# B.VOC

# In

# HARDWARE AND NETWORKING (UGC)

## Program Learning Outcomes:

PLO1: Learn the proper techniques of maintenance of hardware and networking devices

PLO2: Study the science of hardware and networking

PLO3: Diagnose and repair all major problems regarding hardware, PC peripheral devices

PLO4: Build your own book of business

PLO5: Demonstrate a comprehensive understanding of computer hardware components, their functions, and troubleshooting techniques.

PLO6: Acquire in-depth knowledge of networking principles, protocols, and architectures.

PLO7: Develop the ability to design, implement, and manage network infrastructure, including cabling, routers, and switches.

PLO8: Gain proficiency in installing, configuring, and troubleshooting various operating systems.

PLO9**:** Acquire skills in server administration, including hardware and software management.

TOTAL DURATION OF COURSE: 3 Years

✓ After completion of Year-1 Diploma is awarded.

✓ After completion of Year-2 Advance Diploma is awarded.

✓ After completion of Year-3 B.VOC Degree is awarded.

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# Year - 1 - Diploma (SEMESTER - I)
# Corresponding NSQF Level 5

| Course | Component | Theory / Practical / Sessional | Internal (Theory/Skill) | External (Theory/Skill) | Internal (Practical) | External (Practical / Sessional) | Credit | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | L | T | P |
| UGEN - 101 ENGLISH LANGUAGE AND COMMUNICATIVE SKILLS | Generic | Theory | 30 | 70 | - | - | 3 | 1 | - |
| UHWNV-101 BASIC ELECTRONICS | Skill | Theory | 30 | 70 | - | - | 3 | 1 | - |
| UHWNV-102 DIGITAL ELECTRONICS | Skill | Theory | 30 | 70 | - | - | 3 | 1 | - |
| UHWNV-191 BASIC ELECTRONICS LAB | Skill | Practical | - | - | 40 | 60 | - | - | 3 |
| UHWNV-192 DIGITAL ELECTRONICS LAB | Skill | Practical | - | - | 40 | 60 | - | - | 3 |
| UHWNV-193 PRACTICAL ON COMPUTER COMPONENTS IDENTIFICATION AND TESTING | Skill | Practical | - | - | 40 | 60 | - | - | 4 |
| UGEN – 181 ENGLISH LANGUAGE LAB | Generic | Sessional | - | - | - | 100 | - | - | 2 |
| UGEN - 182 COMPUTER FUNDAMENTALS & IT | Generic | Sessional | - | - | - | 100 | - | - | 4 |

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## Year - 1 - Diploma (SEMESTER - II)
## Corresponding NSQF Level 5

| Course | Component | Theory / Practical / Sessional | Internal (Theory/Skill) | External (Theory/Skill) | Internal (Practical) | External (Practical / Sessional) | Credit L | T | P |
|---|---|---|---|---|---|---|---|---|---|
| UHWNV-201 PERSONAL COMPUTING SOFTWARE | Skill | Theory | 30 | 70 | - | - | 3 | 1 | - |
| UHWNV-202 COMPUTER HARDWARE, PC ASSEMBLING & TROUBLE SHOOTING | Skill | Theory | 30 | 70 | - | - | 3 | 1 | - |
| UHWNV-291 PERSONAL COMPUTING SOFTWARE LAB | Skill | Practical | - | - | 40 | 60 | - | - | 3 |
| UHWNV-292 COMPUTER HARDWARE, PC ASSEMBLING & TROUBLE SHOOTING LAB | Skill | Practical | - | - | 40 | 60 | - | - | 3 |
| UHWNV-293 PRACTICAL ON LAPTOP TROUBLE SHOOTING | Skill | Practical | - | - | 40 | 60 | - | - | 4 |
| UGEN - 281 SOFT SKILL & PERSONALITY DEVELOPMENT | Generic | Sessional | - | - | - | 100 | - | - | **4** |
| UGEN - 282 BUSINESS ANALYSIS: ENVIRONMENT, SALES & MARKETING | Generic | Sessional | - | - | - | 100 | - | - | 4 |
| UHWNV - 281 ON JOB TRAINING | Skill | Sessional | - | - | - | 100 | - | - | 6 |

