

Course Name: Principles of Marketing

Class/Sem: B.Com-5 BCR503 AY: 2017-18

Faculty Name: Mr. Manoj Mishra

Program Name: B.Com(H)

| S. No. | University Reg. No. | Student Name | First Unit Test Theory (30) | Second Unit Test Theory (30) | First Class Test Theory (10) | Second Class Test Theory (10) | Best One From Unit Test Theory (30) | Best One Form Class Test Theory (10) | Internal Marks Scheme | | | Total Internal Marks Theory (30) | End Sem Exam Marks Theory (70) | Total Marks Theory (100) |
|---|---------------------|----------------------|--------------------------------|---------------------------------|---------------------------------|----------------------------------|--|---|-----------------------|----------------------|-----------------------------|-------------------------------------|-----------------------------------|-----------------------------|
| | | | | | | | | | Unit Test(UT) 12 | Attendance(AT) 12 | Teacher Assessment(TA) 6 | | | |
| 1 | BCR2015023 | AKANSH GUPTA | 15 | 12 | 5 | 4 | 15 | 5 | 6 | 6 | 3 | 15 | 30 | 45 |
| 2 | BCR2015019 | SHANTANU CHAUDHARY | 28 | 22 | 8 | 7 | 28 | 8 | 11 | 10 | 5 | 26 | 44 | 70 |
| 3 | BCR2015050 | Akram Khan | 23 | 18 | 7 | 5 | 23 | 7 | 9 | 8 | 4 | 21 | AB | 21 |
| 4 | BCR2015002 | SHIVAM GUPTA | 18 | 14 | 5 | 4 | 18 | 5 | 7 | 7 | 3 | 17 | 20 | 37 |
| 5 | BCR2015013 | AMANDEEP KAUR | 23 | 18 | 7 | 5 | 23 | 7 | 9 | 9 | 4 | 22 | 45 | 67 |
| 6 | BCR2015012 | AMOL SHARMA | 30 | 24 | 8 | 7 | 30 | 8 | 12 | 12 | 5 | 29 | 58 | 87 |
| 7 | BCR2015046 | Anshul Rastogi | 28 | 22 | 8 | 7 | 28 | 8 | 11 | 10 | 5 | 26 | 52 | 78 |
| 8 | BCR2015005 | SHWETA SINGH RATHORE | 30 | 24 | 8 | 7 | 30 | 8 | 12 | 12 | 5 | 29 | 60 | 89 |
| 9 | BCR2015017 | SIDDHARTH PANDEY | 25 | 20 | 7 | 5 | 25 | 7 | 10 | 10 | 4 | 24 | 49 | 73 |
| 10 | BCR2015006 | SURENDRA KUMAR | 15 | 12 | 5 | 4 | 15 | 5 | 6 | 6 | 3 | 15 | 25 | 40 |
| 11 | BCR2015044 | GulFam Khan | 23 | 18 | 7 | 5 | 23 | 7 | 9 | 8 | 4 | 21 | 32 | 53 |
| 12 | BCR2015042 | Umang Goel | 15 | 12 | 5 | 4 | 15 | 5 | 6 | 6 | 3 | 15 | 38 | 53 |
| 13 | BCR2015027 | KM SURABHI YADAV | 15 | 12 | 5 | 4 | 15 | 5 | 6 | 6 | 3 | 15 | 39 | 54 |
| 14 | BCR2015015 | VAISHALI | 28 | 22 | 8 | 7 | 28 | 8 | 11 | 11 | 5 | 27 | 53 | 80 |
| 15 | BCR2015004 | VANSHIKA GANGWAR | 23 | 18 | 7 | 5 | 23 | 7 | 9 | 8 | 4 | 21 | 47 | 68 |
| 16 | BCR2015001 | YASH RASTOGI | 15 | 12 | 5 | 4 | 15 | 5 | 6 | 6 | 3 | 15 | 21 | 36 |
| 17 | BCR2015014 | KRISHNA SAXENA | 20 | 16 | 5 | 4 | 20 | 5 | 8 | 8 | 3 | 19 | 38 | 57 |
| 18 | BCR2015007 | KUMAR LAKSHAY | 23 | 18 | 7 | 5 | 23 | 7 | 9 | 8 | 4 | 21 | 33 | 54 |
| 19 | BCR2015016 | LOKESH MISHRA | 30 | 24 | 8 | 7 | 30 | 8 | 12 | 11 | 5 | 28 | 37 | 65 |
| 20 | BCR2015049 | SIMRANJEET CHEEMA | 18 | 14 | 5 | 4 | 18 | 5 | 7 | 7 | 3 | 17 | 40 | 57 |
| 21 | BCR2015021 | MANAS KRISHAN GOEL | 23 | 18 | 7 | 5 | 23 | 7 | 9 | 9 | 4 | 22 | 7 | 29 |
| 22 | BCR2015040 | MANISHA KOCHAR | 25 | 20 | 7 | 5 | 25 | 7 | 10 | 9 | 4 | 23 | 57 | 80 |
| 23 | BCR2015038 | AISHA MOIN | 25 | 20 | 7 | 5 | 25 | 7 | 10 | 9 | 4 | 23 | 51 | 74 |
| 24 | BCR2015008 | MOHD URFI KHAN | 28 | 22 | 8 | 7 | 28 | 8 | 11 | 10 | 5 | 26 | 19 | 45 |
| 25 | BCR2015018 | MOHIT GUPTA | 15 | 12 | 5 | 4 | 15 | 5 | 6 | 6 | 3 | 15 | 19 | 34 |
| 26 | BCR2015041 | Navjot Singh | 15 | 12 | 5 | 4 | 15 | 5 | 6 | 6 | 3 | 15 | 36 | 51 |
| 27 | BCR2015031 | PRACHI MISHRA | 28 | 22 | 8 | 7 | 28 | 8 | 11 | 10 | 5 | 26 | 49 | 75 |
| 28 | BCR2015025 | PRIYANSHU GUPTA | 25 | 20 | 8 | 7 | 25 | 8 | 10 | 10 | 5 | 25 | AB | 25 |
| 30 | BCR2015039 | Sankalp Agrawal | 13 | 10 | 3 | 3 | 13 | 3 | 5 | 5 | 2 | 12 | 39 | 51 |
| Students appeared for the examination | | | 29 | 29 | 29 | 29 | 29 | 29 | 29 | 29 | 29 | 25 | 27 | 29 |
| Target / satisfactory mark set as benchmark | | | 18 | 18 | 5 | 5 | 13 | 6 | 6 | 6 | 4 | 18 | 42 | 60 |
| Students scored above the target set | | | 19 | 18 | 28 | 18 | 28 | 18 | 28 | 28 | 18 | 19 | 11 | 12 |
| % Students scored above the target set | | | 66% | 62% | 97% | 62% | 97% | 62% | 97% | 97% | 62% | 76% | 41% | 41% |

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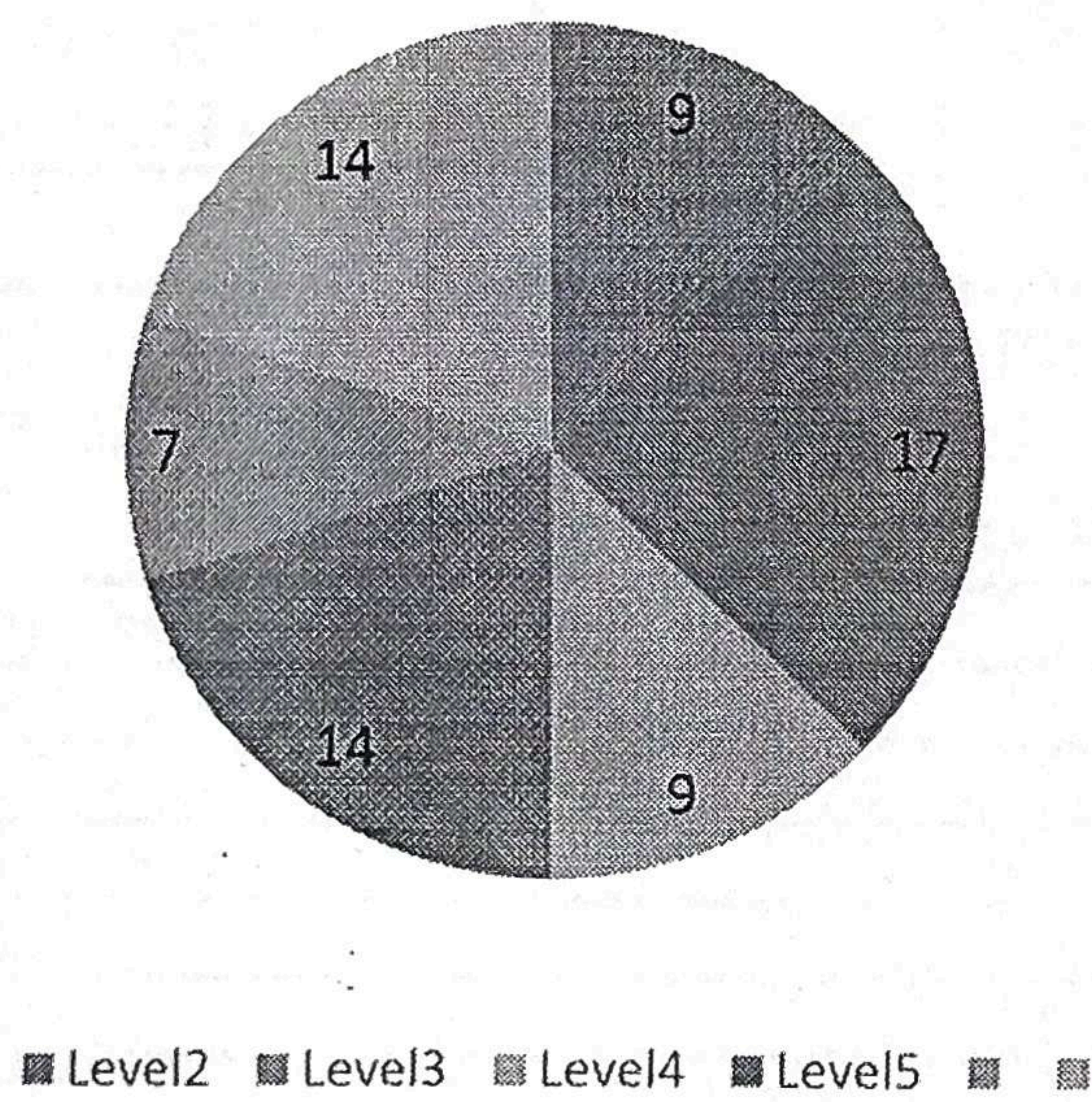
| Q.No | Questions | Marks (70) | CO | BL |
|-------|--|------------|-----|----|
| 1-I | Diagrammatically represent consumer decision making process for services. | 01 | CO1 | L2 |
| 1-II | Differentiate between marketing and societal marketing. | 01 | CO2 | L1 |
| 1-III | What are various labeling decisions a pharmaceutical product manufacturer has to take? | 01 | CO2 | L2 |
| 1-IV | What are different types of intermediaries? | 01 | CO3 | L3 |
| 1-V | What are different types of distribution channels in B2C marketing? | 01 | CO2 | L1 |
| 1-VI | What is importance of MIS in marketing? | 01 | CO1 | L1 |
| 1-VII | What is targeting? | 01 | CO1 | L1 |
| 2-I | What are components of Marketing Information System? | 01 | CO1 | L1 |
| 2-II | Define Positioning. | 01 | CO1 | L1 |
| 2-III | What are functions of Packaging? | 01 | CO1 | L1 |
| 2-IV | Define Publicity. | 01 | CO1 | L2 |
| 2-V | Define Buzz Marketing. | 01 | CO1 | L1 |
| 2-VI | What is customer relationship management. | 01 | CO1 | L3 |
| 2-VII | Define physical distribution. | 01 | CO1 | L1 |
| 3-I | What are various elements of the marketing mix? Elaborate with illustrations. OR What factors should be considered while deciding the price of a product? Explain alternative pricing strategies, with examples. | 7 | CO2 | L2 |
| 3-II | Describe various strategies to be pursued at different stages of product life cycle with illustrations. OR Describe the advantages of undertaking global marketing. | 7 | CO3 | L2 |
| 4-I | Which internal and external factors influence factors influence the setting of the price of a product and eventual changes therein. Explain citing examples. Or Write a critical note on the emerging role of a conventional retailer, in the context of the rise of the Super markets and super malls. | 7 | CO3 | L5 |
| 4-II | R.K.Industries Ltd., intends to launch a new folding exercise cycle in Indian market. As a marketing manager which steps would you like to take while launching this product? How will you conduct the test marketing for this product? Make necessary assumptions and justify your answer. Or | 7 | CO4 | L3 |
| 5 | Discuss the five stage model of consumer decision making process. What are various push and pull strategies which can be used by a marketer to motivate a consumer to rush through these stages of decision making process? Or What are the scope of Digital marketing write with help of suitable examples. | 14 | CO5 | L4 |

| | | | | |
|---|---|----|-----|----|
| 6 | What is consumer behaviour? Discuss the buying decision process with help of suitable examples. Or What is STP? Explain with help of suitable examples. | 14 | CO6 | L6 |
|---|---|----|-----|----|

