthagiri.edu.in, Email: principal@sapthagiri.edu.in
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## Department of Computer Science & Engineering

10-09-2022

# Minutes of Meeting

A meeting was conducted on 09/09/2022 in CSE HOD's Chamber to discuss and approve the syllabus & schedule of the 6 days Certification Course for VI semester CSE Students.

- **Course Title:** "SPRING AND HIBERNATE".
- **Resource Personnel:** Dr.Praveen Kumar K V, Prof. Madhushree , Prof. Anuradha B, Prof. Vanitha G P, Prof. Shobha K
- **Course Duration & Date:** 6 Days from 12/9/2022 to17/9/2022.

**Syllabus & Schedule of the certification program**

| DATES | SESSION 1 (9:00AM TO 1:00PM) | SESSION 2 (2:00PM TO 4:00PM) |
|---|---|---|
| 12/09/22 MONDAY | SPRING  OVERVIEW | SETUP DEVELOPMENT ENVIORNMENT |
| 13/09/22 TUESDAY | SPRING INVERSION OF CONTROL | SPRING        DEPENDENCY INJECTION |
| 14/09/22 WEDNESDAY | SPRING     BEAN     SCOPES     AND LIFECYCLE | INTRODUCTION             TO HIBERNATE |
| 15/09/22 THURSDAY | HIBERNATE            DEVELOPMENT ENVIORNMENT | HIBERNATE CONFIGURATION           AND ANNOTAION |
| 16/09/22 FRIDAY | HIBERNATE MAPPING ONE TO ONE | HIBERNATE   MAPPING   ONE TO MANY |
| 17/09/22 SATURDAY | QUIZ | |

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## Department of Computer Science & Engineering

The following members were present in the meeting and the syllabus and lesson plan for the certification program has been decided.

| Sl No. | Faculty Name | Designation | Signature |
|---|---|---|---|
| 1. | Dr. KAMALAKSHI NAGANNA | HOD | |
| 2. | Dr. PRAVEEN KUMAR K V | Professor | |
| 3. | Dr. LAVANYA N L | Associate Professor | |
| 4. | Prof. MADHUSHREE | Assistant Professor | |

**HOD**

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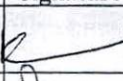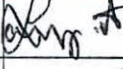NAAC Accrediated 'A' Grade Institute, NBA Accrediated  ISO 9001-2015 &14001-2015 Certified

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## Department of Computer Science & Engineering

# <u>CIRCULAR</u>

The department of Computer Science and Engineering is Conducting 6 days Certification Course on "SPRING AND HIBERNATE" for7<sup>th</sup> semester students from 12/9/2022 to17/9/2022.

Hereby informing all 7<sup>th</sup>semester students to attend the Certification Program Compulsorily.


Coordinator

HOD

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## Department of Computer Science & Engineering

### 6 days Certification Course on "SPRING AND HIBERNATE"

### TEST TIME TABLE

| SL.NO | DATE / DAY | TIMINGS |
|-------|------------|---------|
| 1 | 17/9/2022 Saturday | 9:00AM - 10:00AM |

Coordinator

HOD

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## Department of Computer Science & Engineering
STUDENTS ENROLLED IN 6 DAYS CERTIFICATION COURSE ON

## "SPRING AND HIBERNATE"

| Sl. No. | USN | STUDENTS NAME | SIGNATURE |
|---------|-----|---------------|-----------|
| 1 | 1SG17CS050 | MD WAJAHAT RAZA | |
| 2 | 1SG18CS019 | BHUVAN GOWDA B S | |
| 3 | 1SG18CS022 | DARSHAN S | |
| 4 | 1SG19CS001 | ABHAY SMARAN HALEMANE | |
| 5 | 1SG19CS002 | ABHIJITH YADAV L | |
| 6 | 1SG19CS003 | ABHILASH S | |
| 7 | 1SG19CS004 | ADHARSH BHANU SHARMA B | |
| 8 | 1SG19CS005 | AMAN KUMAR | |
| 9 | 1SG19CS006 | AMOGHA NATEKAR J | |
| 10 | 1SG19CS007 | ANISH BHAT | |
| 11 | 1SG19CS008 | ANJALI G S | |
| 12 | 1SG19CS009 | ANKUR KUMAR | |
| 13 | 1SG19CS010 | ANUBHAW ANAND | |
| 14 | 1SG19CS011 | ANURAG SINGH | |
| 15 | 1SG19CS012 | ANUSHA D V | |
| 16 | 1SG19CS013 | ARHAM SABA | |
| 17 | 1SG19CS014 | ASHISH SINGH | |
| 18 | 1SG19CS015 | BHANURANJAN S BELLAKKI | |
| 19 | 1SG19CS016 | BHAVYA VAISHNAVI | |

