

CERTIFICATE COURSE IN HEALTH CARE (BIOMEDICAL SCIENCE)

Crisis Management in
HEALTHCARE: Responding
to Emergencies and
Disasters



**Free Certificate course for
College Students**

Duration – 30 Hours (10 Weeks)

**Process of Registration- Early
birds will be admitted**

Course Objectives:

- 1) To understand basic healthcare.
- 2) To understand various healthcare services.
- 3) To understand interrelationship between public health, global health and Environmental health.
- 4) To understand types of healthcare and maintenance of health.
- 5) To acquire knowledge of health-related sectors.
- 6) To understand self-care strategies in India.
- 7) To understand occupational safety, health information and techniques.



**Department of Zoology
SSES Amt's Science College, Congress
Nagar, Nagpur**

** A Healthcare (Biomedical Science) course typically focuses on the Scientific and technical aspects of health and disease, providing students with a comprehensive understanding of the biological and physiological principles underlying medical practice. The Healthcare (Biomedical Science) course integrates foundational knowledge in Life Science, chemistry, and physics with specialized medical and clinical applications. It prepares students for careers in healthcare, research, and related fields. Health of the people is important to aware the society about it. It is characterized as anatomic, physiologic, and psychological integrity to perform work.*

Last Date of Registration: 16/01/2023

For Registration Contact: Dr. R.A. Patil Bhagat

Course schedule : 23/01/2023 to 10/04/2023

To,
The Principal
Shri Shivaji Science College,
Nagpur

Subject: Permission to Conduct Certificate Course in Healthcare : Biomedical Science

Respected sir,

This is to request you that Certificate Course in Healthcare : Biomedical Science has been organised as a part of UG/PG Curriculum. As the course coordinator, I assure you that this program will enhance the skills and knowledge of our students. It covers essential topics related to haematology, and successful completion will result in a valuable certificate.

I kindly request your permission to proceed with organizing this course. We have already prepared the course content, and experienced faculty members are willing to conduct the sessions. So please grant us permission to conduct the course .

Please do the Needful and Oblige.

Thanking you


Yours Faithfully

Date:- 05/01/2023
Place:- Nagpur

permitted.
permitted
M. Ghosh

Shivaji Education Society Amravati's
Science College Congress Nagar, Nagpur
Department of Zoology
Session: 2022-23

NOTICE

REGISTRATION OPEN FOR CERTIFICATE COURSE IN
Healthcare

Date: 05/01/2023

All students of B.Sc. I, II, III are informed that the Department of Zoology, Shri Shivaji Science College, Nagpur is pleased to announce the opening of registrations for the **Certificate Course in Healthcare**. This course is designed to provide students with advanced knowledge and practical skills in healthcare.

Interested student can give their names to the course coordinator before 16/01/23.

Course coordinator: Dr. R. A. Patil Bhagat

R. Patil

Dr. R. A. Patil Bhagat
Coordinator
Health Care (Biomedical Science)
Department of Zoology

SSES Amravati's Science College, Congress Nagar, Nagpur-12

DEPARTMENT OF ZOOLOGY

COURSE MODULE AND SYLLABUS

Course Title: Certificate Course in Health Care (Biomedical Science)

Course Coordinator : Dr. Mrs. Rupali A. Patil Bhagat

Course description:

A Healthcare (Biomedical Science) course typically focuses on the scientific and technical aspects of health and disease, providing students with a comprehensive understanding of the biological and physiological principles underlying medical practice. The Healthcare (Biomedical Science) course integrates foundational knowledge in Life Science, chemistry, and physics with specialized medical and clinical applications. It prepares students for careers in healthcare, research, and related fields. Health of the people is important to aware the society about it. It is characterized as anatomic, physiologic, and psychological integrity to perform work. Health Care System (HCS) infrastructure includes services, facilities, institutions/establishments and organizations. They provide individuals, families and communities with primitive, protective, preventive, diagnostic, curative and rehabilitative measures and services. There are different HCSs all over the world, which are strongly influenced by nation's history, traditions, socio-cultural, economic, political and other factors. In the first decade of the 21st century, the conceptualization of health as an ability opened the door for self-assessments to become the main indicators to judge the performance of efforts aimed at improving human health and lifestyle. This Certificate course on healthcare (Biomedical Science), is towards making students aware about introductory requirement to understand and to create the opportunity for every person to feel healthy, even in the presence of multiple chronic diseases, or a terminal condition and for the re-examination of determinants of health, away from the traditional approach that focuses on the reduction of the prevalence of diseases. Applied health sciences endeavor to better understand and improve human health through applications in areas. This course will cover building block contains to understand healthcare and its integral relationship with zoology.