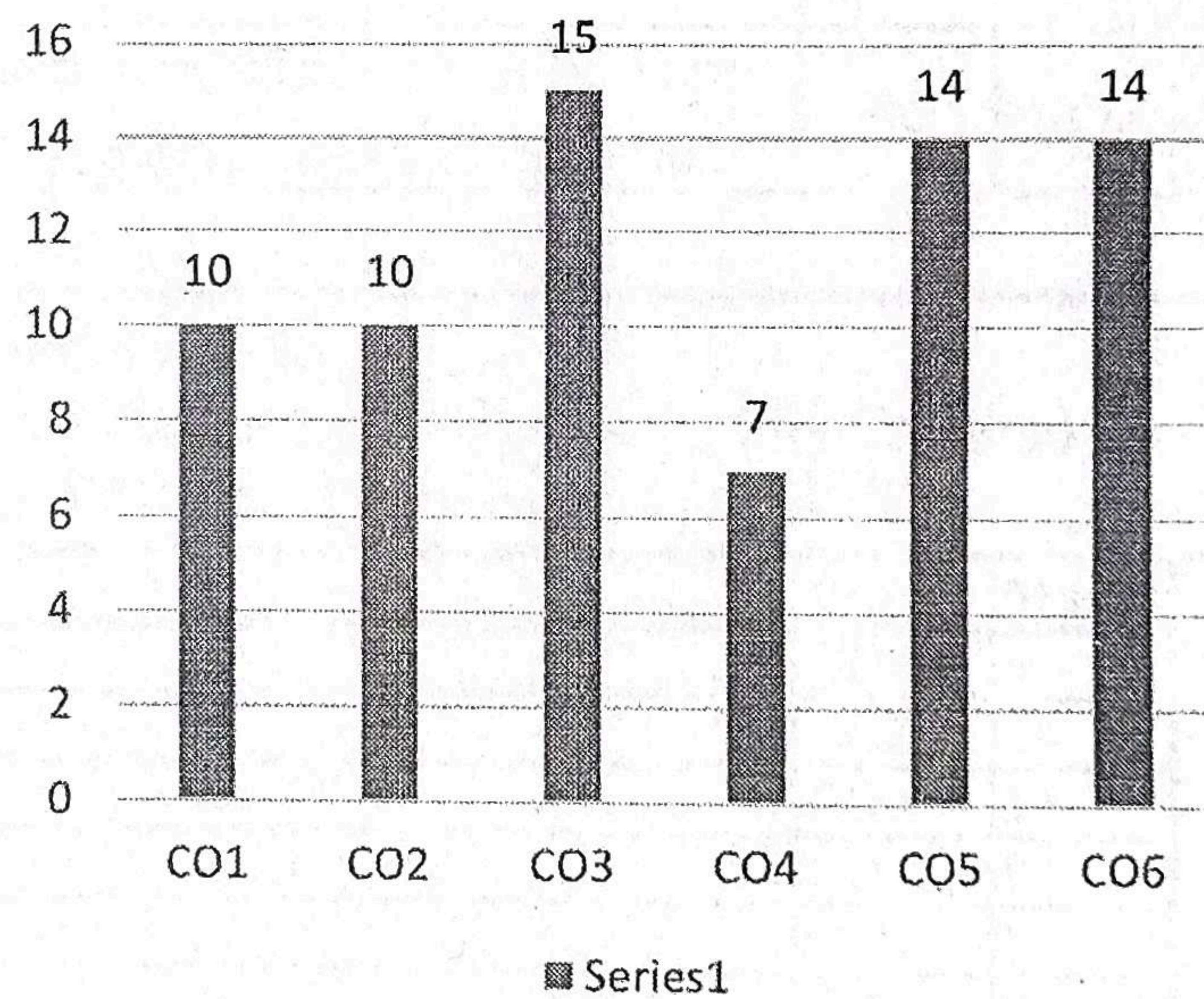
BL – Bloom’s Taxonomy Levels
(1- Remembering, 2- Understanding, 3 – Applying, 4 – Analysing, 5 – Evaluating, 6 - Creating)
CO – Course Outcomes PO – Program Outcomes; PI Code – Performance Indicator Code

| Level | Marks | CO | Marks |
|--------------|-----------|--------------|-----------|
| Level1 | 9 | CO1 | 10 |
| Level2 | 17 | CO2 | 10 |
| Level3 | 9 | CO3 | 15 |
| Level4 | 14 | CO4 | 7 |
| Level5 | 7 | CO5 | 14 |
| Level6 | 14 | CO6 | 14 |
| Total | 70 | Total | 70 |

Bloom's Level wise Marks Distribution



Course Outcome wise Marks Distribution



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| Q.No | Questions | Marks (30) | CO | BL |
|-------|--|------------|-----|----|
| 1-I | Define Marketing. | 01 | CO1 | L1 |
| 1-II | What are various elements of the marketing mix? | 01 | CO1 | L1 |
| 1-III | Define Marketing information System. | 01 | CO2 | L2 |
| 1-IV | Define Market Segmentation. | 01 | CO1 | L2 |
| 1-V | What is skimming pricing? | 01 | CO1 | L1 |
| 2-I | Describe Green Marketing? OR Describe Public Relations. | 05 | CO2 | L2 |
| 3 | Answer any two questions : A) What are various factors in the marketing environment which must be kept in mind while designing marketing strategies? Elaborate with illustrations. B) Why is it important to study consumer behaviour? Identify factors influencing consumer buying behaviour? | 08 | CO2 | L3 |
| 4-A | Explain the communication process. Describe the various elements of the promotion mix, with examples. | 06 | CO3 | L4 |
| 4-B | What are various factors in the marketing environment which must be kept in mind while designing marketing strategies? Elaborate with illustrations. | 06 | CO3 | L4 |

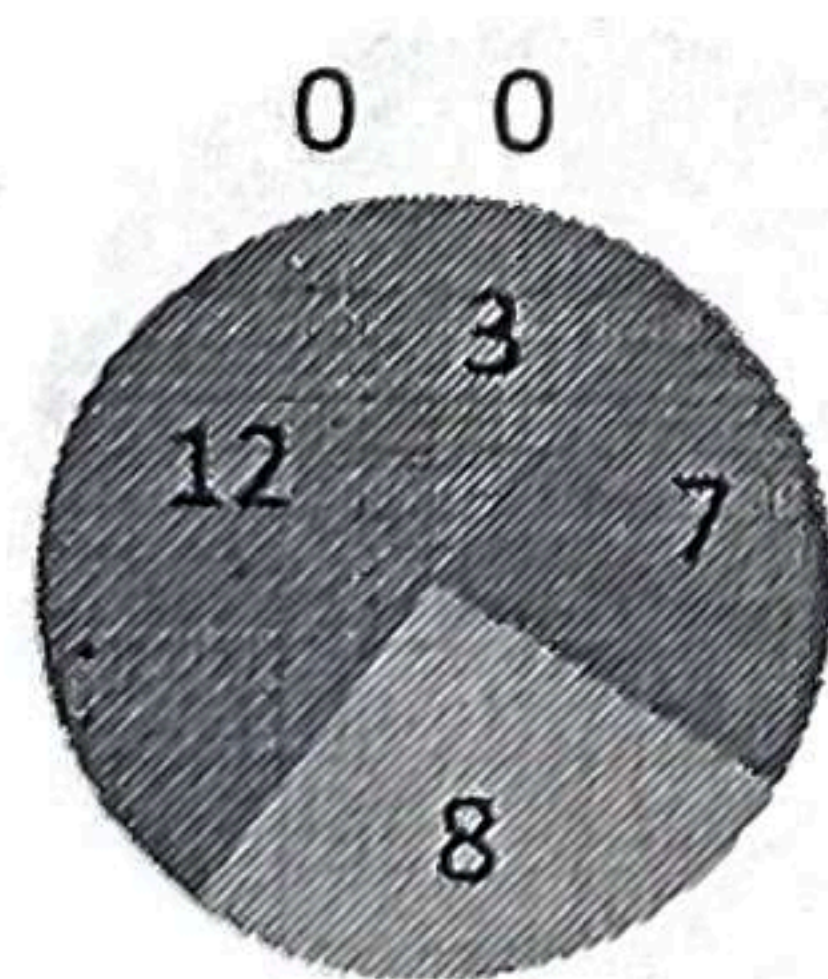
BL – Bloom's Taxonomy Levels

(1- Remembering, 2- Understanding, 3 – Applying, 4 – Analysing, 5 – Evaluating, 6 - Creating)

CO – Course Outcomes PO – Program Outcomes; PI Code – Performance Indicator Code

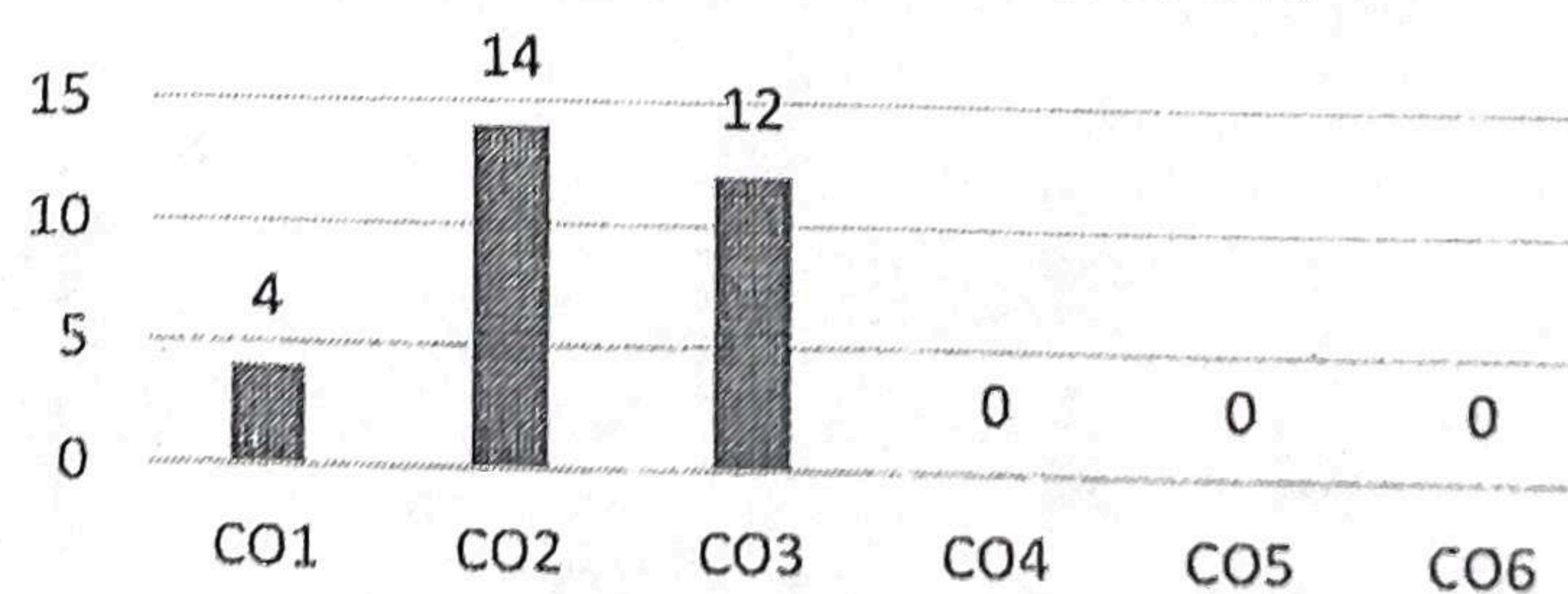
| Level | Marks | CO | Marks |
|--------------|-----------|--------------|-----------|
| Level1 | 3 | CO1 | 4 |
| Level2 | 7 | CO2 | 14 |
| Level3 | 8 | CO3 | 12 |
| Level4 | 12 | CO4 | 0 |
| Level5 | 0 | CO5 | 0 |
| Level6 | 0 | CO6 | 0 |
| Total | 30 | Total | 30 |

Bloom's Level wise Marks Distribution



■ Level1 ■ Level2 ■ Level3 ■ Level4 ■ Level5 ■ Level6

Course Outcome wise Marks Distribution



■ Series1

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| Q.No | Questions | Marks (30) | CO | BL |
|-------|--|------------|-----|----|
| 1-I | What is viral marketing? | 01 | CO4 | L1 |
| 1-II | What are features of a good label? | 01 | CO4 | L1 |
| 1-III | What are functions of a retailer? | 01 | CO4 | L2 |
| 1-IV | What are the negative indices? | 01 | CO4 | L1 |
| 1-V | Define E-commerce. | 01 | CO4 | L1 |
| 2 | Explain salient features of Customer relationship management, with illustrations. OR Explain the communication process. Describe the various elements of the promotion mix, with examples. | 05 | CO4 | L2 |
| 3 | Answer any two questions A) What is CRM? Name two companies in India that have adopted CRM as a competitive advantage. B) what are the different types of intermediaries? | 08 | CO5 | L3 |
| 4-A | What are different types of distribution channels in B2C marketing? | 06 | CO6 | L4 |
| 4-B | What is importance of MIS in marketing? | 06 | CO6 | L5 |