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## Department of Computer Science & Engineering

| 20 | 1SG19CS017 | BHUMIKA M | Bhumika.M |
|----|-----------|-----------|-----------|
| 21 | 1SG19CS018 | CHANDAN V M | |
| 22 | 1SG19CS019 | CHANDANA G | |
| 23 | 1SG19CS020 | CHANDRALA P DESHPANDE | |
| 24 | 1SG19CS021 | CHARAN S | |
| 25 | 1SG19CS022 | CHETHANA R KARIGER | |
| 26 | 1SG19CS023 | CHITHRA P | |
| 27 | 1SG19CS024 | DEEKSHITH B V | |
| 28 | 1SG19CS025 | DEEKSHITH G D | |
| 29 | 1SG19CS026 | DEEPAK RAJ | |
| 30 | 1SG19CS027 | DEEPTHI B S | |
| 31 | 1SG19CS028 | DHANYA M SHETTY | |
| 32 | 1SG19CS029 | DIKSHA BHARDWAJ | |
| 33 | 1SG19CS030 | ETUKULAPATI MEGHANA | |
| 34 | 1SG19CS031 | HARSHA H J | |
| 35 | 1SG19CS032 | HARSHINI GIRISH MITRA | |
| 36 | 1SG19CS033 | HARSHITHA S | |
| 37 | 1SG19CS034 | HARSHITHA S | |
| 38 | 1SG19CS035 | HARSHITHA V | |
| 39 | 1SG19CS036 | HITESH B S | |
| 40 | 1SG19CS037 | IIFA SHARIF | |
| 41 | 1SG19CS038 | JAYANTH N | |

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| 42 | 1SG19CS039 | JYOTHI B | |
|----|------------|----------|--|
| 43 | 1SG19CS040 | K G LAKSHMI NARAYAN | |
| 44 | 1SG19CS041 | K N BHAVYA | |
| 45 | 1SG19CS042 | KAJAL DAHIYA | |
| 46 | 1SG19CS043 | KAMINENI PRAVALIKA | |
| 47 | 1SG19CS044 | KARAN RAJ | |
| 48 | 1SG19CS045 | KARTHIK K | |
| 49 | 1SG19CS046 | KAVYA P | |
| 50 | 1SG19CS047 | KESHAV CHANDRA RAY | |
| 51 | 1SG19CS048 | KISHOR JAKKALI | |
| 52 | 1SG19CS049 | KOKILA N | |
| 53 | 1SG19CS050 | KSHITIJ KUMAR | |
| 54 | 1SG19CS051 | KUMAR SWAPNIL | |
| 55 | 1SG19CS052 | LAVANYA C | |
| 56 | 1SG19CS053 | LIKITH GOWDA A P | |
| 57 | 1SG19CS054 | LIKITH KRISHNA S G | |
| 58 | 1SG19CS055 | MANAS MISHRA | |
| 59 | 1SG19CS056 | MANASA R | |
| 60 | 1SG19CS057 | MANDHARA B G | |
| 61 | 1SG19CS058 | MANJESH B N | |
| 62 | 1SG19CS059 | MANJUNATH BHARADWAJ V | |
| 63 | 1SG19CS060 | MAYANK RAJ | |

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| 64 | 1SG19CS061 | MEGHA ARUN TALEKAR | |
|----|-----------|--------------------|---|
| 65 | 1SG19CS062 | MONISH KUMAR P | |
| 66 | 1SG19CS063 | MONISH V | |
| 67 | 1SG20CS400 | AMULYA S K | |
| 68 | 1SG20CS401D IP | ANNAPURNA KINI | |
| 69 | 1SG20CS402 | ANUSHA M L | |
| 70 | 1SG20CS403 | BHARATH G | |
| 71 | 1SG18CS071 | PRAJWAL P | |
| 72 | 1SG18CS058 | MDDE GOWDA VINAY | |
| 73 | 1SG19CS064 | MUSKAN | |
| 74 | 1SG19CS065 | N VENUMAADHAV | |
| 75 | 1SG19CS066 | NAVDEEP TANWAR | |
| 76 | 1SG19CS068 | NAYANIKA SUR | |
| 77 | 1SG19CS069 | NEETU VIJAYANANDA | |
| 78 | 1SG19CS070 | NIDHI N SATTIGERI | |
| 79 | 1SG19CS071 | NISARGA R K | |
| 80 | 1SG19CS072 | PADMINI SHARMA | |
| 81 | 1SG19CS073 | POOJA N M | |
| 82 | 1SG19CS074 | POOJITHA G | |
| 83 | 1SG19CS075 | PRABHAKAR          BHIMANNA | |
| 84 | 1SG19CS076 | PRAMOD | |
| 85 | 1SG19CS077 | PRANEET V K | |

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| 86 | 1SG19CS078 | PRANSHU PRIYAM | |
| 87 | 1SG19CS080 | PRIYESH RAJ | |
| 88 | 1SG19CS081 | RAHUL KUMAR | |
| 89 | 1SG19CS082 | RAJAT YADAV | |
| 90 | 1SG19CS083 | RAKSHITH BS | |
| 91 | 1SG19CS084 | RAKSHITH          K | |
| 92 | 1SG19CS085 | RITHVIK PRASHANTH | |
| 93 | 1SG19CS086 | ROHITH S | |
| 94 | 1SG19CS087 | SAHANA GAJANAN NAIK | |
| 95 | 1SG19CS088 | SAHITYA MODI | |
| 96 | 1SG19CS089 | SAMBRAM SHETTY | |
| 97 | 1SG19CS090 | SANCHANA HT | |
| 98 | 1SG19CS091 | SANCHITHA K | |
| 99 | 1SG19CS092 | SANDHYA S | |
| 100 | 1SG19CS093 | SANJANA PATIL | |
| 101 | 1SG19CS094 | SANTHOSH K | |
| 102 | 1SG19CS095 | SHEJAL SINGH | |
| 103 | 1SG19CS096 | SHEKHAR | |
| 104 | 1SG19CS097 | SHIV PRASAD | |
| 105 | 1SG19CS098 | SHIVANI KUMARI | |
| 106 | 1SG19CS099 | SHOURYA RANJAN | |
| 107 | 1SG19CS100 | SHREYASI PATRA | |

