

NOTIFICATION

No. 99 / 2017

Date: 3/08/2017

Subject : Introduction of new syllabi for Diploma & Advanced Diploma courses in Computer Hardware and Networking under career oriented programme, from the session 2017-18.

It is notified for general information of all concerned that the authorities of the University have introduced new syllabi for Diploma & Advance Diploma courses in Computer Hardware and Networking from the session 2017-18 as given in Appendix-A & B respectively.

It is further notified that, the eligibility criteria and other details along with the Scheme of Examinations shall be as provided under Ordinance No. 47/2005, Regulation 38 of 2005.

Sd/-
I/c Registrar
Sant Gadge Baba Amravati University

Appendix-A

**SYLLABUS PRESCRIBED FOR DIPLOMA COURSE IN COMPUTER
HARDWARE AND NETWORKING**

1. Theory (12 Credits)

Unit-I : (03 Credits)

Transmission Media and Topologies

Media types: Twisted pair cable, Coaxial cable, Fiber Optics cable, Cables and Connectors, Physical and logical topologies, Bus, Star, Ring, tree and Mesh topologies, Ethernet

Unit-II : (03 Credits)

Network Hardware and Components

Concept of Server, client, Network Interface Card, functions of NIC, Crimping tools, Color standards for Straight crimping and Cross crimping, Repeaters, Hub, Switches, Routers, Bridges, gateway, Modem.

Unit-III : (03 Credits)

Microcontroller

Microcontroller Introduction, Difference between Microprocessor and Microcontroller, block diagram of microcontroller, CPU, registers, flags, PSW, PC, Data Pointer, SFR, SP, Internal RAM/ROM, External memory, I/O ports, counter & timers, interrupts.

8051 Interfacing & Application, Basics of serial communication, interfacing with RS-232C, SCON and PCON registers, interfacing a DAC / ADC

Unit-IV: (03 Credits)

Internet

Concept of Internet, Internet Service Provider, Search Engines, Concept of Fax and E-mail, Wi-Fi, Internet Searching: Finding Specific Topics, downloading softwares and device drivers.

2. Practical: Minimum 12 Experiments to be completed as per syllabus.

3. Skill Work (08 Credits)

Field Work / Project Writing / Training: (The proof of this should be submitted during examination, for example: Work experience certificate / Dissertation / Project Report, etc. duly issued and signed by the concerned institutional authority / coordinator / faculty)

Books Recommended:

1. Networking Complete BPB Publication
2. Computer Networking -By Andrew Tanenbaum (Pearson Education)
3. Computer Network - By U.Black
4. D.V.Hall, Microprocessors and Interfacing Programming and Hardware, Mc Graw Hill,1986.
5. William Stallings, Data and Computer Communications, 5th edition, PHI,1997.
6. The 8051 Microcontroller architecture, Programming & Applications- Kenneth J.Ayala (Penram international)
7. The 8051 Microcontroller and Embedded Systems.- M. A. Mazadi, J. C. Mazadi (Pearson Education, Asia)
8. Microprocessor, microcontroller & applications- U. S. Shah (Tech-Max Publication Pune).
9. Programming and Customizing the 8051 Microcontroller- Mike Predko (TMH, New Delhi).

Marks Distribution :

Theory 100 marks.

Practical :

Two practical (each 15 marks).....	30 marks.
Vivo-voc	10 marks.
Record Book	10 marks.

Total - 50 marks.

Project / Field work report 50 marks.

Theory	100 marks.
Practicals	50 marks.
Project / Field work record	50 marks.

Total 200 marks.

Appendix-B

**SYLLABUS PRESCRIBED FOR ADVANCED DIPLOMA COURSE IN COMPUTER
HARDWARE AND NETWORKING**

2. Theory (12 Credits)

Unit-I : (03 Credits)

IP Addressing & TCP/IP

IP address, MAC address, Practice TCP/IP Utilities : ping, pathping ,ipconfig, hostname, route, tracert, netstat, nbtstat, ARP, NSLookup, getmac.

Unit-II : (03 Credits)

Network Security

Concept of network security, Network Security Threats ,Secure Administrative Access, LAN security considerations, Wi-fi security considerations , firewall.