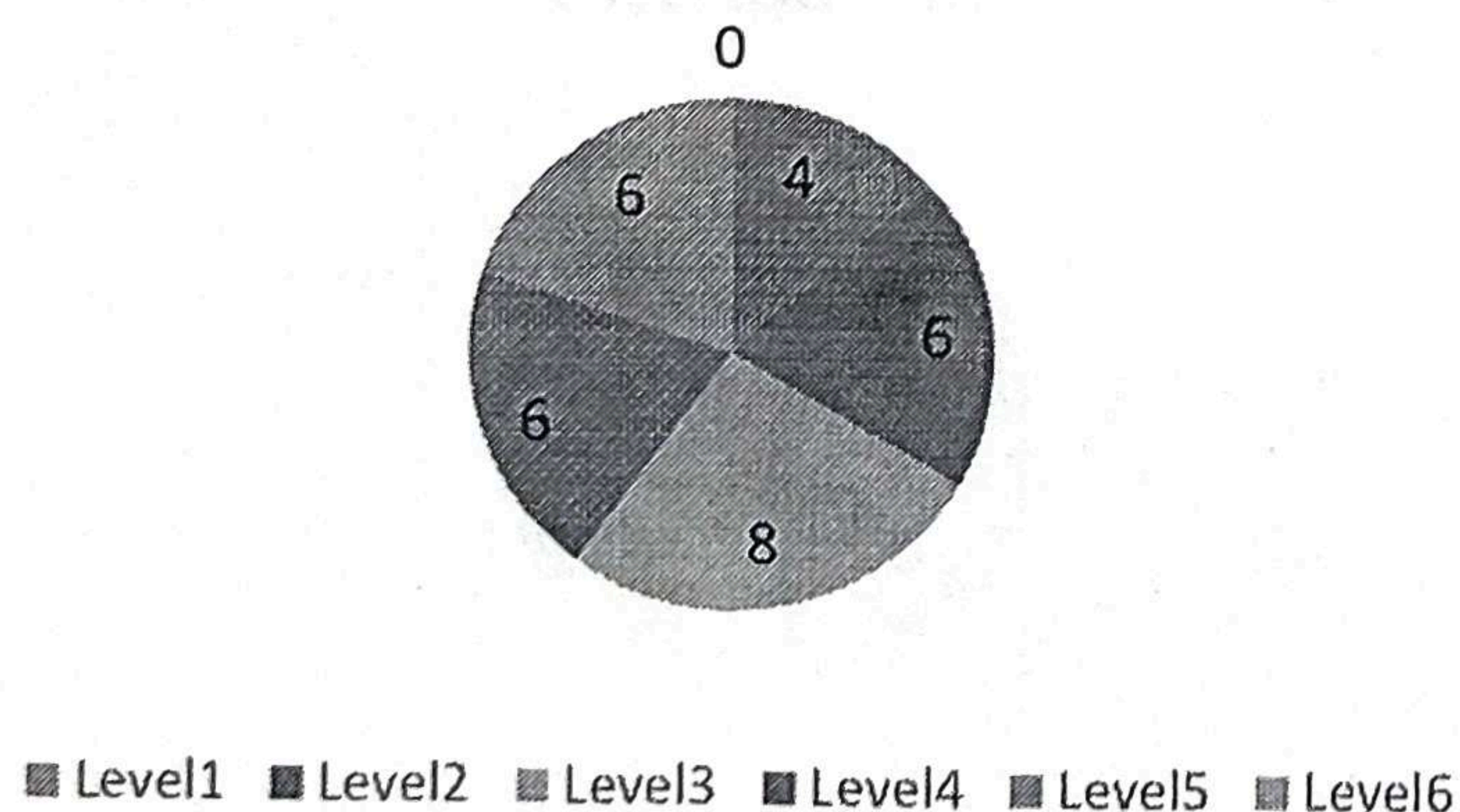
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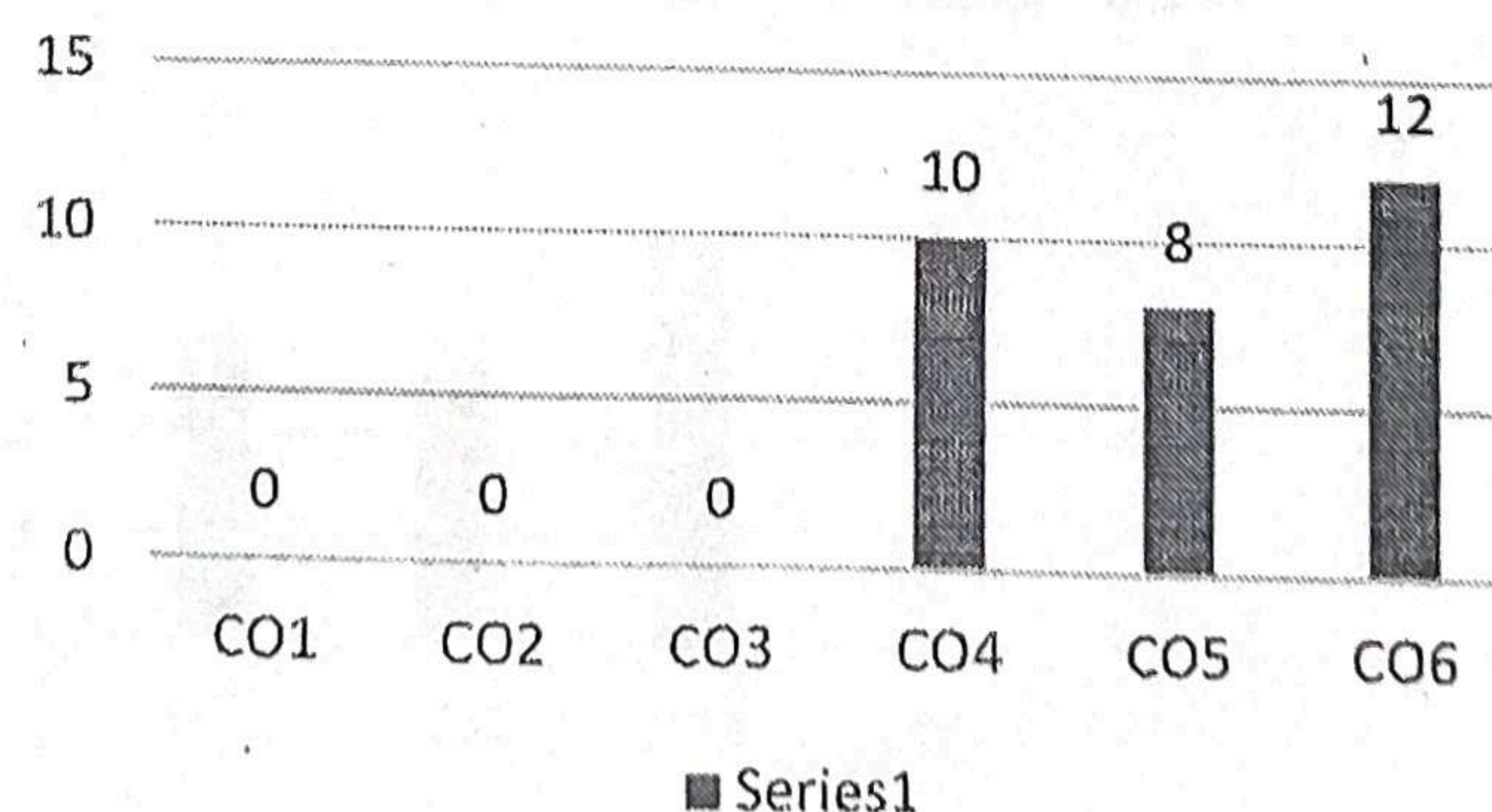
CO – Course Outcomes PO – Program Outcomes; PI Code – Performance Indicator Code

| Level | Marks | CO | Marks |
|--------------|-----------|--------------|-----------|
| Level1 | 4 | CO1 | 0 |
| Level2 | 6 | CO2 | 0 |
| Level3 | 8 | CO3 | 0 |
| Level4 | 6 | CO4 | 10 |
| Level5 | 6 | CO5 | 8 |
| Level6 | 0 | CO6 | 12 |
| Total | 30 | Total | 30 |

Bloom's Level wise Marks Distribution



Course Outcome wise Marks Distribution



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| Q.No | Questions | Marks (10) | CO | BL |
|------|--|------------|-----|----|
| 1 | Differentiate between marketing and societal marketing. | 03 | CO1 | L3 |
| 2 | What are various labeling decisions a pharmaceutical product manufacturer has to take? | 03 | CO2 | L1 |
| 3 | What are different types of intermediaries? | 04 | CO3 | L4 |
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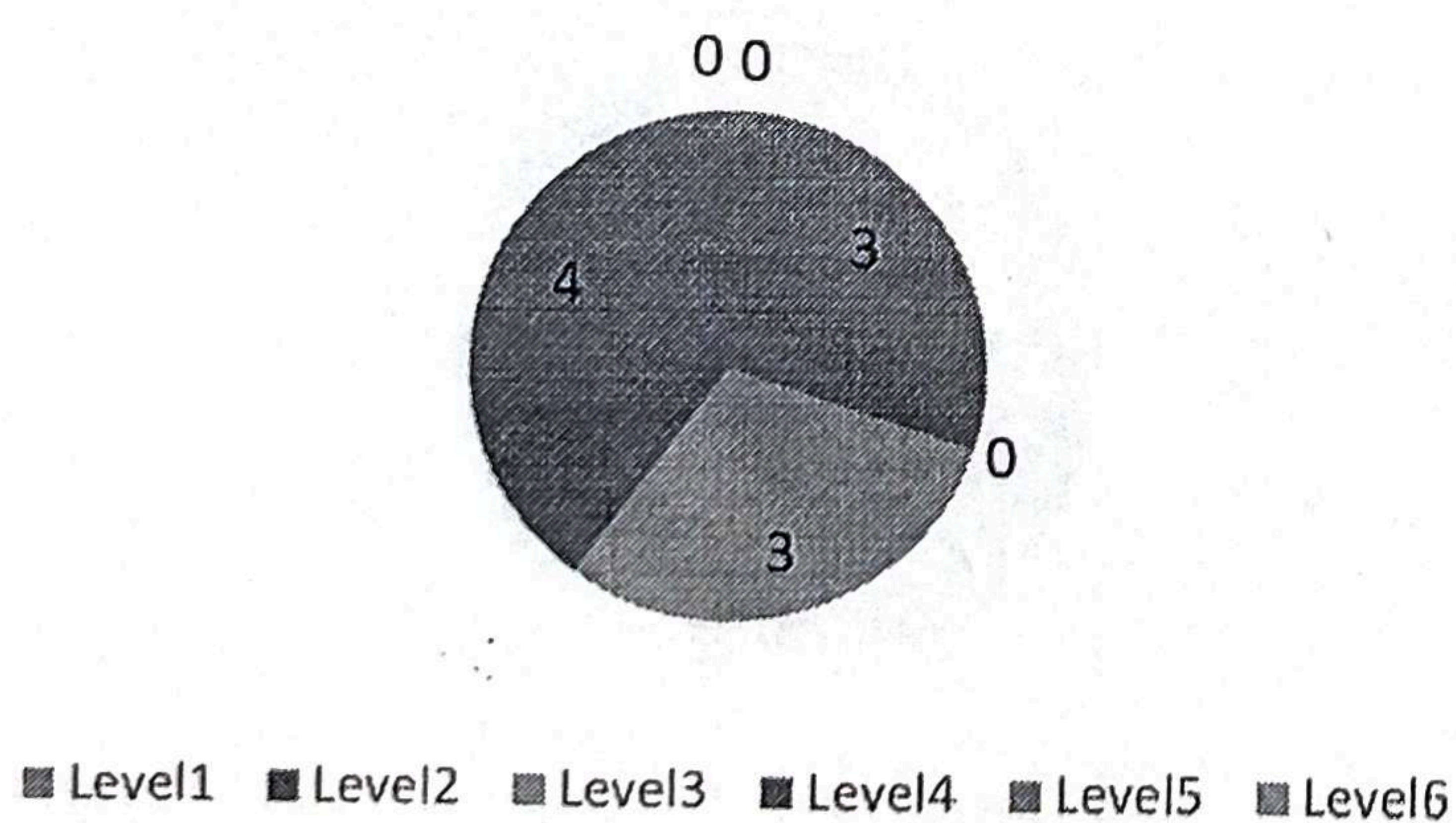
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(1- Remembering, 2- Understanding, 3 – Applying, 4 – Analysing, 5 – Evaluating, 6 - Creating)

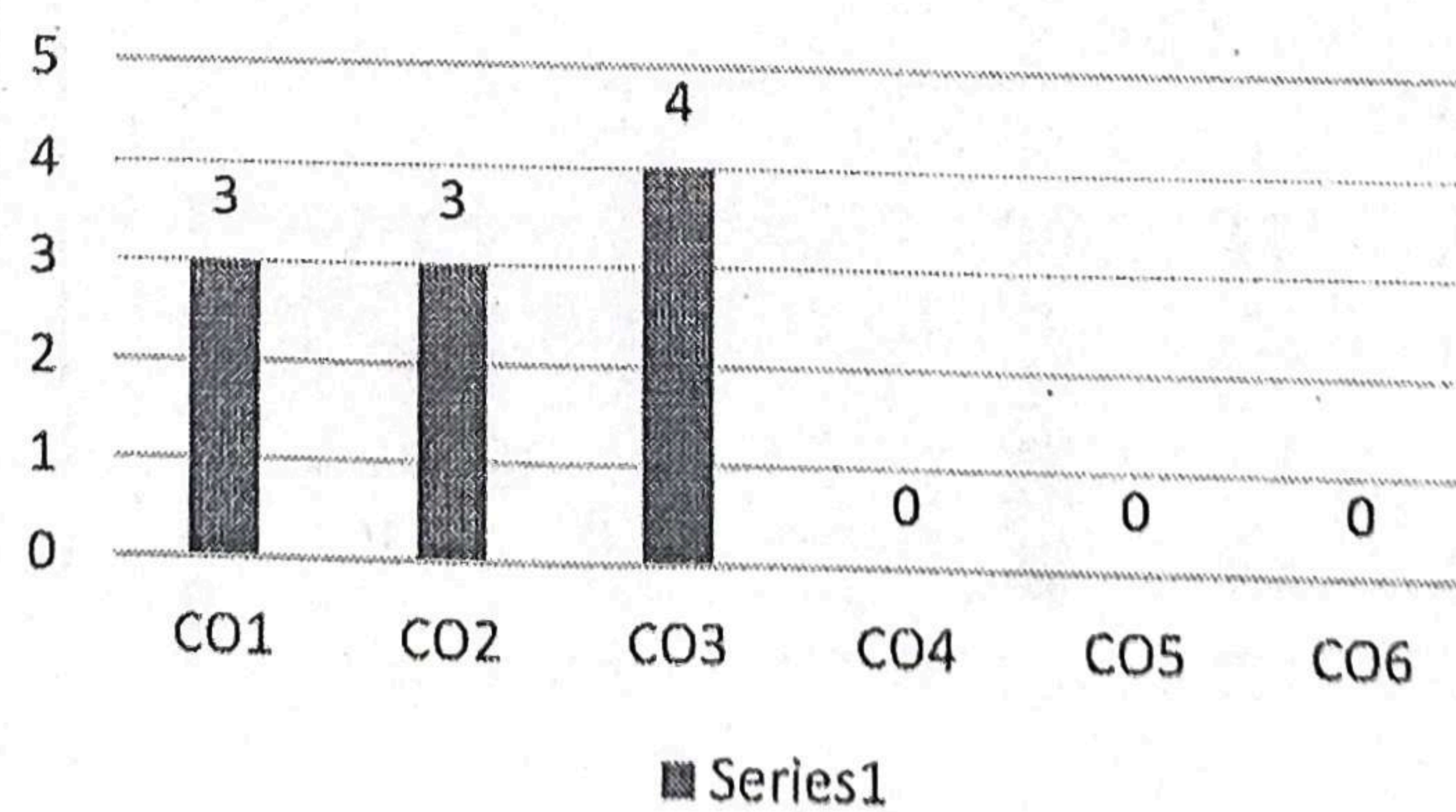
CO – Course Outcomes PO – Program Outcomes; PI Code – Performance Indicator Code

| Level | Marks | CO | Marks |
|--------------|-----------|--------------|-----------|
| Level1 | 3 | CO1 | 3 |
| Level2 | 0 | CO2 | 3 |
| Level3 | 3 | CO3 | 4 |
| Level4 | 4 | CO4 | 0 |
| Level5 | 0 | CO5 | 0 |
| Level6 | 0 | CO6 | 0 |
| Total | 10 | Total | 10 |