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| 108 | 1SG19CS101 | SHUBHAM RAJ | |
| 109 | 1SG19CS102 | SMITHA B VENUGOPAL | |
| 110 | 1SG19CS103 | SNEHA N | |
| 111 | 1SG19CS104 | SOUMYA | |
| 112 | 1SG19CS105 | SRIRAM MISHRA H K | |
| 113 | 1SG19CS106 | SRISHANAG C S | |
| 114 | 1SG19CS107 | SRISHTI SUMAN | |
| 115 | 1SG19CS108 | SRUSHTI K S | |
| 116 | 1SG19CS109 | SUBHANSHU JHA | |
| 117 | 1SG19CS110 | SUNIL A | |
| 118 | 1SG19CS111 | SURAKSHA M S | |
| 119 | 1SG19CS112 | SUSHIL KUMAR G N | |
| 120 | 1SG19CS113 | SUVIDHA MANJUNATH NAIK | |
| 121 | 1SG19CS114 | THEJASHREE B P | |
| 122 | 1SG19CS115 | THEJASHREE P | |
| 123 | 1SG19CS116 | UMESH R G | |
| 124 | 1SG19CS117 | VAISHNAVI VIJAY KULKARNI | |
| 125 | 1SG19CS118 | VANSHAJ RAJ | |
| 126 | 1SG19CS119 | VARUN S RAJU | |
| 127 | 1SG19CS120 | VIDHYAKRISHNA | |
| 128 | 1SG19CS121 | VIDYASHREE S | |
| 129 | 1SG19CS122 | VINUTHA D S | |

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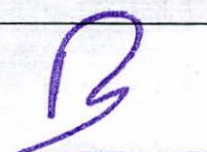NAAC Accrediated 'A' Grade Institute, NBA Accrediated ISO 9001-2015 &14001-2015 Certified
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| 130 | 1SG19CS123 | VISHAL R | |
|-----|------------|----------|---|
| 131 | 1SG19CS124 | YASHASWINI N | |
| 132 | 1SG19CS125 | YASHRAJ GUPTA | |
| 133 | 1SG19CS126 | SAJAD AHMAD RATHER | |
| 134 | 1SG20CS406 | HARSHITHA M H | |
| 135 | 1SG20CS407 | LOHITH K | |
| 136 | 1SG20CS408D ID | NANDINI N | |
| 137 | 1SG20CS409 | PRASHANTH B S | |
| 138 | 1SG20CS410 | PREETHAM P | |
| 139 | 1SG20CS411 | SUCHITH K | |

Madhushru
**Co-ordinator**

K
**HOD**

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## Department of Computer Science & Engineering

### 6 DAYS CERTIFICATION COURSE ON "SPRING AND HIBERNATE"

### ATTENDANCE

| Sl. No. | USN | STUDENTS NAME | 12/9/22 MS | AS | 13/9/22 MS | AS | 14/9/22 MS | AS | 15/9/22 MS | AS | 16/9/22 MS | AS | 17/9/2022 TEST |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 1SG17CS050 | MD          WAJAHAT | P | P | P | A | P | P | P | P | A | P | P |
| 2 | 1SG18CS019 | BHUVAN GOWDA B | P | P | P | P | P | P | P | P | P | P | P |
| 3 | 1SG18CS022 | DARSHAN S | P | P | A | P | P | A | P | P | P | P | P |
| 4 | 1SG19CS001 | ABHAY     SMARAN | P | P | P | P | A | P | P | P | P | P | P |
| 5 | 1SG19CS002 | ABHIJITH YADAV L | P | P | A | P | P | P | P | A | P | P | P |
| 6 | 1SG19CS003 | ABHILASH S | A | P | P | P | A | P | P | P | P | P | P |
| 7 | 1SG19CS004 | ADHARSH     BHANU | P | P | P | P | P | P | P | P | P | A | P |
| 8 | 1SG19CS005 | AMAN KUMAR | P | P | A | P | P | P | P | A | P | P | P |
| 9 | 1SG19CS006 | AMOGHA NATEKAR | P | P | P | A | P | P | P | P | P | P | P |
| 10 | 1SG19CS007 | ANISH BHAT | P | A | P | P | P | P | P | P | A | P | P |
| 11 | 1SG19CS008 | ANJALI G S | P | P | P | P | P | A | P | P | P | P | P |
| 12 | 1SG19CS009 | ANKUR KUMAR | P | P | P | P | P | P | A | P | P | P | P |
| 13 | 1SG19CS010 | ANUBHAW ANAND | P | P | P | P | P | P | P | P | P | P | P |
| 14 | 1SG19CS011 | ANURAG SINGH | P | A | P | P | P | P | P | P | P | P | P |
| 15 | 1SG19CS012 | ANUSHA D V | P | P | P | P | A | P | P | P | P | P | P |
| 16 | 1SG19CS013 | ARHAM SABA | P | P | P | P | P | P | A | P | P | P | P |
| 17 | 1SG19CS014 | ASHISH SINGH | P | P | P | A | P | P | P | P | A | P | P |