IT Act & Law

Introduction to Cyber Security, Introduction to Cyber Laws & IT Act, Importance of privacy.

Unit-III : (03 Credits)

Diagnostic Tools & PC Maintenance

Introduction, Virus and its types, Effect of Virus on Computer System, Scanning and Antivirus remover tools, Antivirus Utilities for Diagnostic, Safety and Preventive Maintenance Tools, Data Recovery, PC care and Maintenance, Electrical Power Issues, Troubleshooting PC Hardware:- O/S Troubleshooting issues in computer System

Unit-IV: (03 Credits)

Windows Update & Device Driver

Introduction to control panel, Version of a software, Service pack, Updating of OS, Different configurations of Computer system and its peripherals, Compatible with different hardware/software. Software Installation –

Pre-installation - Prerequisites, Install procedure, Rollback or Un-install procedure, Tests.

Post-installation – Backup procedure & specifications, Restore procedure, Periodical view check.

Awareness of legal aspects of using computers such as copyright, patent etc.

2. Practical: Minimum 12 Experiments to be completed as per syllabus.

3. Skill Work (08 Credits)

Field Work / Project Writing / Training: (The proof of this should be submitted during examination, for example: Work experience certificate / Dissertation / Project Report, etc. duly issued and signed by the concerned institutional authority / coordinator / faculty)

Books Recommended:

1. Mueller.S, Upgrading and repairing PCS, 4th Edition, Prentice Hall, 1995.
2. Govindarajulu.B, IBM PC and Clones Hardware trouble shooting and maintenance McGraw Hill, 1993.
3. William Stallings, Data and Computer Communications, 5th edition, PHI,1997.
4. PC Troubleshooting and Repair Stephen J. Bigelow Dream tech Press, New Delhi
5. Computer Networking Andrew S. Tanenbawan By PHI
6. Networking Complete BPB Publication
7. Computer Network - By U.Black
8. Windows 98 BPB Publication
9. Windows XP Professional edition complete BPB Publication
10. Office XP complete BPB publication
11. Trouble shooting, maintaining and repairing PCs By : Stephon J Bigelow Tata McGraw Hill Publication
12. Larry L.Peterson & Bruce S.Davie, Computer Networks - A systems Approach, 2nd edition, Harcourt Asia/Morgan Kaufmann, 2000.
13. PC AND CLONES Hardware, Troubleshooting and Maintenance B. Govinda rajalu, Tata Mc-graw-Hill Publication

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Marks Distribution :

Theory 100 marks.

Practical :

Two practical (each 15 marks)..... 30 marks.

Vivo-voc 10 marks.

Record Book 10 marks.

Total - 50 marks

Project / Field work report 50 marks.

Theory 100 marks.

Practicals 50 marks.

Project / Field work record 50 marks.

Total – 200 marks

NOTIFICATION

No. 100 / 2017

Date: 3/08/2017

Subject : Introduction of new syllabi for Certificate, Diploma & Advanced Diploma courses in Mushroom Cultivation under career oriented programme, from the session 2017-18.

It is notified for general information of all concerned that the authorities of the University have introduced new syllabi in Certificate, Diploma & Advanced Diploma courses in Mushroom Cultivation from the session 2017-18 as given in Appendix-A, B & C respectively.

It is further notified that, the eligibility criteria and other details along with the Scheme of Examinations shall be as provided under Ordinance No. 47/2005, Regulation 38 of 2005.

Sd/-
I/c Registrar
Sant Gadge Baba Amravati University

Appendix-A

**SYLLABUS PRESCRIBED FOR CERTIFICATE COURSE IN
“MUSHROOM CULTIVATION”
UNDER THE SCHEME OF CAREER ORIENTED PROGRAMME
THEORY**

Total Marks: 100

- Unit-I : History of Mushrooms :** Introduction to Mushrooms, Basic concept of mushrooms, History of Mushrooms, Mushrooms in Maharashtra, Mushrooms in India.
- Unit-II : Mushroom Morphology :** Different parts of a typical Mushroom and variations in mushroom morphology, Key to differentiate Edible and Poisonous mushrooms.
- Unit-III : Mushroom Ecology :** Occurrence- Epigenous and Hypogenous, Natural Habitats-Humicolous, Lignicolous and Coprophilous. Wild mushroom collection, Spore print, Drying and preservation techniques.
- Unit-IV : Biology of Mushrooms :** General characters of mushroom with reference to general Morphology and distinguishing characteristics, Life cycles of-
1. *Agaricus bisporous*
2. *Pleurotus sp.*
- Unit-V : Mushroom Cultivation :** Introduction to cultivable mushrooms of India. Cultivation techniques of Oyster mushroom.