Bloom's Level wise Marks Distribution




Course Outcome wise Marks Distribution



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| Q.No | Questions | Marks (10) | CO | BL |
|------|---|------------|-----|----|
| 1 | What are different types of distribution channels in B2C marketing? | 03 | CO4 | L2 |
| 2 | What is importance of MIS in marketing? | 03 | CO5 | L1 |
| 3 | Explain salient features of Customer relationship management, with illustrations. | 04 | CO6 | L4 |
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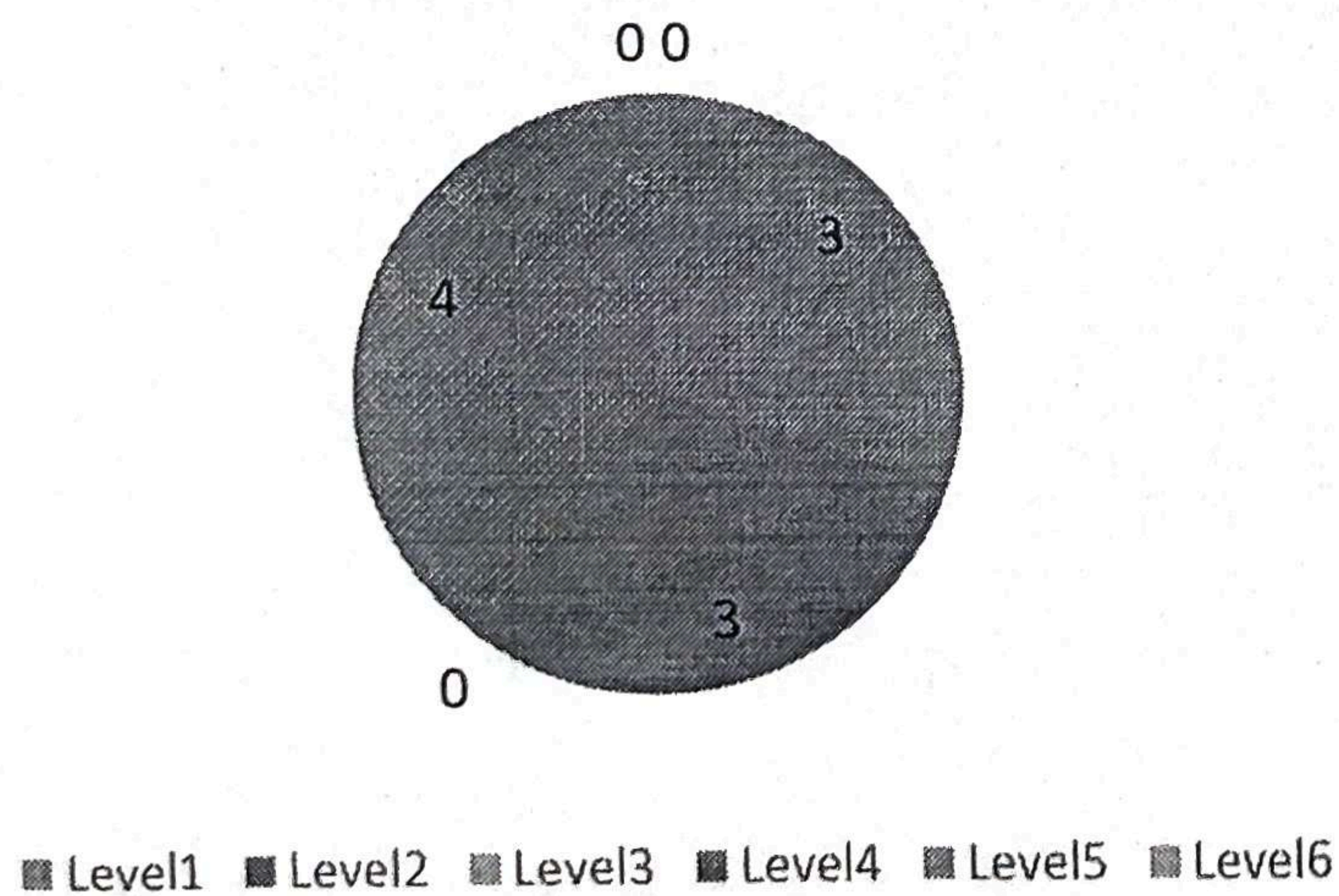
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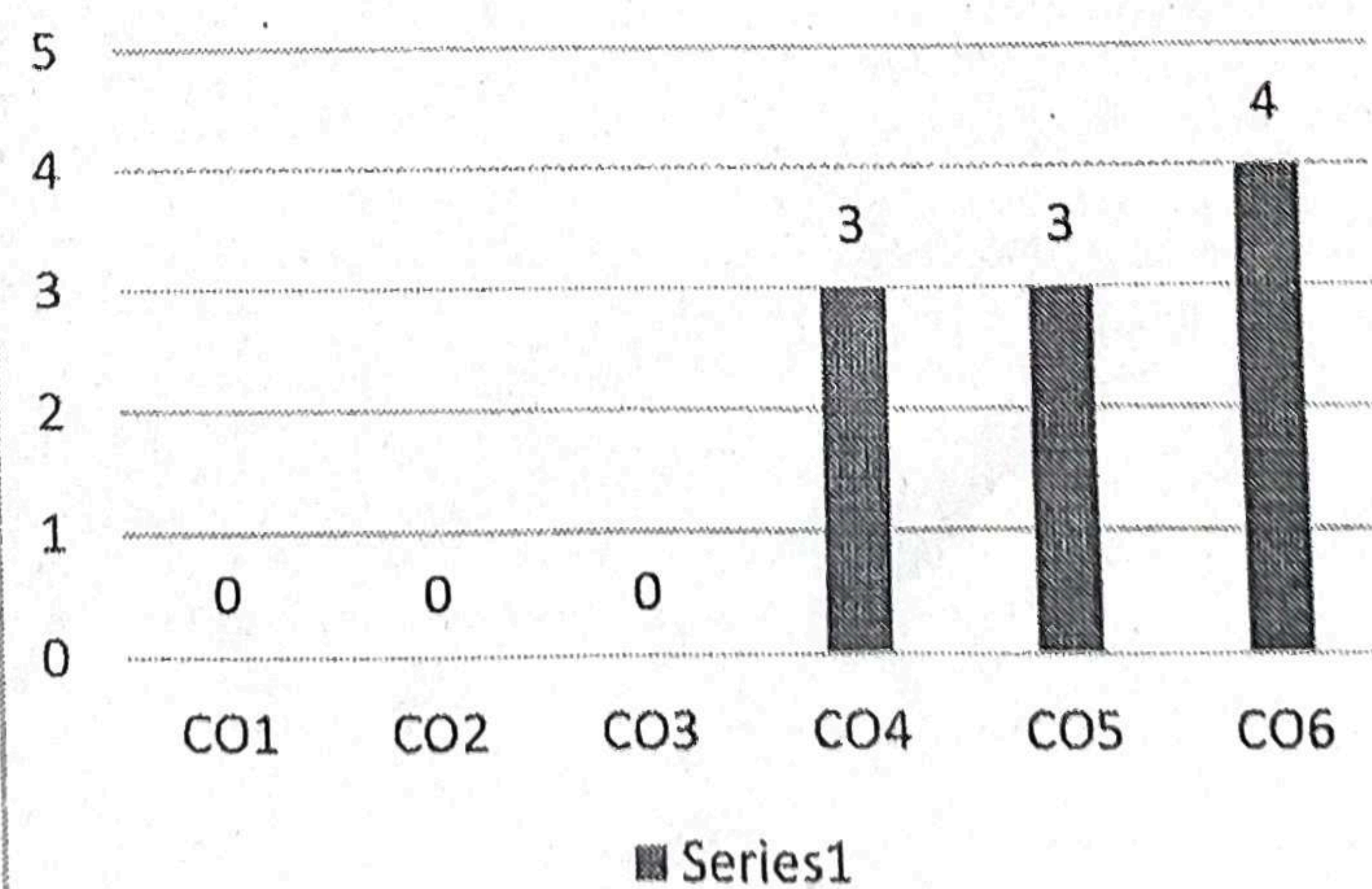
CO – Course Outcomes PO – Program Outcomes; PI Code – Performance Indicator Code

| Level | Marks | CO | Marks |
|--------------|-----------|--------------|-----------|
| Level1 | 3 | CO1 | 0 |
| Level2 | 3 | CO2 | 0 |
| Level3 | 0 | CO3 | 0 |
| Level4 | 4 | CO4 | 3 |
| Level5 | 0 | CO5 | 3 |
| Level6 | 0 | CO6 | 4 |
| Total | 10 | Total | 10 |

Bloom's Level wise Marks Distribution



Course Outcome wise Marks Distribution



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| S. No. | University Reg.No. | Student Name | First Unit Test Theory (30) | Second Unit Test Theory (30) | First Class Test Theory (10) | Second Class Test Theory (10) | Best One From Unit Test Theory (30) | Best One Form Class Test Theory (10) | Internal Marks Scheme | | | Total Internal Marks Theory (30) | End Sem Exam Marks Theory (70) | Total Marks Theory (100) |
|---|--------------------|--------------------|--------------------------------|---------------------------------|---------------------------------|----------------------------------|--|---|-----------------------|----------------------|-----------------------------|-------------------------------------|-----------------------------------|-----------------------------|
| | | | | | | | | | Unit Test(UT) 12 | Attendance(AT) 12 | Teacher Assessment(TA) 6 | | | |
| 1 | BSCS2016001 | AAKASH GANGWAR | 29 | 26 | 9 | 7 | 29 | 9 | 12 | 11 | 6 | 29 | 62 | 91 |
| 2 | BSCS2016014 | AASIF JAMAL | 12 | 12 | 0 | 0 | 12 | 0 | 5 | 1 | 6 | 12 | AB | 12 |
| 3 | BSCS2016009 | AISHWARYA MITTAL | 28 | 24 | 8 | 6 | 28 | 8 | 11 | 11 | 6 | 28 | 63 | 91 |
| 4 | BSCS2016005 | AJAY KUMAR GANGWAR | 23 | 11 | 6 | 5 | 23 | 6 | 9 | 8 | 6 | 23 | 48 | 71 |
| 5 | BSCS2016006 | AMAN GANDHI | 21 | AB | 5 | 3 | 21 | 5 | 8 | 7 | 6 | 21 | 58 | 79 |
| 6 | BSCS2016015 | AMAN VERMA | 21 | AB | 8 | 5 | 21 | 8 | 8 | 7 | 6 | 21 | 50 | 71 |
| 7 | BSCS2016002 | ASHISH GANGWAR | 12 | AB | 0 | 4 | 12 | 4 | 5 | 1 | 6 | 12 | 33 | 45 |
| 8 | BSCS2016007 | KM MANSI GUPTA | 24 | 14 | 6 | 3 | 24 | 6 | 10 | 8 | 6 | 24 | 49 | 73 |
| 12 | BSCS2016017 | KULDEEP | 15 | 2 | 0 | 4 | 15 | 4 | 6 | 3 | 6 | 15 | 30 | 45 |
| 15 | BSCS2016013 | MAYANK SRIVASTAVA | 20 | AB | 8 | 5 | 20 | 8 | 10 | 4 | 6 | 20 | 50 | 70 |
| 16 | BSCS2016012 | RAHUL MAURYA | 24 | 16 | 7 | 4 | 24 | 7 | 8 | 10 | 6 | 24 | 55 | 79 |
| 17 | BSCS2016011 | RAVI KUMAR | 20 | 9 | 7 | 4 | 20 | 7 | 8 | 6 | 6 | 20 | 42 | 62 |
| 18 | BSCS2016010 | SACHIN SAHU | 25 | 16 | 7 | 4 | 25 | 7 | 10 | 9 | 6 | 25 | 53 | 78 |
| 19 | BSCS2016004 | SAKSHI BORA | 19 | 11 | 8 | 7 | 19 | 8 | 8 | 5 | 6 | 19 | 24 | 43 |
| 20 | BSCS2016003 | SATVEER SINGH | 21 | 14 | 7 | 4 | 21 | 7 | 8 | 7 | 6 | 21 | 36 | 57 |
| 21 | LBCSS2017001 | SUSHMITA | 18 | AB | 6 | 3 | 18 | 6 | 7 | 5 | 6 | 18 | 43 | 61 |
| Students appeared for the examination | | | 16 | 11 | 16 | 16 | 16 | 16 | 6 | 6 | 16 | 16 | 15 | 16 |
| Target / satisfactory mark set as benchmark | | | 12 | 13 | 4 | 4 | 13 | 13 | 5 | 5 | 3 | 14 | 29 | 50 |
| Students scored above the target set | | | 16 | 6 | 13 | 6 | 16 | 13 | 6 | 6 | 16 | 14 | 14 | 12 |
| % Students scored above the target set | | | 100% | 55% | 81% | 38% | 100% | 81% | 100% | 100% | 100% | 88% | 93% | 75% |
| Attainment Level | | | 3 | 2 | 3 | 1 | 3 | 3 | 1 | 1 | 3 | 3 | 3 | 2 |

| | | | | | | | | | | | | |
|-----|---|---|---|---|---|---|-----|-----|---|---|---|---|
| CO1 | 3 | | 3 | | 3 | 3 | 1.2 | 1.2 | 3 | 3 | 3 | 2 |
| CO2 | 3 | | 3 | | 3 | 3 | 1.2 | 1.2 | 3 | 3 | 3 | 2 |
| CO3 | 3 | | 3 | | 3 | 3 | 1.2 | 1.2 | 3 | 3 | 3 | 2 |
| CO4 | 3 | 2 | | 1 | 3 | 3 | 1.2 | 1.2 | 3 | 3 | 3 | 2 |
| CO5 | | 2 | | 1 | 3 | 3 | 1.2 | 1.2 | 3 | 3 | 3 | 2 |
| CO6 | | 2 | | 1 | 3 | 3 | 1.2 | 1.2 | 3 | 3 | 3 | 2 |

| Rubric: | |
|------------|-------|
| % Students | Level |
| <50% | 1 |
| 50-75% | 2 |
| >75% | 3 |

| | |
|--------------------|------|
| Overall attainment | 2.00 |
|--------------------|------|