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| 18 | 1SG19CS015 | BHANURANJAN        S | P | P | P | P | P | P | P | P | P | P |
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| 19 | 1SG19CS016 | BHAVYA | P | A | P | P | P | A | P | P | P | P |
| 20 | 1SG19CS017 | BHUMIKA M | P | P | P | P | P | P | P | P | P | P | P |
| 21 | 1SG19CS018 | CHANDAN V M | P | P | P | P | P | P | P | P | P | P |
| 22 | 1SG19CS019 | CHANDANA G | P | P | P | P | P | P | P | P | P | P |
| 23 | 1SG19CS020 | CHANDRALA        P | P | P | P | P | P | P | P | P | P | P |
| 24 | 1SG19CS021 | CHARAN S | P | P | A | A | P | P | P | P | P | P | P |
| 25 | 1SG19CS022 | CHETHANA        R | P | P | P | P | P | P | P | P | P | P |
| 26 | 1SG19CS023 | CHITHRA P | P | P | P | P | P | P | P | P | P | P |
| 27 | 1SG19CS024 | DEEKSHITH B V | P | A | P | A | P | P | P | P | P | P | P |
| 28 | 1SG19CS025 | DEEKSHITH G D | P | P | P | P | P | P | P | A | P | P |
| 29 | 1SG19CS026 | DEEPAK RAJ | P | P | P | P | P | P | P | P | P | P |
| 30 | 1SG19CS027 | DEEPTHI B S | P | P | P | P | P | P | P | P | P | P |
| 31 | 1SG19CS028 | DHANYA M SHETTY | P | P | P | P | P | P | P | A | P | P | P |
| 32 | 1SG19CS029 | DIKSHA BHARDWAJ | P | P | P | P | A | P | P | P | P | P |
| 33 | 1SG19CS030 | ETUKULAPATI | P | P | P | P | P | P | P | A | P | P |
| 34 | 1SG19CS031 | HARSHA H J | P | P | A | P | P | P | P | P | P | P |
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| 36 | 1SG19CS033 | HARSHITHA S | P | P | P | A | P | P | P | P | P | P |
| 37 | 1SG19CS034 | HARSHITHA S | P | P | P | P | A | P | P | P | P | P |
| 38 | 1SG19CS035 | HARSHITHA V | P | P | P | P | P | P | A | P | P | P |
| 39 | 1SG19CS036 | HITESH B S | P | P | P | P | P | P | P | P | P | P |

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| 41 | 1SG19CS038 | JAYANTH N | P | P | P | P | P | P | P | P | P | P |
| 42 | 1SG19CS039 | JYOTHI B | P | P | A | P | P | P | P | P | P | P |
| 43 | 1SG19CS040 | K  G  LAKSHMI | P | P | P | P | A | P | P | P | P | P |
| 44 | 1SG19CS041 | K N BHAVYA | P | P | P | P | P | P | A | P | P | P |
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| 46 | 1SG19CS043 | KAMINENI | P | P | P | P | P | P | A | P | P | P |
| 47 | 1SG19CS044 | KARAN RAJ | P | P | P | P | P | A | P | P | P | P |
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| 57 | 1SG19CS054 | LIKITH  KRISHNA  S | P | P | P | P | P | P | P | P | P | P |
| 58 | 1SG19CS055 | MANAS MISHRA | P | P | P | A | P | P | P | P | P | P |
| 59 | 1SG19CS056 | MANASA R | P | P | P | P | P | P | P | P | P | P |
| 60 | 1SG19CS057 | MANDHARA B G | P | P | P | P | P | P | P | P | P | P |
| 61 | 1SG19CS058 | MANJESH B N | P | P | P | P | P | P | P | P | P | P |