Practical for “Certificate Course” in Mushroom Cultivation.

1. Study of external characters of mushroom.
2. Study of internal structure of mushroom.
3. Study of different species of mushrooms.
4. Study of edible mushroom.
5. Study of poisonous mushroom.
6. Diagrammatic study of life cycle of typical mushroom.
7. Photographic collection of different species of mushroom.
8. Preparation of the record of different types mushroom from surroundings.
9. Methods of preservation of mushrooms.
10. Field survey/field work.

Distribution of Marks for Practical Examination.

Time: 3 Hrs.	Marks: 50
01. Identification, classification and comment on given spot with suitable Diagrams (any two)	20
02. Preparation of temporary mount of internal structure of mushroom with reference to pileus, gills and basidiospores.....	10
03. Submission of Photographic collection of different species of mushroom.....	05
04. Viva-voce.....	05
05. Practical record duly signed by faculty in charge and certified by course Co-ordinator.....	10
Total Marks	50

Field survey/field work : Field survey/field work includes 90 Hrs. should based on critical study of any one topic involved in theory or practical.

Appendix-B

**SYLLABUS PRESCRIBED FOR DIPLOMA COURSE IN
“MUSHROOM CULTIVATION”
UNDER THE SCHEME OF CAREER ORIENTED PROGRAMME
THEORY**

Total Marks: 100

- Unit-I : Spawn Preparation :** Facilities required for spawn preparation, Preparation of spawn substrate, Preparation of pure culture, media used in raising pure culture, Culture maintenance, storage of spawn.
- Unit-II : Cultivation of Edible Mushrooms :** Basic requirement of cultivation of edible white button mushroom. Preparation of compost, casing, crop care.
- Unit-III : Cultivation of Edible Mushrooms :** Basic requirement of cultivation of edible *Pleurotus sp.* Mushroom, Substrate selection, Substrate soaking, pasteurization, bagging, spawning, Incubation, harvesting.
- Unit-IV : Production Unit Designing and Economics :** Design of farm, Mushroom farm layout- location of building plot, Small village unit, Larger commercial unit. Equipment's and facilities, Bulk chamber, composting platform, Pasteurization room and growing rooms. Approximate expenditure for the erecting of mushroom unit.
- Unit-V : Mushroom Pest and Pathology :** Fungal diseases of mushroom and control measures-
1. Soft mildew, 2. Brown plaster mould, 3. Dry bubble, 4. Dry truffle
5. Diseases due to *Trichoderma*
Bacterial diseases of mushroom and control measures-
1. Brown Blotch or Bacterial spot.
Pest of mushroom and its management.

Practical for “Diploma Course” in Mushroom Cultivation.

01. Study of various equipment's.
02. Media Preparation used for pure culture.
03. Preparation of pure culture.
04. Maintenance of culture.
05. Preparation of spawn substrate.
06. Storage of spawn.
07. Materials for compost preparation.
08. Composting platform.
09. Short method of composting.
10. Long method of composting.
11. Fundamentals of cultivation system
12. Mushroom farm layout.
13. Location of building plot, design of farm, bulk chamber.
14. Pest and diseases of mushroom.
15. Visit to Mushroom production unit in Maharashtra.

Distribution of Marks for Practical Examination.

Time: 3 Hrs.	Marks: 50
01. To perform given major experiment (any one)	20
02. To perform given minor experiment (any one)	10
03. Submission of Tour Report.....	05
04. Viva-voce.....	05
05. Practical record duly signed by faculty in-charge and certified by course Co-ordinator.....	10
Total Marks	50

Institutional Visit: Visit to Mushroom production unit in Maharashtra.