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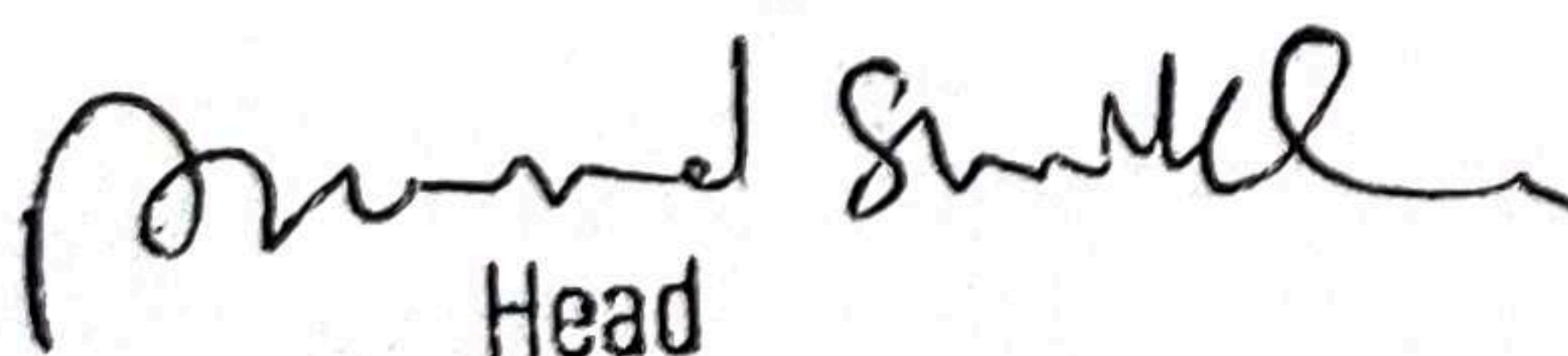
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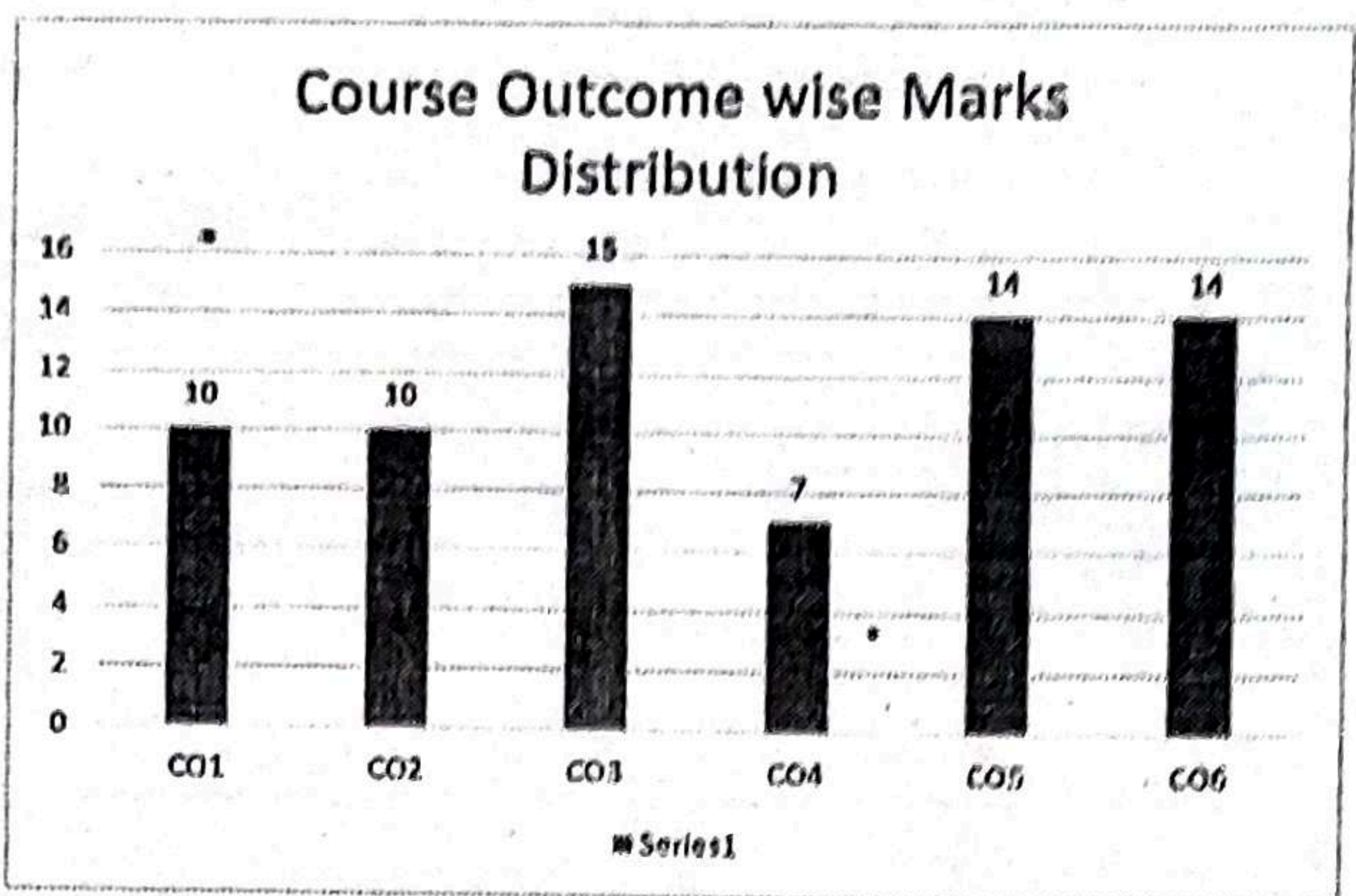
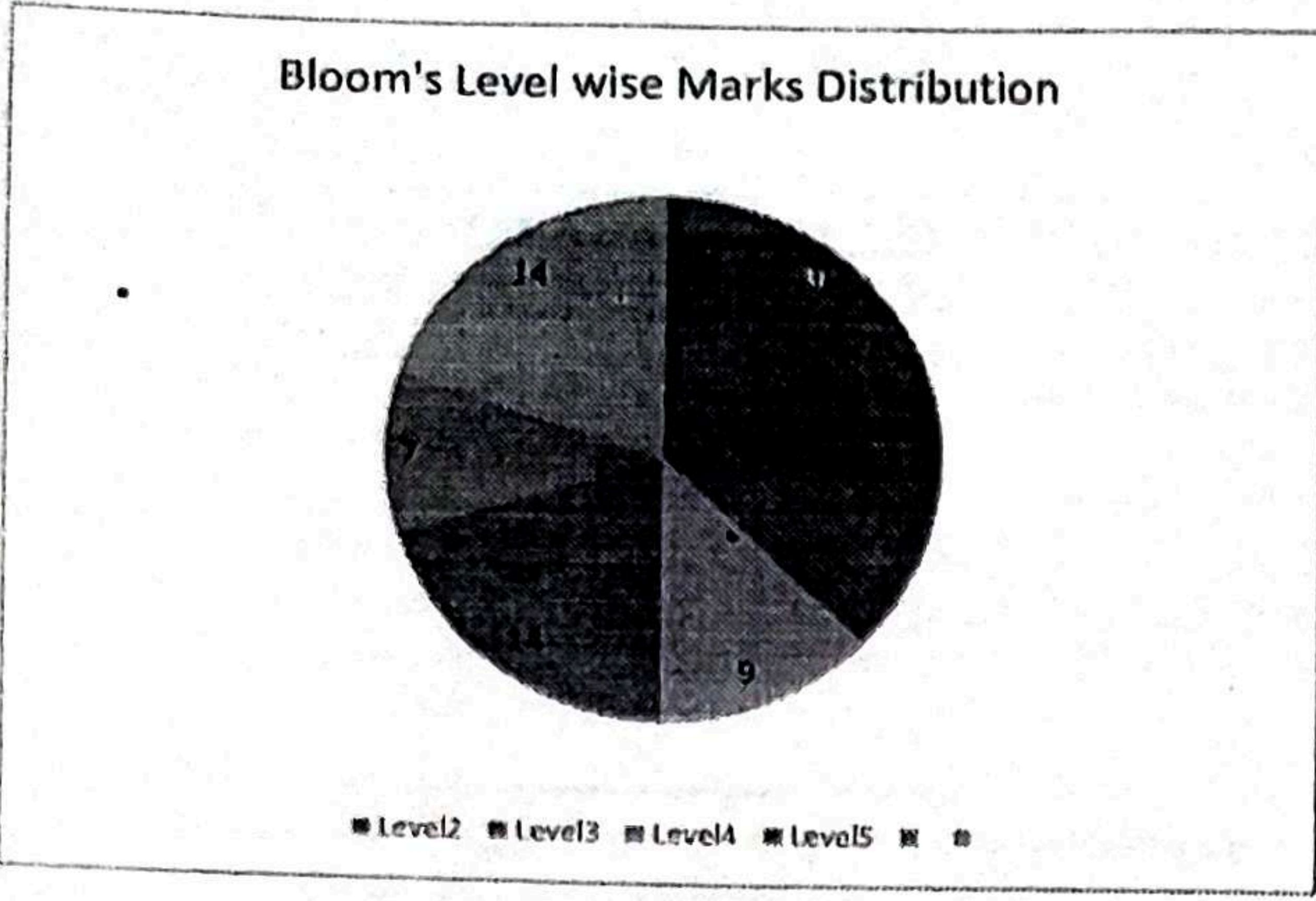
| Q.No | Questions | Marks (70) | CO | BL |
|-------|--|------------|-----|----|
| 1-I | Differentiate window and view port. | 01 | CO1 | L2 |
| 1-II | Mention two advantages of Computer Graphics. | 01 | CO2 | L1 |
| 1-III | List any 4 input devices used in Computer Graphics. | 01 | CO2 | L2 |
| 1-IV | Describe term Frame Buffer. | 01 | CO3 | L3 |
| 1-V | Differentiate term Computer Graphics and Image Processing. | 01 | CO2 | L1 |
| 1-VI | Describe term GUI. | 01 | CO1 | L1 |
| 1-VII | Mention the first decision parameter P_0 in Bresenham's Line drawing algorithm for $m < 1$ | 01 | CO1 | L1 |
| 2-I | Describe term Computer Graphics. | 01 | CO1 | L1 |
| 2-II | Mention the types of Computer Graphics. | 01 | CO1 | L1 |
| 2-III | List any 4 output devices used in Computer Graphics. | 01 | CO1 | L1 |
| 2-IV | Mention the disadvantages of DDA algorithm. | 01 | CO1 | L2 |
| 2-V | Define the Bloppy objects. | 01 | CO1 | L1 |
| 2-VI | Mention the 3-D scaling matrix. | 01 | CO1 | L3 |
| 2-VII | Describe term animation. | 01 | CO1 | L1 |
| 3-I | (a) Differentiate between Bresenham's and DDA line drawing algorithm. OR (b) Consider a raster system with a resolution of $1024 * 1024$. What is the size of raster (in bytes) needed to store 4 bits per pixel? How much storage is required if 8 bits per pixel are to be stored? | 7 | CO2 | L2 |
| 3-II | (a) Differentiate between Random scan displays and Raster scan displays. OR (b) A rectangular parallelepiped is given having length on x-axis, y-axis and z-axis as 3, 2 and 1 respectively. Perform a rotation by an angle -90° about x-axis and 90° about y-axis. | 7 | CO3 | L2 |
| 4-I | (a) What are the major application areas of Computer Graphics, explain in detail. OR (b) Write short notes on the following: i. Flat panel display ii. Plasma panel display | 7 | CO3 | L5 |
| 4-II | (a) Translate the square ABCD whose co-ordinates are A(0, 0), B(3, 0), C(3, 3) and D(0, 3) by 2 units in both direction and then scale it by 1.5 units in x-direction and 0.5 units in y-direction. OR (b) Explain the concept of projection with its types in detail. | 7 | CO4 | L3 |
| 5 | (a) Explain term Transformation and describe the possible transformation for an object in detail, with matrix representation. Find the matrix that represents rotation of an object by 45° about the origin. Also find out the new co-ordinates of the point P(2, -4) after the rotation. OR (b) Define term Polygon with its types and how will you represent it? Also mention polygon filling procedure for Boundary fill and flood fill for 4-connected pixels | 14 | CO5 | L4 |
| 6 | (a) Explain term Line clipping. Also explain Cohen-Sutherland algorithm for line clipping. Use the Cohen-Sutherland algorithm to clip line P1(70, 20) and P2(100, 10) against a window lower left hand corner (50, 10) and upper right hand corner (80, 40). OR (b) Write the Midpoint circle algorithm and using Midpoint circle algorithm plot a circle whose radius is 10 units | 14 | CO6 | L6 |

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|---|-----------|--------------|-----------|
| Level | Marks | CO | Marks |
| Level1 | 9 | CO1 | 10 |
| Level2 | 17 | CO2 | 10 |
| Level3 | 9 | CO3 | 15 |
| Level4 | 14 | CO4 | 7 |
| Level5 | 7 | CO5 | 14 |
| Level6 | 14 | CO6 | 14 |
| Total | 70 | Total | 70 |