Course Objectives:

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- 2) To understand various healthcare services.
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- 5) To acquire knowledge of health related sectors.
- 6) To understand self-care strategies in India.
- 7) To understand occupational safety, health information and techniques.

Instructional Strategies: Theory class, Practical, Video clips, Models etc.

Evaluation Strategies: Oral discussions and Final MCQ examination.

Course outline: Course Outlines: (Relevance)

- 1) Healthcare and its relation to other sciences.
- 2) Role and organization of health care systems.
- 3) Distinguish national health care systems based on sources of funding.
- 4) Scope of activities of health organizations on different levels.
- 5) Classify health service organizations depend on various criteria.
- 6) Three generations of reforms in health system.
- 7) Main goals of national health systems.
- 8) Main objectives of national health systems
- 9) Common problems of health care system.
- 10) New challenges of health care system
- 11) Care in Hospitals
- 12) Public health care services improve lifestyle.

Course Outcomes (COs):

- 1) To increase understanding various healthcare services and systems organization.
- 2) To understand interrelationship between public health, global health and Environmental health.
- 3) Be able to describe scope of activities of health organizations depend on different criteria
- 4) To identify main goals and objectives of national health systems.
- 5) To describe three generations of reforms in health systems.
- 6) To understand health services of India and to develop critical thinking on how public health care services improve lifestyle.
- 7) Apply scientific principles to understand and address health-related issues.
- 8) This course is ideal for students interested in the intersection of science and healthcare, providing a solid foundation for various career paths in the medical and health sciences fields.

Duration of course: Ten weeks (30 Hours)

The Structure of Syllabus and system of evaluation -

Course	Theory Papers and Practical	Total Marks	
		Theory	Practical
Certificate Course in Health Care	Theory paper- Health Care (Biomedical Science) * Theory examination will be of MCQ pattern having 60 or 80 questions each with equal marks.	80	20
	* Practical examination will be based on performance evaluation in the laboratory	100	

M. Shukla
Principal.

R. A. Patil
IQAC Coordinator.

Rupali
R.A. Patil Bhagat
Coordinator.

SYLLABUS

Certificate course (10 weeks)
(Health Care (Biomedical Science))

Theory-

UNIT- I

Study of the human body's structure and function.

Healthcare

Biomedical Science relation to other sciences

History

Healthcare services

Public, global, environmental health

Determinants

Potential issues

UNIT – II

WHO

Social determinants of health

Risk factors

Mental health

Healthy diet and human nutrition

Exercise

Role of Science –Health science and health care

UNIT – III

Role of public health in development of nation

Health information

Health techniques

Occupational

Occupational safety and health

Self-care strategies

Practicals-

- a) Primary aids during the site of disaster/accident/other health emergencies
- b) Study of First Aid Medicines
- c) External examinations of patient
- d) Study of blood sugar, Hemoglobin and Blood pressure
- e) Study of specialty in local hospitals

Distribution of marks: -

- | | |
|------------------------------------|----|
| 1. Primary aids - | 05 |
| 2. Diseases and primary medicine - | 05 |
| 3. Estimation of Blood pressure - | 05 |
| 3. Estimation of Blood Sugar - | 05 |

Week-wise teaching plan:

Week	Hrs.	Syllabus
Week 1	1	Study of the human body's structure and function & Healthcare (practical)
	1	Importance of Primary Health care
	1	Biomedical Science relation to other sciences
Week 2	1	History
	2	Healthcare services
Week 3	1	Public, global, environmental health
	2	Determinants
Week 4	1	Potential issues
	1	WHO
Week 5	2	Social determinants of health
	1	Risk factor
Week 6	2	Mental health
	1	Healthy diet and human nutrition
Week 7	2	Exercise (Practical)
	1	Role of Science –Health science and health care
Week 8	2	Role of public health
	1	Health information
Week 9	2	Laboratory techniques (Practical)
	1	Occupational
Week 10	1	Occupational safety and health
	2	Self-care strategies