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| 63 | 1SG19CS060 | MAYANK RAJ | P | P | A | P | P | P | P | P | P | P |
| 64 | 1SG19CS061 | MEGHA        ARUN | P | P | P | P | P | P | P | P | P | P |
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| 76 | 1SG19CS068 | NAYANIKA SUR | P | P | P | P | P | A | P | P | P | P |
| 77 | 1SG19CS069 | NEETU | A | P | P | P | P | P | A | P | P | P |
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| 86 | 1SG19CS078 | PRANSHU PRIYAM | P | P | P | P | P | P | P | P | P | P | P |
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| 91 | 1SG19CS084 | RAKSHITH K | P | P | P | P | P | P | P | P | P | P | P |
| 92 | 1SG19CS085 | RITHVIK | P | P | P | A | P | P | P | P | P | P | P |
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| 94 | 1SG19CS087 | SAHANA  GAJANAN | P | P | P | P | P | P | P | P | A | P | P |
| 95 | 1SG19CS088 | SAHITYA MODI | P | P | A | P | P | P | P | P | P | P | P |
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| 99 | 1SG19CS092 | SANDHYA S | P | P | P | P | P | P | P | P | P | P | P |
| 100 | 1SG19CS093 | SANJANA PATIL | P | P | A | P | P | P | P | P | P | P | P |
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| 103 | 1SG19CS096 | SHEKHAR | P | P | A | P | P | P | P | P | P | P | P |
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| 107 | 1SG19CS100 | SHREYASI PATRA | P | P | P | P | P | P | P | P | P | P |
| 108 | 1SG19CS101 | SHUBHAM RAJ | P | P | A | P | P | P | P | P | P | P |
| 109 | 1SG19CS102 | SMITHA          B | A | P | P | P | P | P | P | P | P | P |
| 110 | 1SG19CS103 | SNEHA N | P | P | P | P | P | P | A | P | P | P |
| 111 | 1SG19CS104 | SOUMYA | P | P | P | P | P | P | P | P | P | P |
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| 113 | 1SG19CS106 | SRISHANAG C S | P | P | P | P | P | A | P | P | P | P |
| 114 | 1SG19CS107 | SRISHTI SUMAN | P | A | P | P | P | P | P | P | P | P |
| 115 | 1SG19CS108 | SRUSHTI K S | P | P | P | P | P | A | P | P | P | P |
| 116 | 1SG19CS109 | SUBHANSHU JHA | P | P | P | P | P | P | P | P | P | P |
| 117 | 1SG19CS110 | SUNIL A | P | P | A | P | P | P | P | P | P | P |
| 118 | 1SG19CS111 | SURAKSHA M S | P | P | P | P | P | P | P | P | P | P |
| 119 | 1SG19CS112 | SUSHIL KUMAR G N | P | P | P | P | A | P | P | P | P | P |
| 120 | 1SG19CS113 | SUVIDHA | P | P | P | P | P | P | P | P | A | P |
| 121 | 1SG19CS114 | THEJASHREE B P | P | P | A | P | P | P | P | P | P | P |
| 122 | 1SG19CS115 | THEJASHREE P | P | P | P | P | P | P | P | P | P | P |
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| 124 | 1SG19CS117 | VAISHNAVI   VIJAY | P | P | P | P | P | P | P | A | P | P |
| 125 | 1SG19CS118 | VANSHAJ RAJ | P | P | P | P | P | P | P | P | P | P |
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| 129 | 1SG19CS122 | VINUTHA D S | P | P | P | P | P | P | P | A | P | P | P |
| 130 | 1SG19CS123 | VISHAL R | P | P | P | P | P | P | P | P | P | P | P |
| 131 | 1SG19CS124 | YASHASWINI N | P | P | A | P | P | P | P | P | P | P | P |
| 132 | 1SG19CS125 | YASHRAJ GUPTA | P | P | P | P | P | P | P | P | P | P | P |
| 133 | 1SG19CS126 | SAJAD    AHMAD | P | A | P | P | P | P | P | P | P | P | P |
| 134 | 1SG20CS406 | HARSHITHA M H | P | P | P | P | P | P | P | P | P | P | P |
| 135 | 1SG20CS407 | LOHITH K | P | P | P | P | P | P | P | P | P | P | P |
| 136 | 1SG20CS408 DIP | NANDINI N | P | P | A | P | P | P | P | A | P | P | P |
| 137 | 1SG20CS409 | PRASHANTH B S | P | P | P | P | P | P | P | P | P | P | P |
| 138 | 1SG20CS410 | PREETHAM P | P | P | P | P | A | P | P | P | P | P | P |
| 139 | 1SG20CS411 | SUCHITH K | P | P | P | P | P | P | P | P | P | P | P |

Madhushree
Co-ordinator

HOD

Principal
Sapthagiri College of Engineering
Chikkasandra, Hesaraghatta Road
Bangalore- 560 057

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## Department of Computer Science & Engineering
5 DAYS CERTIFICATION COURSE ON "SPRING AND HIBERNATE"

# QUESTION PAPER

**Q1.** Robert is working on a web application where Spring is being used. He wants to apply prototype scope in the bean named as 'Person'. Which one of the following is the correct option where the 'Person' bean works within the prototype scope :

(A) <bean id="person" class="com.test.Person" scope="Prototype"/>

(B) <bean id="person" class="com.test.Person" scope="prototype"/>

(C) <bean id="person" class="com.test.Person" PrototypeScope="true"/>

(D) <bean id="person" class="com.test.Person" Scope="prototype"/>

**Q2.** Spring framework offers us multiple ways to define the scope of a bean. Which one of the following is not the correct way of defining a 'request' scope?

(A) @RequestScope
public class Product {
    // some properties & methods
}

(B) <bean id="product" class="com.test.Product" Scope="request"/>

(C) @Scope("request")
public class Product {
    // some properties & methods
}

(D) <bean id="product" class="com.test.Product" scope="request"/>

**Q3.** Select the option that is not a correct approach to create bean life cycle methods in Spring framework?

(A) By using Annotations

(B) By implementing Interfaces provided by Spring framework

(C) By extending classes provided by Spring framework

(D) By using XML configuration

**Q4.** Which interface out of the following options will you use to perform destruction of beans in the context of the life cycle methods?

(A) InitializingBean

(B) PostConstruct

(C) DisposableBean

(D) PreDestroy

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**Q5.** Who is capable of maintaining a registry of different beans and their dependencies in a Spring based web application?