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 Head
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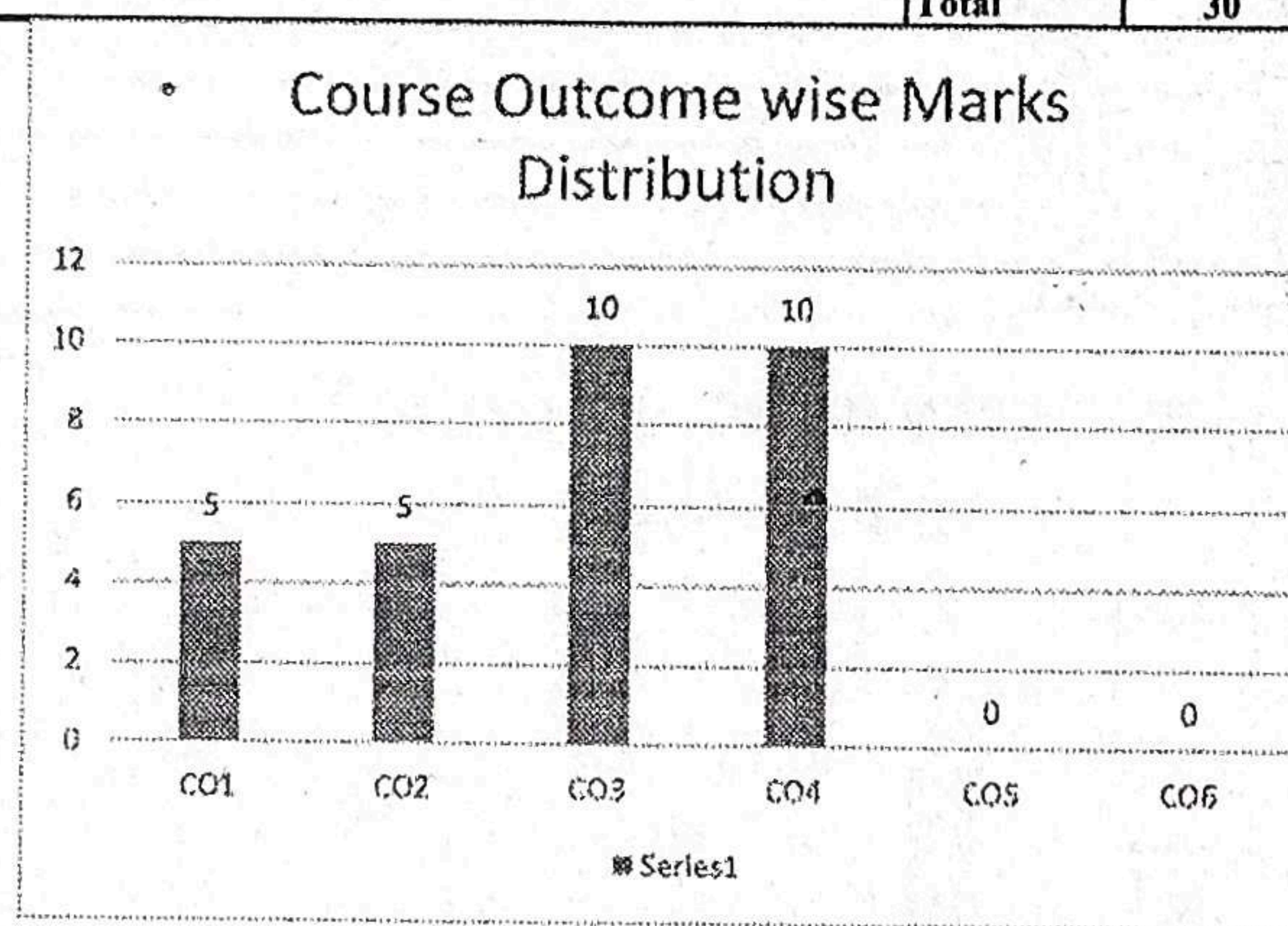
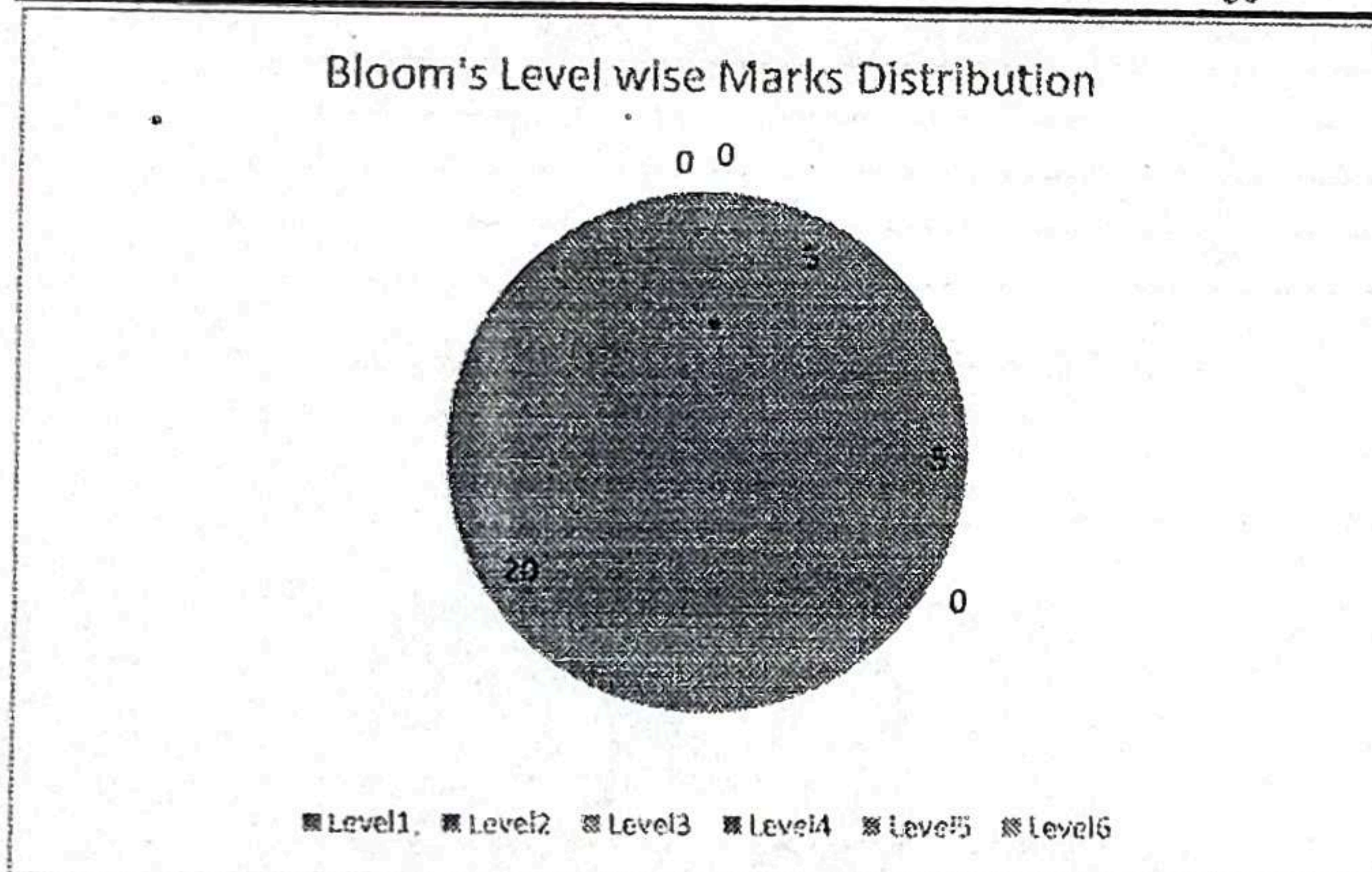
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| Q.No | Questions | Marks (30) | CO | BL |
|------|--|------------|-----|----|
| 1 | What is Computer Graphics? What are the different applications of computer graphics? | 05 | CO1 | L1 |
| 2 | Give the difference between raster scan display and random scan display? | 05 | CO2 | L2 |
| 3 | Explain the interactive input and output devices used in computer graphics? | 00 | CO1 | L1 |
| 4 | (a) Consider the line from (5,5) to (13,9). Use the Bresenham's algorithm to rasterizing the line. (b) Consider a raster system with resolution of 1024 by 1024. What is the size of the raster (in bytes) needed to store 4 bits per pixel? How much storage is required if 8 bits per pixel are to be stored? | 10 | CO3 | L4 |
| 5 | a) Write the digital differential analyzer (DDA) line drawing algorithm. Also give its advantages and disadvantages? simple DDA algorithm to rasterizing this line and plot the line. (b) Consider a line from (0, 0) to (6, 7). Use the | | CO3 | L6 |
| 6 | (a) Write the midpoint circle algorithm. (b) Using Bresenham's algorithm plot a circle whose radius =3 and Center = (0, 0). | 10 | CO4 | L4 |
| 7 | (a) Write the Bresenham's circle algorithm. (b) Using midpoint, plot a circle whose radius =10. | | CO3 | L4 |

BL – Bloom's Taxonomy Levels
(1- Remembering, 2- Understanding, 3 – Applying, 4 – Analysing, 5 – Evaluating, 6 - Creating)
CO – Course Outcomes PO – Program Outcomes; PI Code – Performance Indicator Code

| Level | Marks | CO | Marks |
|--------------|-----------|--------------|-----------|
| Level1 | 5 | CO1 | 5 |
| Level2 | 5 | CO2 | 5 |
| Level3 | 0 | CO3 | 10 |
| Level4 | 20 | CO4 | 10 |
| Level5 | 0 | CO5 | 0 |
| Level6 | 0 | CO6 | 0 |
| Total | 30 | Total | 30 |



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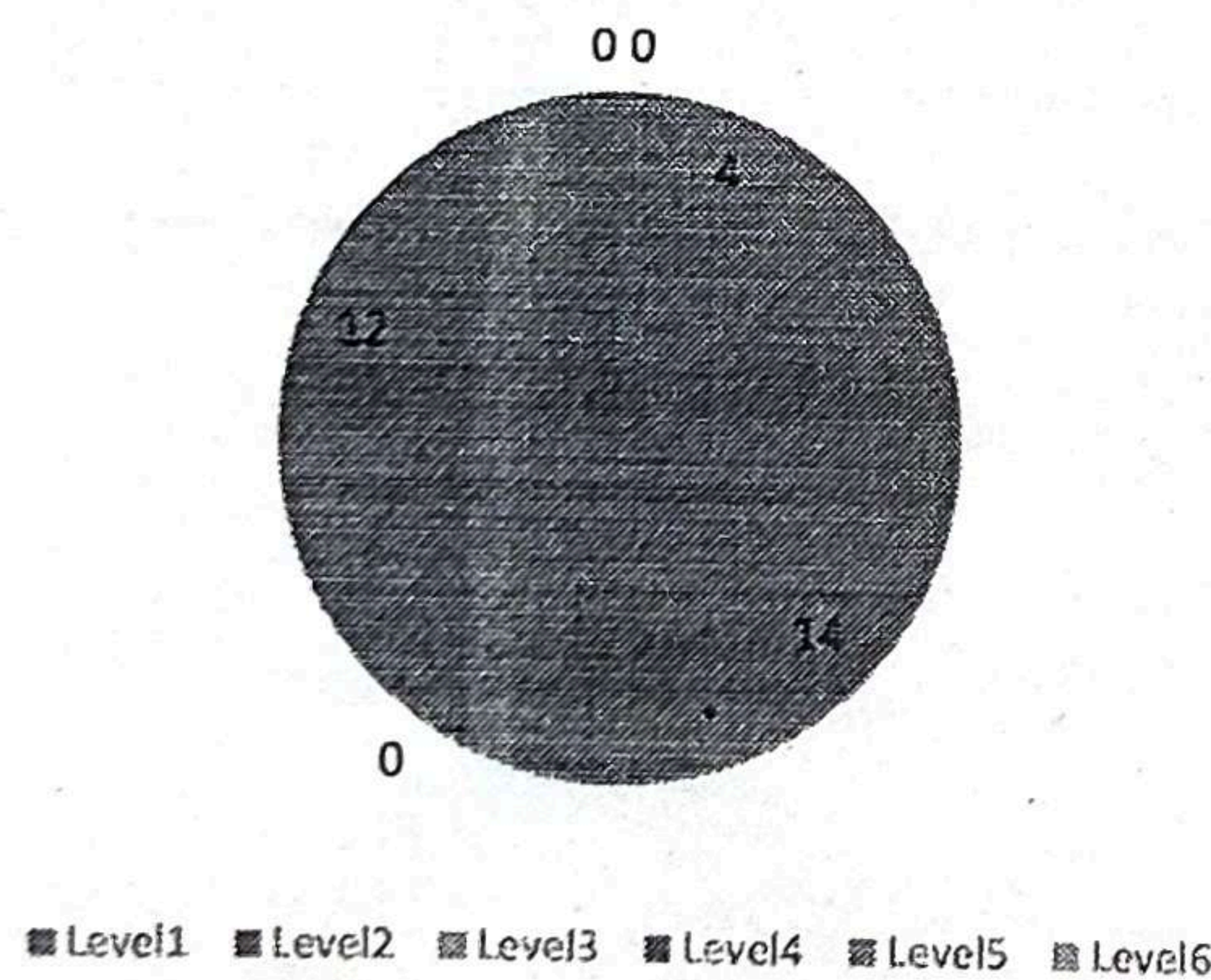
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| Q.No | Questions | Marks (30) | CO | BL |
|-------|---|------------|-----|----|
| 1-I | Describe term Computer Graphics. | 01 | CO4 | L1 |
| 1-II | Mention the types of Computer Graphics. | 01 | CO4 | L1 |
| 1-III | List any 4 output devices used in Computer Graphics. | 01 | CO4 | L2 |
| 1-IV | Mention the disadvantages of DDA algorithm. | 01 | CO4 | L1 |
| 1-V | Define the Bloppy objects | 01 | CO4 | L1 |
| 2 | Explain Computer Image Processing . Differentiate between GUI and CLI OR | 05 | CO4 | L2 |
| 3 | (a) Differentiate between Random scan displays and Raster scan displays. OR (b) A rectangular parallelepiped is given having length on x-axis, y-axis and z-axis as 3, 2 and 1 respectively. Perform a rotation by an angle -90° about x-axis and 90° about y-axis | 08 | CO5 | L2 |
| 4 | Explain term Transformation and describe the possible transformation for an object in detail, with matrix representation. Find the matrix that represents rotation of an object by 45° about the origin. Also find out the new co-ordinates of the point P(2, -4) after the rotation. OR (b) Define term Polygon with its types and how will you represent it? Also mention polygon filling procedure for Boundary fill and flood fill for 4-connected pixels | 12 | CO6 | L4 |