SSES AMT'S SCIENCE COLLEGE, CONGRESS NAGAR, NAGPUR-12

Certificate Course in Health Care (Biomedical Science)
Time Table

Day	Theory
Friday	RAP (B13) Theory 4.00 PM – 5.00 PM
Saturday	RAP (ZL) practical, 4.00 PM – 5.00 PM
	SVG (B13) Theory, 5.00 PM – 6.00 PM



Shri Shivaji Education Society Amravati's
Science College, Congress Nagar, Nagpur
DEPARTMENT OF ZOOLOGY

Certificate course in Healthcare (Biomedical Science)

Sr. No	Roll No		Name of Student
1	Z101	Ku	ADROKAR TULNA DILIP
2	Z102		AGNIHOTRI DEVESH MAHESH
3	Z103	Ku	ALAM ALIYA
4	Z104	Ku	ALASPURE SHIVANI SHRIKANT
5	Z105	Ku	ALONE KHUSHI PRABHUDAS
6	Z106	Ku	AMBOLIKAR ISHIKA MANISH
7	Z107		ATKAR PRANAY RAVIKIRAN
8	Z108		BADWAIK AYUSH SURENDRRA
9	Z109	Ku	BAGADE DIYA DEEPAK
10	Z110	Ku	BAGADE LEENA BABULAL
11	Z111	Ku	BAGDE BHAWANA KESHAV
12	Z112	Ku	BAGHEL UMAKANTI JAGMOHAN
13	Z113	Ku	BAJAIT KRUNAL ASHOK
14	Z114		BAND HARDIK MAHENDRA
15	Z115	Ku	BANDHUKIA AFIYA MUNAF
16	Z116	Ku	BANGDE RAJSHREE BHOJRAJ
17	Z117	Ku	BARIK PRACHI VINOD
18	Z118		BATKE ABHISHEK MANOJ
19	Z119	Ku	CHADOKAR GARIMA WAMANRAO
20	Z120		CHAKOLE YASH GHANSHAYAM
21	Z121	Ku	CHATAP PAYAL RAMRAO
22	Z122	Ku	CHAVHAN AKANSHA RAJU
23	Z123	Ku	CHHAWARE TASBIHA HAPIJUL
24	Z124	Ku	CHITMITWAR RAKSHITA AJAYKUMAR
25	Z125	Ku	CHOUDHARY KOMAL SUKHDEV
26	Z126	Ku	DAKAHA ISHA ARUN

27	Z127	Ku	DALAL YASHREE RAJENDRA
28	Z128		DESAI RIDDHI RAJESH
29	Z129	Ku	DESHMUKH KHUSHI SHIVSHANKAR
30	Z130	Ku	DESHMUKH ROHINI VINOD
31	Z131		DHABARDE PRASHIK RAGHUNATH
32	Z132	Ku	DHAWANKAR ISHA UMESH
33	Z133	Ku	DHOLE MANJIRI ANIL
34	Z134	Ku	DOMKE POONAM SURYABHAN
35	Z135		DORLE YASH SUNIL
36	Z136	Ku	DUBE PRIYANSHI NAGENDRA
37	Z137		DUTTA RAVEN SONI
38	Z138	Ku	FULZELE SUHANI SAHADEO
39	Z139	Ku	FUNNE KAMINI GAJANANRAO
40	Z140	Ku	GAURKAR SAMIR LILADHAR
41	Z141	Ku	GAUTAM ANJALI BHIMSINGH
42	Z142	Ku	GAUTAM SALONI VINOD
43	Z143	Ku	GAUTRE ESHA MAHADEV
44	Z144	Ku	GHAYWAT YASHASHREE SANJAY
45	Z145	Ku	GHORE VANUSHKA VINOD
46	Z146	Ku	GIRI ADITI SHARAD
47	Z147	Ku	GIRI DEVENDRA SHYAM
48	Z148	Ku	GUPTA MOHINI MAHENDRAKUMAR
49	Z149	Ku	HADKE TANMAYEE RASHTRAPAL
50	Z150		HAWARE JAYESH ATUN
51	Z151	Ku	HEDAU AYUSHI LAXMINATH

*-ordinator *Rupali*

Name: Dr. R. A. Pali Bhagat

Abhade

Head of the Zoology Department

Dr. Dr. A. D. Bobdey
 Prof. Professor & Head
 Department of Zoology,
 Shri Shriji Science College,
 Congress Nagar, Nagpur-42.2.