## Year - 2 - Advanced Diploma (SEMESTER - III)

## Corresponding NSQF Level 6

| Course | Component | Theory / Practical / Sessional | Internal (Theory/Skill) | External (Theory/Skill) | Internal (Practical) | External (Practical / Sessional) | Credit L | T | P |
|---|---|---|---|---|---|---|---|---|---|
| UHWNV-301 COMPUTER PERIPHERAL AND DEVICES | Skill | Theory | 30 | 70 | - | - | 3 | 1 | - |
| UHWNV-302 NETWORK FUNDAMENTALS | Skill | Theory | 30 | 70 | - | - | 3 | 1 | - |
| UHWNV-391 COMPUTER PERIPHERAL AND DEVICES LAB | Skill | Practical | - | - | 40 | 60 | - | - | 4 |
| UHWNV-392 NETWORK FUNDAMENTALS LAB | Skill | Practical | - | - | 40 | 60 | - | - | **4** |
| UHWNV-393 PRACTICAL ON NETWORKING | Skill | Practical | - | - | 40 | 60 | - | - | 4 |
| UGEN - 381 VALUE EDUCATION & HUMAN RIGHTS | Generic | Sessional | - | - | - | 100 | - | - | **4** |
| UGEN - 382 BASIC ACCOUNTING | Generic | Sessional | - | - | - | 100 | - | - | **4** |

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# Year - 2 - Advanced Diploma (SEMESTER - IV)

# Corresponding NSQF Level 6

| Course | Component | Theory / Practical / Sessional | Internal (Theory/Skill) | External (Theory/Skill) | Internal (Practical) | External (Practical / Sessional) | Credit | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | L | T | P |
| UHWNV-401 WINDOWS SERVER ADMINISTRATION | Skill | Theory | 30 | 70 | - | - | 3 | 1 | - |
| UHWNV-402 SWITCHING AND ROUTING | Skill | Theory | 30 | 70 | - | - | 3 | 1 | - |
| UHWNV-491 WINDOWS SERVER ADMINISTRATION LAB | Skill | Practical | - | - | 40 | 60 | - | - | 3 |
| UHWNV-492 SWITCHING AND ROUTING LAB | Skill | Practical | - | - | 40 | 60 | - | - | 3 |
| UHWNV-493 PRACTICAL ON ROUTING CONFIGURATION & NETWORK CONNECTIVITY | Skill | Practical | - | - | 40 | 60 | - | - | 4 |
| UGEN - 481 ENVIRONMENTAL STUDIES | Generic | Sessional | - | - | - | 100 | - | - | 4 |
| UGEN - 482 QUALITY MANAGEMENT | Generic | Sessional | - | - | - | 100 | - | - | 4 |
| UHWNV – 481 ON JOB TRAINING | Skill | Sessional | - | - | - | 100 | - | - | 6 |

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## Year - 3 - Degree (SEMESTER - V)

## Corresponding NSQF Level 7

| Course | Component | Theory / Practical / Sessional | Internal (Theory/Skill) | External (Theory/Skill) | Internal (Practical) | External (Practical / Sessional) | Credit L | T | P |
|---|---|---|---|---|---|---|---|---|---|
| UHWNV-501 <br><br> LINUX OPERATING SYSTEM | Skill | Theory | 30 | 70 | - | - | 3 | 1 | - |
| UHWNV-502 <br><br> NETWORK ADMINISTRATION & TROUBLE SHOOTING | Skill | Theory | 30 | 70 | - | - | 3 | 1 | - |
| UHWNV-591 <br><br> LINUX OPERATING SYSTEM LAB | Skill | Practical | - | - | 40 | 60 | - | - | 4 |
| UHWNV-592 <br><br> NETWORK ADMINISTRATION & TROUBLE SHOOTING LAB | Skill | Practical | - | - | 40 | 60 | - | - | 4 |
| UHWNV-593 <br><br> PRACTICAL ON SWITCHING CONFIGURATION & NETWORK CONNECTIVITY | Skill | Practical | - | - | 40 | 60 | - | - | 6 |
| UGEN - 581 <br><br> INDIAN ECONOMY & SOCIAL CHANGES | Generic | Sessional | - | - | - | 100 | - | - | 4 |
| UGEN - 582 <br><br> RESEARCH METHODOLOGY | Generic | Sessional | - | - | - | 100 | - | - | 4 |

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# Year - 3 - Degree (SEMESTER - VI)

# Corresponding NSQF Level 7

| Course | Component | Theory / Practical / Sessional | Internal (Theory) | External (Theory) | Internal (Practical) | External (Practical / Sessional) | Credit | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | L | T | P |
| UGEN - 681<br>GENERAL HUMAN PSYCHOLOGY & HR MANAGEMENT | Generic | Sessional | - | - | - | 100 | - | - | 4 |
| UGEN - 682<br>ENTREPRENEURSHIP DEVELOPMENT PROGRAMME | Generic | Sessional | - | - | - | 100 | - | - | 4 |
| UHWNV - 681<br>INDUSTRIAL TRAINING | Skill | Sessional | - | - | - | 100 | - | - | 14 |
| UHWNV - 691<br>MAJOR PROJECT | Skill | Practical | - | - | 40 | 60 | - | - | 8 |