(A) BeanFactory class

(B) BeanFactory interface

(C) beanFactory method

(D) Client Application

**Q6.** Select the incorrect statement about BeanFactory in Spring Framework?
(A) BeanFactory holds bean definitions

(B) BeanFactory instantiates beans whenever asked by the client application

(C) BeanFactory is capable of creating associations between dependent objects while instantiating them

(D) BeanFactory supports the Annotation-based dependency Injection

**Q7.** Four annotations given below, are used in Spring Boot based application. Which one is the annotation of Spring Boot that is an alternative to Spring's standard @Configuration annotation?
(A) @EnableAutoConfiguration

(B) @SpringBootConfiguration

(C) @ConfigurationProperties

(D) @ConfigurationPropertiesScan

**Q8.** What is the purpose of @SpringBootConfiguration annotation in a Spring Boot web application?
(A) enables registration of extra beans in the context

(B) scans on the package where the application is located

(C) enables Spring Boot's auto-configuration mechanism

(D) disables additional configuration classes from the application

**Q9.** Johnson is a developer. He is working in a Hibernate based application. He defines a class, called 'InvoiceId'. The fields 'category' and 'name' will represent a unique InvoiceId as below:
@Embeddable
public class InvoiceId implements Serializable {

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```
private String category;

private String name;

    // getters and setters // equals() and hashCose()
}
```

**(A)** @Entity
```
public class Invoice {
    @Id
    @Embedded
privateInvoiceId id;
private String description;
private Double amount;
    //standard getters and setters
}
```

**(B)** @Entity
```
public class Invoice {
    @EmbeddedId
privateInvoiceId id;
private String description;
private Double amount;
    //standard getters and setters
}
```

**(C)** @Entity
```
public class Invoice {
    @Id
privateInvoiceId id;
private String description;
private Double amount;
    //standard getters and setters
}
```

**(D)** @Entity
```
public class Invoice {
    @EmbeddableId
privateInvoiceId id;
private String description;
private Double amount;
    //standard getters and setters
}
```

**Q10.** Suppose you are working on a Hibernate-based application. You have two classes as below. You want to create a table into the database using hibernate ORM concept.
```
public class Employee {
privateint id;
private Name name;
private double salary;
    // getters & setters
```

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```java
public class Name {
private String firstName;
private String lastName;
 //getters & setters
}
```

```java
(A) public class Employee {
    @Id
privateint id;
private Name name;
private double salary;
    // getters & setters
 }
```

```java
    @Embeddable
public class Name {
private String firstName;
private String lastName;
    // getters & setters
 }
```

```java
(B) @Entity
public class Employee {
    @Id
privateint id;
    @Embedded
private Name name;
private double salary;
    // getters & setters
 }
```

```java
    @Embedded
public class Name {
private String firstName;
private String lastName;
    // getters & setters
 }
```

```java
(C) @Entity
public class Employee {
    @Id
privateint id;
    @Embedded
private Name name;
private double salary;
    // getters & setters
 }
```

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```
@Entity
public class Name {
private String firstName;
private String lastName;
    // getters & setters
}
```

```
(D) @Entity
public class Employee {
    @Id
privateint id;
    @Embeddable
private Name name;
private double salary;
    // getters & setters
}
```

```
@Entity
public class Name {
private String firstName;
private String lastName;
    // getters & setters
}
```

**Q11.** Mary is working in a Hibernate based application as a web-application developer. She has two entities in her application: Student & Address. She is implementing a relation where One student can have multiple addresses and one address can accommodate multiple students in a bidirectional relationship. Mary doesn't want hibernate to create one additional table. Which of the following annotation and its attribute will she use to fulfill the given requirement?

**(A) @ManyToMany and mappedBy**

**(B) @ManyToOne and mappedBy**

**(C) @OneToMany and MappedBy**

**(D) @OneToOne and MappedBy**

**(A) Entity access behavior is Field Access**

**(B) Entity access behavior is Property Access**

**(C) It represents both field & property access behavior**

**(D) From the given information, we can't determine the Access behavior**

**Q12.** In the context of Access types in Hibernate, if @Id is located at the getter method of an entity, what does it mean?

**(A) Entity access behavior is Field Access**

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(B) Entity access behavior is Property Access

(C) It represents both field & property access behavior

(D) From the given information, we can't determine the Access behavior

Q13. Suppose you are working on a web application that uses Hibernate as an ORM tool. At which level/(s) @Access is allowed to be used in an Entity?
(A) Field Level

(B) Method Level, Field Level

(C) Method Level

(D) Field Level, Method Level, Class level

Q14. In JPA, which one of the following annotation converts the date and time values from Java object to compatible database type and retrieves back to the application.
(A) @Timestamp

(B) @Time

(C) @Temporal

(D) @Date

Q15. Jacob is working on a web application where JPA is being used in data layer. He wrote a POJO class and wants this class to work as an entity to implement the ORM concept. What are the minimum required annotations he must use at the class to create a table in the database?
(A) @Id, @Entity

(B) @Table, @Entity, @Id

(C) @Column, @Entity, @Table

(D) @Id, @GeneratedValue

Q16. Consider the following bean definition :
<bean id="test" class="com.dev.test.TestBean" />
Which of the below bean scope is applied in this bean?

(A) Session

(B) Request

(C) Prototype

(D) Singleton

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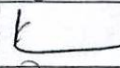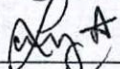Web: www.sapthagiri.edu.in, Email: principal@sapthagiri.edu.in

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```
(A) @Component
@Scope("request")
public class Product {
   //some methods and properties
}


(B) @Component
@Scope("session")
public class Product {
   //some methods and properties
}


(C) @Component
   @Sessionscope
public class Product {
   //some methods and properties
}


(D) @Component
   @SessionScope
public class Product {
   //some methods and properties
}
```

Q18. Suppose you are working on a Spring based Web Application. Generally, there are three ways to implement a core feature of Spring framework in your application. Below are the three ways:

1) Using Annotation    2) Using XML configuration    3) Implementing Interfaces provided by Spring framework

Which option is correct if you want to define Bean Lifecycle methods in your project:

(A) Only Option (1)

(B) Option (1) & Option (2)

(C) Option (2) & Option (3)

(D) All three

Q19. Which option is incorrect about @Component annotation?