Shri Shivaji Education Society Amravati's
Science College Congress Nagar, Nagpur
Department of Zoology
Session: 2022-23

NOTICE

Date: 19/01/23

All the students of B.Sc. I, II, III are hereby informed that a lecture Certificate Course in Health Care (Biomedical Science) will start from 23/01/23 to 10/04/23. All are informed to attend the lecture.

Time Table

Day	Theory
Friday	RAP (B13) Theory 4.00 PM – 5.00 PM
Saturday	SVG (ZL) practical, 4.00 PM – 5.00 PM
	RAP (B13) Theory, 5.00 PM – 6.00 PM

Rupali

Dr. R. A. Patil Bhagat
Coordinator
Health Care (Biomedical Science)
Department of Zoology



Shri Shivaji Education Society Amravati's
Science College, Congress Nagar, Nagpur
DEPARTMENT OF ZOOLOGY
Certificate course in _____

Sr. No	Roll No		Name of Student	Sign
1	Z101	Ku	ADROKAR TULNA DILIP	Tulna.
2	Z102		AGNIHOTRI DEVESH MAHESH	DA
3	Z103	Ku	ALAM ALIYA	Aliya.
4	Z104	Ku	ALASPURE SHIVANI SHRIKANT	Shivani.
5	Z105	Ku	ALONE KHUSHI PRABHUDAS	Alone.
6	Z106	Ku	AMBOLIKAR ISHIKA MANISH	Ishika.
7	Z107		ATKAR PRANAY RAVIKIRAN	Pranay
8	Z108		BADWAIK AYUSH SURENDRRA	Ayush.
9	Z109	Ku	BAGADE DIYA DEEPAK	Diya.
10	Z110	Ku	BAGADE LEENA BABULAL	
11	Z111	Ku	BAGDE BHAWANA KESHAV	Bhavana
12	Z112	Ku	BAGHEL UMAKANTI JAGMOHAN	Umesh
13	Z113	Ku	BAJAIT KRUNAL ASHOK	K Bajait
14	Z114		BAND HARDIK MAHENDRA	H
15	Z115	Ku	BANDHUKIA AFIYA MUNAF	Afiya.
16	Z116	Ku	BANGDE RAJSHREE BHOJRAJ	Rajshree
17	Z117	Ku	BARIK PRACHI VINOD	Prachi
18	Z118		BATKE ABHISHEK MANOJ	Abhishek
19	Z119	Ku	CHADOKAR GARIMA WAMANRAO	Garima
20	Z120		CHAKOLE YASH GHANSHAYAM	Y.G.
21	Z121	Ku	CHATAP PAYAL RAMRAO	P.R. Chatap.
22	Z122	Ku	CHAVHAN AKANSHA RAJU	Akansha
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26	Z126	Ku	DAKAHA ISHA ARUN	Isha
27	Z127	Ku	DALAL YASHREE RAJENDRA	
28	Z128		DESAI RIDDHI RAJESH	Riddhi
29	Z129	Ku	DESHMUKH KHUSHI SHIVSHANKAR	K. Deshmukh
30	Z130	Ku	DESHMUKH ROHINI VINOD	Rohini.