Appendix-C

**SYLLABUS PRESCRIBED FOR ADVANCED DIPLOMA COURSE IN
“MUSHROOM CULTIVATION”
UNDER THE SCHEME OF CAREER ORIENTED PROGRAMME
THEORY**

Total Marks: 100

- Unit-I : Storage and Marketing :** Storage of fresh mushrooms, Storage of mushroom in low temperature, Storage of dried mushrooms, Control Storage, Gamma rays processing storage. Marketing strategies of mushroom.
- Unit-II : Processing of Mushroom :** Different methods of mushroom processing
1. Canning of mushroom
2. Dehydration of mushroom
3. Packing of mushroom.
- Unit-III : Nutrient Profile of Mushrooms :** Proteins, amino acids, calorific values, carbohydrates, fats, vitamins and minerals.
- Unit-IV : Health Benefits of Mushrooms :** Anti-viral value, anti-bacterial effect, anti-fungal effect, anti-tumour effect, Haematological value, cardiovascular and renal effect, in therapeutic diets, adolescence, for aged persons and diabetes mellitus.
- Unit-V : Mushroom Recipes :** Preparation of various dishes like-
Mushroom sabji, Mushroom Achar, Mushroom khir
Mushroom soup, Mushroom pakoda and Mushroom papad.

Practical for “Advanced Diploma Course” in Mushroom Cultivation.

01. Canning of mushroom.
02. Dehydration of mushroom.
03. Drying methods of mushroom.
04. Marketing strategies of mushrooms.
05. Cropping and crop management in mushroom cultivation
06. Study of picking and packing methods.
07. Different methods of mushroom storage.
08. Study of various methods of mushroom processing.
09. Nutritional values of mushroom.
10. Medicinal importance of mushroom.
11. Preparation of various mushroom dishes.
12. Visit to Mushroom Research Centre.

Distribution of Marks for Practical Examination.

Time: 3 Hrs.

Marks: 50

- | | |
|---|----|
| 01. To perform given major experiment (any one) | 15 |
| 02. To perform given minor experiment (any one) | 10 |
| 03. Submission of Institutional Visit Report..... | 10 |
| 04. Viva-voce..... | 05 |
| 05. Practical record duly signed by faculty in- charge and certified by
Course Co-ordinator..... | 10 |

Total Marks : 50

Books Recommended for Certificate/ Diploma/ Advanced Diploma Courses:

1. Mushroom Cultivation, Tripathi, D.P. (2010) Oxford & IBH Publishing Co. Pvt. Ltd. New Delhi.
2. Mushroom Production and Processing Technology, Pathak, Yadav, Gour (2010) Published by Agribios (India).
3. A hand book of edible mushroom, S. Kannaiyan& K. Ramasamy(1980). Today & Tomorrows printers & publishers, New Delhi.
4. Hand book on Mushrooms, Nita Bahl, Oxford & IBH Publishing Co. Pvt.Ltd.New Delhi.
5. Mushroom: Its Wild Relatives. Das
6. Mushrooms: Cultivation, Nutritional Value, Medicinal Effects & Environmental Impact, Chang Shu Ting
7. Complete Book of Mushrooms, Jordan.
8. Technical Guidelines for Mushroom Growing in the Tropic, Royse.
9. Mushroom Biotechnology: Development and Application, Petre.
10. Mushroom Cultivation, Kumar.
11. Advances in Mushroom Sciences, Dutta.
12. Mushroom Production & Utilization, Singh.
13. Experiment in Microbiology & Plant Pathology, Aneja.
14. Mushroom Growing, Dey.
15. Techniques of Mushroom Cultivation, Mishra.
16. Alimbi Lagwad, Jadhao, Nawgire and Ambadkar VN Marathwada Krishi Vidyapeeth Parbhani.
17. Mushroom – A Manual for Cultivation- 2012, Biswas S.
18. Mushroom Cultivation 2005. Tripathi D.P.
19. Mushroom Part-1 Pusadkar G. Bokey Prakashan, Amravati.
20. Manual of Indian Edible Mushroom ,R.K.Purkaystha and Aindrila Chandra
21. Introduction to Mushroom Science, Kaul T.N.
22. Mushroom Part-2, Dr. Asha Mane