(A) It scans our application for classes annotated with *@Component*

(B) It instantiates classes whenever required

(C) It supports Spring's auto-detection mechanism

(D) It doesn't inject any specified dependencies

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**Q20.** Melissa works in an application where Spring is being used. She wrote a custom function in a class that handles bean life cycle disposal. By mistake, She also implemented the DisposableBean interface and overrides the default method provided by the Spring container in the same class. What will happen if she runs the application?

**(A) Only default method will be called**

**(B) Only custom method will be called**

**(C) First default method and then custom method will be called**

**(D) First custom method and then default method will be called**

**Approved by Academic Committee Members & Guest Speaker**

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| 2. | Dr. PRAVEEN KUMAR K V | Professor | |
| 3. | Dr. LAVANYA N L | Associate Professor | |
| 4. | Prof. MADHUSHREE | Assistant Professor | |

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# SCHEME

**A1.** B is correct. Option 'A' and 'D' has syntactical errors. Option 'C' has PrototypeScope which is not a valid attribute. Hence B is correct.

**A2.** B is correct. Option B has incorrect attribute 'Scope'. It should be 'scope'. All Other options are correct.

**A3.** C is correct. Spring doesn't provide any class to extend in order to create life cycle methods, but it provides interfaces.

**A4.** C is correct. Spring allows your bean to perform destroy callback method by implementing the DisposableBean interface. Option B & D are the annotations, not the interface.

**A5.** B is correct. A BeanFactory is the interface which is capable of maintaining a registry of different beans and their dependencies.

**A6.** D is correct. BeanFactory does not support the Annotation-based dependency injection, whereas ApplicationContext, a superset of BeanFactory does.

**A7.** B is correct. @SpringBootConfiguration is an alternative to Spring's standard @Configuration annotation.

**A8.** A is correct. @SpringBootConfiguration enables registration of extra beans in the context or the import of additional configuration classes.

**A9.** B is correct. @EmbeddedId is the correct annotation to represent that an entity has a composite key.

**A10.** C is correct. In Option A , @Entity is missing in Employee class. In Option B, @Embedded is disallowed at class level and In Option D, @Embeddable is disallowed at field level.

**A11.** C is correct. As per the problem statement, only @OneToMany or @Many ToOne can be used. Hence, Options A& D are incorrect. MappedBy attribute is disallowed in @ManyToOne, that makes Option B also incorrect. Hence, option C is correct.

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**A12.** B is correct. If we apply @Id on the getter method of an entity/class, it means property access behavior is enabled. If we apply @Id on field, it means field access behavior is enabled.

**A13.** D is correct. @Access can be used at all three levels : Field, Method & Class.

**A14.** C is correct. @Temporal annotation converts the date and time values from Java object to compatible database type and retrieves back to the application.

**A15.** A is correct. In order to create a table in the database, @Entity & @Id annotations are mandatory, otherwise JPA will throw an exception.

**A16.** D is correct. A bean has singleton scope by default, whether we declare it in the bean definition or not.
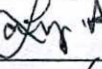
**A17.** C is correct. Option C has incorrect annotation. It should be '@SessionScope' in place of '@Sessionscope'. All other options are correct.

**A18.** D is correct. There are three ways to define bean life cycle methods: Annotation or XML configuration or Spring Interfaces.

**A19.** D is correct. @Component annotation also injects any specified dependencies.

**A20.** C is correct. Default methods provided by Spring always take precedence in a bean life cycle.

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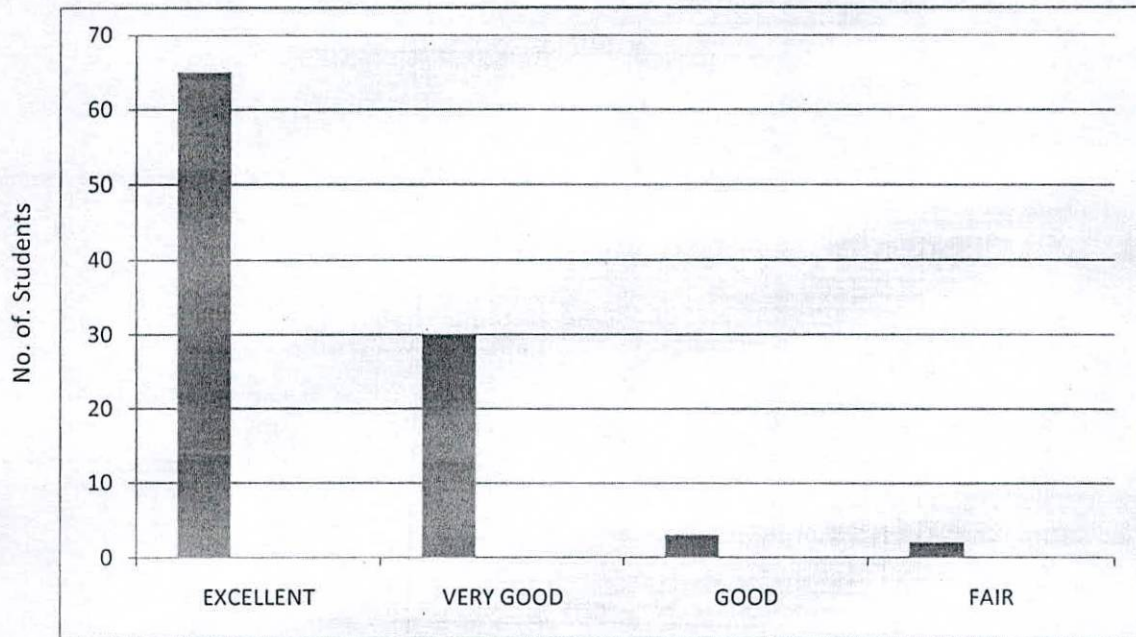Web: www.sapthagiri.edu.in, Email: principal@sapthagiri.edu.in
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### FEEDBACK ANALYSIS