31	Z131		DHABARDE PRASHIK RAGHUNATHI	<i>P. Raghunathi</i>
32	Z132	Ku	DHAWANKAR ISHA UMESH	<i>I. Umesh</i>
33	Z133	Ku	DHOLE MANJIRI ANIL	<i>A. Manjiri</i>
34	Z134	Ku	DOMKE POONAM SURYABHAN	<i>P. Suryabhan</i>
35	Z135		DORLE YASHI SUNIL	<i>S. Yashi</i>
36	Z136	Ku	DUBE PRIYANSHI NAGENDRA	<i>P. Priyanshi</i>
37	Z137		DUTTA RAVEN SONI	<i>R. Raven</i>
38	Z138	Ku	FULZELE SUHANI SAHADEO	<i>S. Suhani</i>
39	Z139	Ku	FUNNE KAMINI GAJANANRAO	<i>K. Kamini</i>
40	Z140	Ku	GAURKAR SAMIR LILADHAR	<i>S. Samir</i>
41	Z141	Ku	GAUTAM ANJALI BHIMSINGH	<i>A. Anjali</i>
42	Z142	Ku	GAUTAM SALONI VINOD	<i>S. Saloni</i>
43	Z143	Ku	GAUTRE ESHA MAHADEV	<i>E. Esha</i>
44	Z144	Ku	GHAYWAT YASHASHREE SANJAY	<i>Y. Yashashree</i>
45	Z145	Ku	GHORE VANUSHKA VINOD	<i>V. Vanushka</i>
46	Z146	Ku	GIRI ADITI SHARAD	<i>A. Aditi</i>
47	Z147	Ku	GIRI DEVENDRA SHYAM	<i>D. Devendra</i>
48	Z148	Ku	GUPTA MOHINI MAHENDRAKUMAR	<i>M. Mohini</i>
49	Z149	Ku	HADKE TANMAYEE RASHTRAPAL	<i>T. Tanmayee</i>
50	Z150		HAWARE JAYESH ATUN	<i>J. Jayesh</i>
51	Z151	Ku	HEDAU AYUSHI LAXMINATH	<i>A. Ayushi</i>

Co-coordinator

Name: *Dr. R.A. Patil Bhagat*

@babbley

Head of the Zoology Department

Dr. Dr. A.D. Babbley
 Professor & Head
 Department of Zoology,
 Shri Shivaji Science College,
 Congress Nagar, Nagpur-465 012.

Shri Shivaji Education Society Amravati's

Science College, Congress Nagar, Nagpur

DEPARTMENT OF ZOOLOGY

Academic session 2022-2023hg

Certificate course in

HEALTH CARE (BIOMEDICAL SCIENCE)

MCQ TEST EXAMINATION

2

64

Time: 45 min

Maximum Marks: 80

N.B.: Solve all the questions

Roll. No.: 2 - 104

✓ Tick for right answer

Q. 1. Health can be defined as:

2 points

- A. State of complete physical, mental and social well-being of an individual
- B. State of being free from any illness
- C. A persons physical or mental condition
- ✓ D. All above are correct

Q. 2. Optometry is:

2 points

- A. A branch of health science that deals with the study of mind and behaviour
- B. A branch of health science that deals with the study and treatment of hearing systems
- ✓ C. A branch of health science that deals with the study and treatment of visual systems
- D. A branch of health science that deals with the discovery and effective use of drugs

Q. 3. Midwifery is:

2 points

- A. A branch of health science that deals with the study and treatment of hearing systems
- B. A branch of science that deals with study of occupations
- ✓ C. A branch of health science that deals with the study and treatment of visual systems
- ✓ D. A branch of health science that deals with pregnancy, child birth and care of new born individuals

Q. 4. Health information can be obtained from:

2 points

- A. Government websites
- B. Medical journals
- ✓ C. Educational websites
- ✓ D. All above are correct

Q. 5. Artificial Intelligence is:

2 points

- A. Use of specialized machines, software programs and materials to automate the process of building objects like splints, prostheses, etc.
- ✓ B. A program that enables computers to sense, reason, act and adapt
- C. Imaging hardware and software
- ✓ D. All above are correct

Q. 6. Surgical robots:

2 points

- D
- A. Conduct biopsies, film the affected areas and clear blocked arteries
 - B. Moved inside a patient and delivered to a desired area
 - C. Help nurses in health care
 - D. All above are correct

Q. 7. Self monitoring is done with the help of:

2 points

- A. Smartphones
- B. Tablets
- C. Wearable technology like fitbit
- D. All above are correct