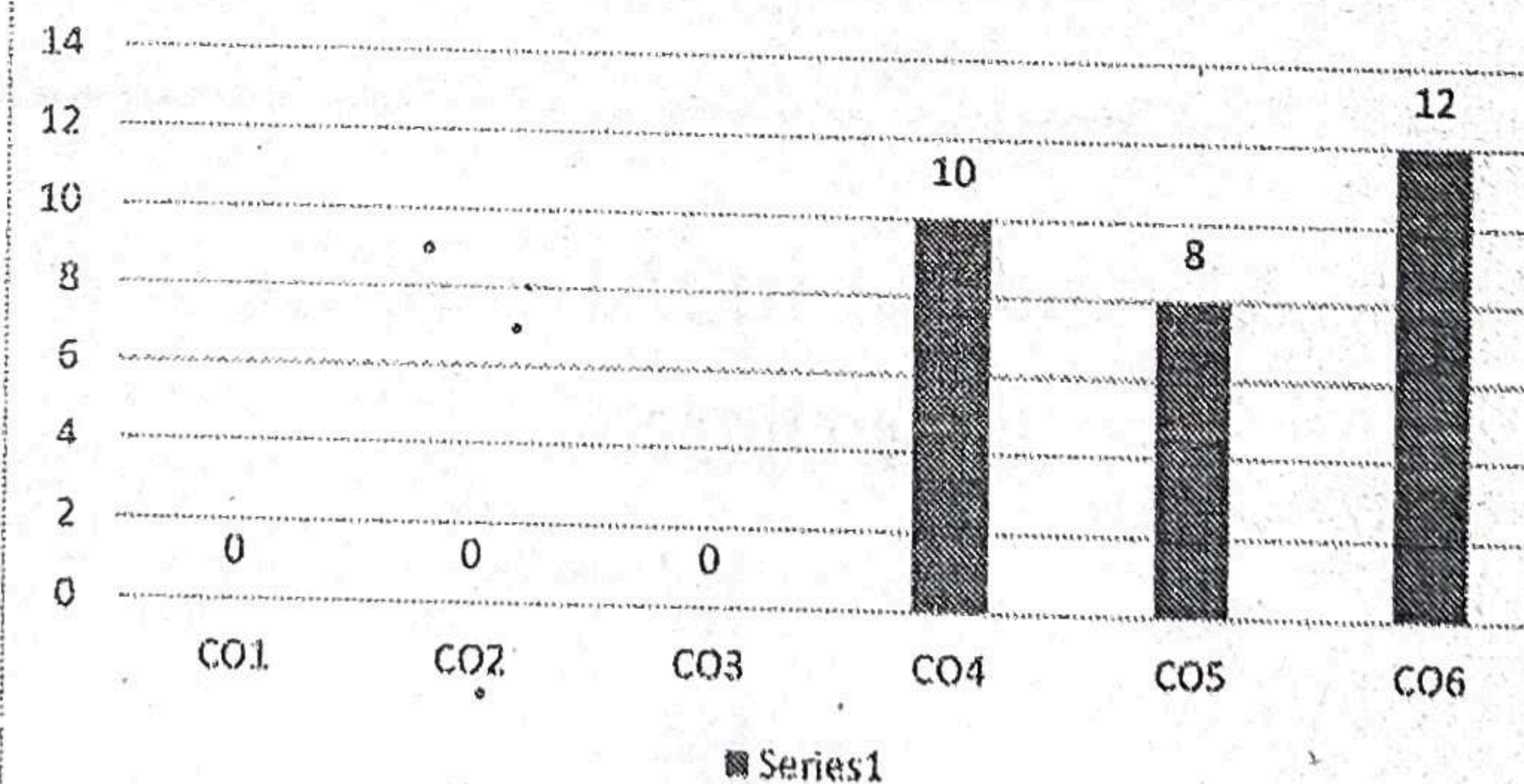
BL – Bloom's Taxonomy Levels
(1- Remembering, 2- Understanding, 3 – Applying, 4 – Analysing, 5 – Evaluating, 6 - Creating)
CO – Course Outcomes PO – Program Outcomes; PI Code – Performance Indicator Code

| Level | Marks | CO | Marks |
|--------------|-----------|--------------|-----------|
| Level1 | 4 | CO1 | 0 |
| Level2 | 14 | CO2 | 0 |
| Level3 | 0 | CO3 | 0 |
| Level4 | 12 | CO4 | 10 |
| Level5 | 0 | CO5 | 8 |
| Level6 | 0 | CO6 | 12 |
| Total | 30 | Total | 30 |

Bloom's Level wise Marks Distribution



Course Outcome wise Marks Distribution



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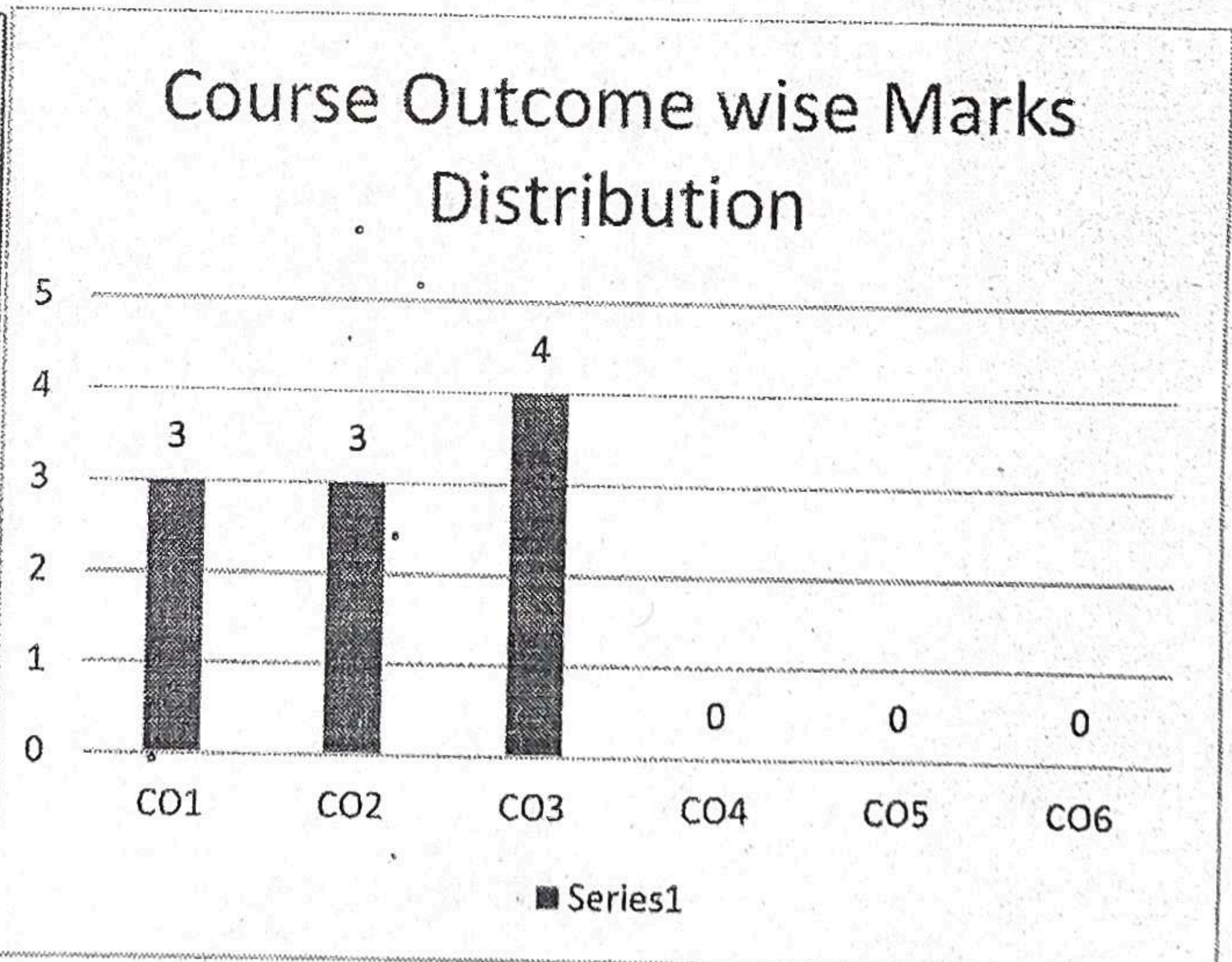
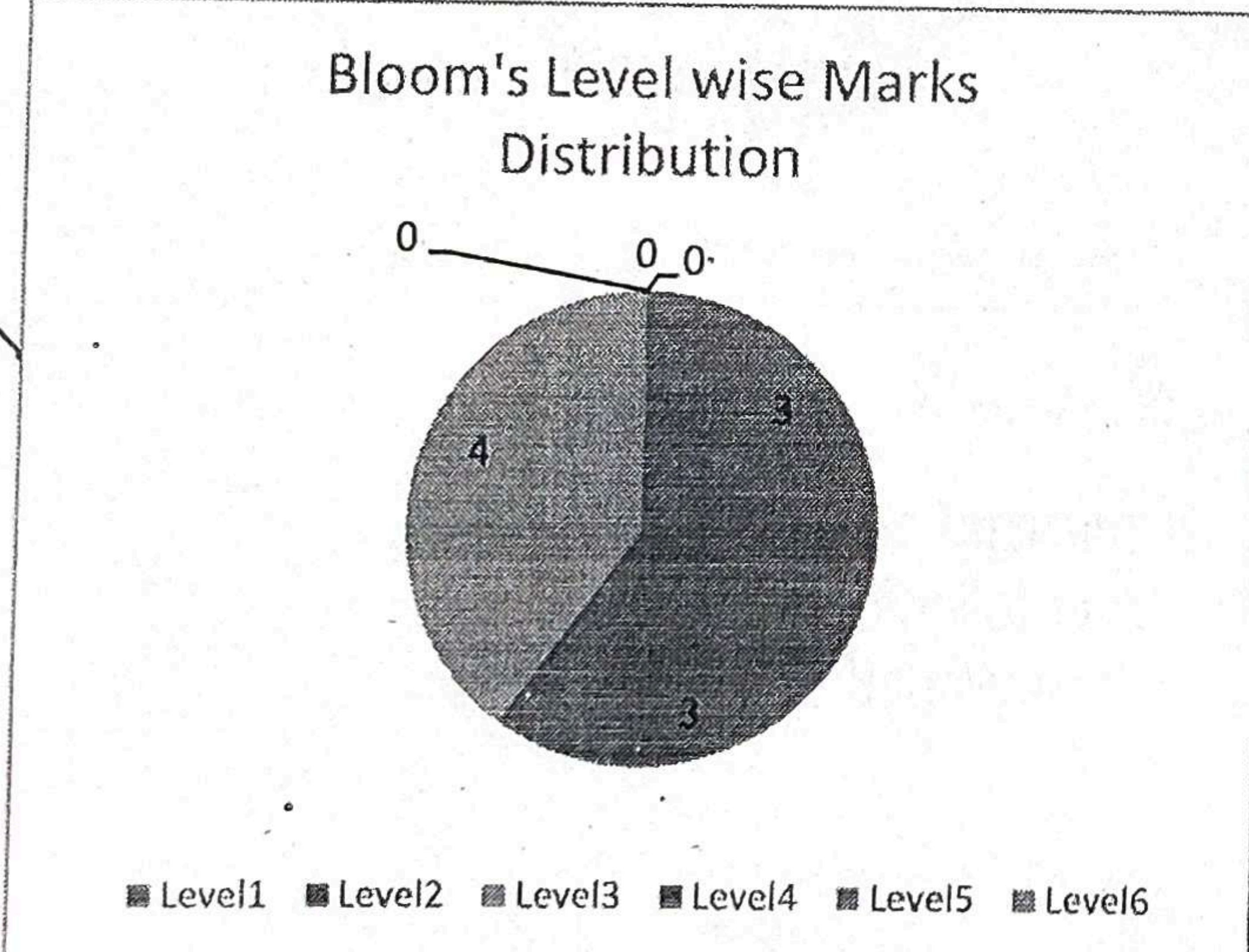
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| Q.No | Questions | Marks (10) | CO | BL |
|------|---|------------|-----|----|
| 1 | Differentiate window and view port. | 03 | CO1 | L2 |
| 2 | Mention two advantages of Computer Graphics. | 03 | CO2 | L1 |
| 3 | List any 4 input devices used in Computer Graphics. | 04 | CO3 | L3 |
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BL – Bloom’s Taxonomy Levels
(1- Remembering, 2- Understanding, 3 – Applying, 4 – Analysing, 5 – Evaluating, 6 - Creating)
CO – Course Outcomes PO – Program Outcomes; PI Code – Performance Indicator Code

| Level | Marks | CO | Marks |
|--------------|-----------|--------------|-----------|
| Level1 | 3 | CO1 | 3 |
| Level2 | 3 | CO2 | 3 |
| Level3 | 4 | CO3 | 4 |
| Level4 | 0 | CO4 | 0 |
| Level5 | 0 | CO5 | 0 |
| Level6 | 0 | CO6 | 0 |
| Total | 10 | Total | 10 |