Certification Programme: **"SPRING AND HIBERNATE"**

| No. of students | Student Feedback | | | |
|---|---|---|---|---|
| | Excellent | Very Good | Good | Fair |
| 100 | 65 | 30 | 3 | 2 |



**Action Report:**

65% of students were completely happy with the certification program, 30% of students felt it was a very good program, 3% of students felt it was a good program and remaining 2% students were satisfied with the program.

**Action Taken:**

The Feedback report which was collected from the students were sent to the principal and he would take necessary actions based on the comments and conduct more programs for the benefit of students.

Madhushree

**Coordinator**

**HOD**

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## Department of Computer Science & Engineering

### POST EVENT REPORT ON CERTIFICATION COURSE

### "SPRING AND HIBERNATE"

Department of Computer Science & Engineering conducted Certification Course on "SPRING AND HIBERNATE" from 12th September 2022 to 17th September 2022.

- **Objective of the Course**: The Six day course made the students to be familiar with the major concepts in "SPRING AND HIBERNATE" which is a main platform for their career .Certification Course became the vital step to improve the knowledge of students.

- **Speakers:** Dr.Praveen Kumar K V, Prof. Madhushree , Prof. Anuradha B, Prof. Vanitha G P, Prof. Shobha K Sapthagiri College of Engineering, Bangalore.

- **Duration of the course**: Six days from 12th Sep 2022 to 17th Sep 2022.

Students attended the certification program. The course was successfully organized and carried out by Computer Science & Engineering department.

Speakers delivered talk and Hands on session on the following topics and the training program covered the following domains,

1. Basics of Java
2. Overview of Spring Framework
3. How simplify Application development in Spring
4. Overview of Hibernate Framework
5. Java ORM Frameworks

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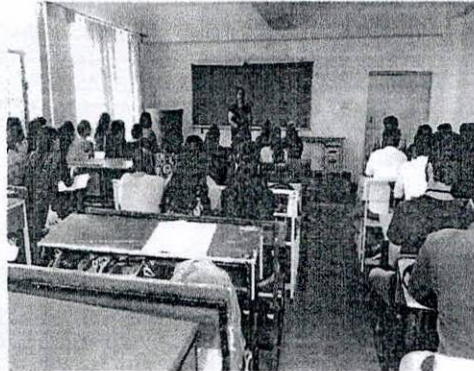Web: www.sapthagiri.edu.in, Email: principal@sapthagiri.edu.in
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### FEW SCREENSHOTS OF THE PROGRAM



Speaker Prof. Vanitha hands on session
On Basics of Java.
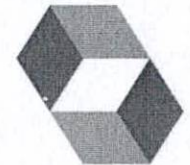


Speaker Prof. Madhushree delivering concepts on
Springs

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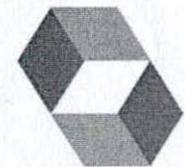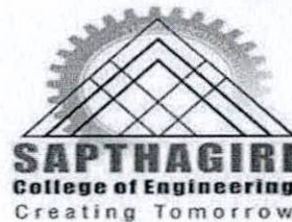
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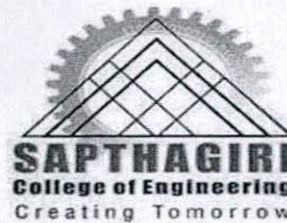
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Principal

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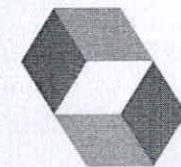
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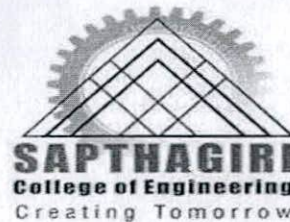**PRINCIPAL**

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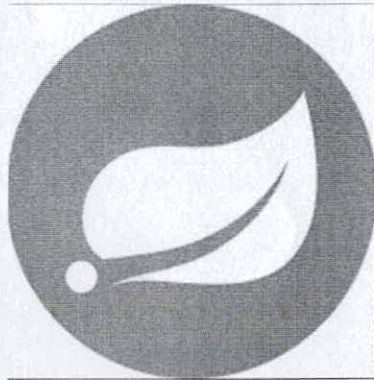14/5, Chikkasandra, Hesaraghatta Main R...
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