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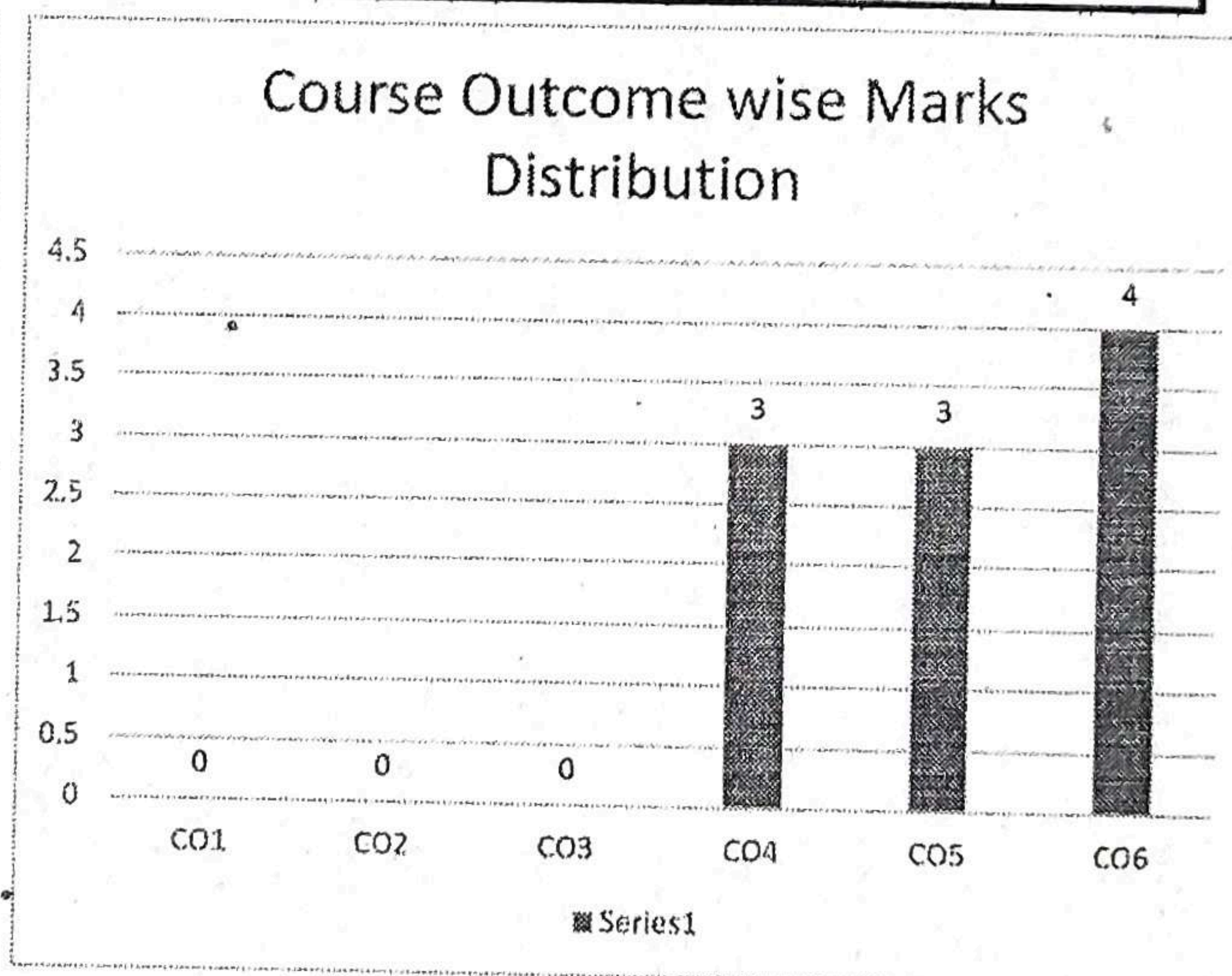
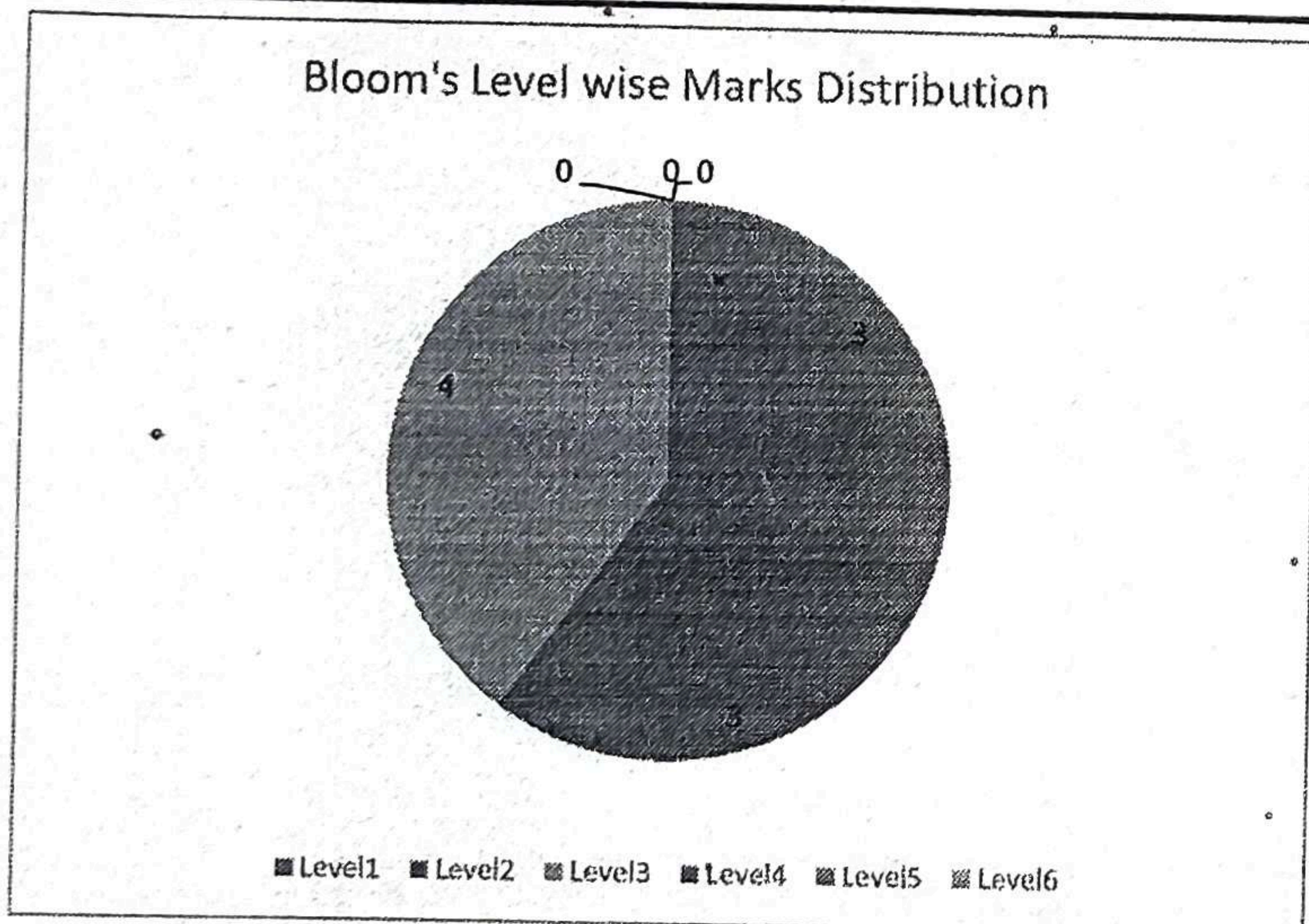
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| Q.No | Questions | Marks (10) | CO | BL |
|------|--|------------|-----|----|
| 1 | Mention the first decision parameter P_0 in Bresenham's Line drawing algorithm for $m < 1$ | 03 | CO4 | L1 |
| 2 | Describe term Computer Graphics. | 03 | CO5 | L2 |
| 3 | Mention the types of Computer Graphics. | 04 | CO6 | L3 |
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BL – Bloom's Taxonomy Levels
(1- Remembering, 2- Understanding, 3 – Applying, 4 – Analysing, 5 – Evaluating, 6 - Creating)
CO – Course Outcomes PO – Program Outcomes; PI Code – Performance Indicator Code

| Level | Marks | CO | Marks |
|--------------|-----------|--------------|-----------|
| Level1 | 3 | CO1 | 0 |
| Level2 | 3 | CO2 | 0 |
| Level3 | 4 | CO3 | 0 |
| Level4 | 0 | CO4 | 3 |
| Level5 | 0 | CO5 | 3 |
| Level6 | 0 | CO6 | 4 |
| Total | 10 | Total | 10 |



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Session :2017-2018 Course :B.Sc Computer Science Semester :4 ExamType :Regular(Even)

| Sr. No | Student Id | RollNo | Name | CSH401 | CSH402 | CSH403 | CSH404 | CSH405 | CSH451 | CSH452 | TotalObtain | TotalMark | % | SGPA Pts | CarryOvers | TotalBacks | Status |
|--------|-------------|------------|--------------------|--------------|---------------------|---------------------|-------------------|-------------------|-------------------|-------------------|-------------|-----------|-------|--|------------|------------|--------|
| 1 | BSCS2016001 | 1610205001 | AAKASH GANGWAR | 53 27 80 100 | 62 29 91 100 | 56 28 84 100 | 30 14 44 50 | 30 15 45 50 | 32 14 46 50 | 32 13 45 50 | 435 | 500 | 87.00 | | 0 | | PASS |
| 2 | bscs2016014 | 1610205002 | AAsif Jamal | 33 12 45 100 | AB 12 12 100 | CSH403 33 12 45 100 | CSH404 17 6 23 50 | CSH405 25 8 33 50 | CSH451 AB 7 7 50 | CSH452 AB 7 7 50 | 172 | 500 | 34.40 | CSH301, CSH302, CSH303, CSH304, CSH402, CSH451, CSH452 | 7 | | FAIL |
| 3 | BSCS2016009 | 1610205003 | AISHWARYA MITTAL | 58 27 85 100 | 63 28 91 100 | 51 28 79 100 | 30 14 44 50 | 32 12 44 50 | 31 14 45 50 | 31 13 44 50 | 432 | 500 | 86.40 | | 0 | | PASS |
| 4 | BSCS2016005 | 1610205004 | AJAY KUMAR GANGWAR | 40 24 64 100 | 48 23 71 100 | 19 22 41 100 | 20 10 30 50 | 18 12 30 50 | 31 13 44 50 | 29 12 41 50 | 321 | 500 | 64.20 | | 0 | | PASS |
| 5 | BSCS2016006 | 1610205005 | AMAN GANDHI | 44 23 67 100 | 58 21 79 100 | 50 23 73 100 | 26 11 37 50 | 31 12 43 50 | 30 13 43 50 | 30 12 42 50 | 384 | 500 | 76.80 | | 0 | | PASS |
| 6 | bscs2016015 | 1610205006 | Aman Verma | 40 19 59 100 | 50 21 71 100 | 50 21 71 100 | 26 10 36 50 | 26 11 37 50 | 30 12 42 50 | 28 11 39 50 | 355 | 500 | 71.00 | | 0 | | PASS |
| 7 | BSCS2016002 | 1610205007 | ASHISH GANGWAR | 33 12 45 100 | CSH402 33 12 45 100 | CSH403 33 12 45 100 | CSH404 17 6 23 50 | CSH405 23 6 29 50 | CSH451 21 8 29 50 | CSH452 21 8 29 50 | 245 | 500 | 49.00 | CSH301, CSH302, CSH303, CSH304 | 4 | | PCP |
| 8 | BSCS2016007 | 1610205009 | KM MANSHI GUPTA | 44 23 67 100 | 49 24 73 100 | 54 24 78 100 | 27 12 39 50 | 32 14 46 50 | 27 12 39 50 | 31 11 42 50 | 384 | 500 | 76.80 | | 0 | | PASS |

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|----|--------------|------------|----------------------|------------------------------|------------------------------|------------------------------|-----------------------------|-----------------------------|-----------------------------|-----------------------------|-----|-----|-------|---|---|---|------|-----|
| 9 | BSCS2016017 | 1610205010 | KULDEEP | CSH401 20 15 35 100 | CSH402 30 15 45 100 | CSH403 14 9 23 50 | CSH404 22 12 34 50 | CSH405 24 10 34 50 | CSH451 24 10 34 50 | CSH452 25 9 34 50 | 222 | 500 | 44.40 | CSH301, CSH303, CSH401, CSH403 | 4 | 0 | PASS | PCP |
| 10 | bscs2016013 | 1610205011 | Mayank Srivastava | CSH401 41 17 58 100 | CSH402 50 20 70 100 | CSH403 57 21 78 100 | CSH404 24 11 35 50 | CSH405 30 13 43 50 | CSH451 24 10 34 50 | CSH452 24 9 33 50 | 351 | 500 | 70.20 | | 0 | | PASS | |
| 11 | bscs2016012 | 1610205012 | Rahul Maurya | CSH401 43 22 65 100 | CSH402 55 24 79 100 | CSH403 53 25 78 100 | CSH404 22 12 34 50 | CSH405 29 14 43 50 | CSH451 26 12 38 50 | CSH452 29 11 40 50 | 377 | 500 | 75.40 | | 0 | | PASS | |
| 12 | bscs2016011 | 1610205013 | Ravi Kumar | CSH401 27 18 45 100 | CSH402 42 20 62 100 | CSH403 29 21 50 100 | CSH404 16 9 25 50 | CSH405 25 11 36 50 | CSH451 24 11 35 50 | CSH452 28 10 38 50 | 291 | 500 | 58.20 | CSH301, CSH302, CSH303 | 3 | | | PCP |
| 13 | bscs2016010 | 1610205014 | Sachin Sahu | CSH401 41 23 64 100 | CSH402 53 25 78 100 | CSH403 55 27 82 100 | CSH404 25 13 38 50 | CSH405 30 14 44 50 | CSH451 26 12 38 50 | CSH452 29 11 40 50 | 384 | 500 | 76.80 | | 0 | | PASS | |
| 14 | BSCS2016004 | 1610205015 | SAKSHI BORA | CSH401 48 15 63 100 | CSH402 24 19 43 100 | CSH403 63 22 85 100 | CSH404 26 10 36 50 | CSH405 34 12 46 50 | CSH451 30 13 43 50 | CSH452 31 12 43 50 | 359 | 500 | 71.80 | | 0 | | PASS | |
| 15 | BSCS2016003 | 1610205016 | SATVEER SINGH | CSH401 38 20 58 100 | CSH402 36 21 57 100 | CSH403 44 19 63 100 | CSH404 21 9 30 50 | CSH405 23 11 34 50 | CSH451 26 11 37 50 | CSH452 27 10 37 50 | 316 | 500 | 63.20 | | 0 | | PASS | |
| 16 | LBCSS2017001 | 1750203022 | SUSHMITA | CSH401 36 19 55 100 | CSH402 43 18 61 100 | CSH403 53 20 73 100 | CSH404 27 10 37 50 | CSH405 31 12 43 50 | CSH451 29 12 41 50 | CSH452 30 11 41 50 | 351 | 500 | 70.20 | | 0 | | PASS | |

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