Q. 8. Occupational therapist often work with individuals:

2 points

- A. Mental disabilities
- B. Physical disabilities
- C. Injuries
- D. All above are correct

Q. 9. Children and adults with mental and physical disabilities are addressed by:

2 points

- A. Audiologist
- B. Psychologist
- C. Physical therapist
- D. Occupational Therapist

Q. 10. World Occupational Therapy day is celebrated on:

2 points

- C
- A. October 27
 - B. October 21
 - C. September 25
 - D. August 23

Q. 11. -----is one of laboratory disciplines of Biomedical Science

2 points

- A. Genetics and Molecular Pathology
- B. Animal Physiology
- C. Physics
- D. Pharmaceutical Science

Q. 12 -----Invented microscope

2 points

- A. Hippocrate
- B. Aristotle
- C. Newton
- D. Anton van Leeuwenhoek

Q. 13 -----is a new concept used to represent obtaining medical or surgical services while traveling or vacationing in another country.

2 points

- A. Eco Tourism

- B. Medical Tourism
- C. Agro Tourism
- D. Aqua Tourism

Q. 14 Healthcare sector governed by -

2 points

- A. Ministry of Health and Family Welfare
- B. Ministry of Defence
- C. Ministry of Rural Development
- D. Ministry of Human Resource Development

Q. 15 Which of the following is the best definition of the term "health insurance premium?" 2 points

- A. The best type of health insurance you can buy.
- B. The amount health insurance companies charge each month for coverage.
- C. A bonus you get at the end of the year if you stay covered.
- D. Don't know.

Q. 16 World largest Government funded Healthcare Scheme

2 points

- A. Ayushman Bharat
- B. Ayushman India
- C. Ayushmati Bharti
- D. Ayush

Q. 17 -----is the study of genes, genetic variation, and heredity in living organisms

2 points

- A. Histology
- B. Cytology
- C. Genetics
- D. Psychology

Q. 18 Is a health insurance premium something you must pay every month, regardless of whether you use health care services, or do you only have to pay your health insurance premium during months when you use health care services?

2 points

- A. Only have to pay in months when you use health care services
- B. Must pay every month, regardless of whether you use services
- C. premium is the monthly fee all enrollees pay in order to have health insurance coverage
- D. Don't know

Q. 19 Ability to provide interactive healthcare utilizing modern technology and telecommunications -

2points

- A. Aurvedic Medicine
- B. Telemedicine
- C. Telehealth
- D. Teleperformance

Q.20 ----- is more popular for cosmetic surgery

2 points

- A. Singapore
- B. Thailand
- C. Malaysia
- D. Phillipines

Q.21 The World Health Day is celebrated on _____ . 2 points

- (a) 1st March
- (b) 7th April
- (c) 6th October
- (d) 10th December

Q.22. Cleanliness, physical exercise, rest and sleep are a part of _____ . 2 points

- (a) Hygiene
- (b) Social hygiene
- (c) Personal hygiene
- (d) None of the above

Q.23. Which one of the following is an unhealthy habit? 2 points

- (a) Sharing food
- (b) Bathing twice a day
- (c) Drinking boiled water
- (d) Eating without washing one's hand

Q.24. Which one of the following is not a bacterial disease? 2 points

- (a) AIDS
- (b) Dengue
- (c) Measles
- (d) All of the above

Q.25. Which of the following diseases is also called as "Salmonella enterica serotype Typhi"? 2 points

- (a) Typhoid
- (b) Malaria
- (c) Diarrhea
- (d) Yellow fever

Q.26. Which of the following is the main cause for transmission of the Hepatitis virus? 2 points

- (a) The bite of a mosquito
- (b) Sharing drug needles
- (c) Drinking contaminated water
- (d) All of the above

Q.27. Which of the following statements is true about contamination? 2 points

- (a) Contamination is caused by the entry of germs by an insect bite
- (b) Contamination is caused by the entry of germs by an animal bite
- (c) Contamination is caused by the entry of germs into drinking water or edible foods.
- (d) None of the above

Q.28. Which of the following diseases is not caused by bacteria? 2 points

- (a) Typhoid

Q.36. When the food is directly given in the veins, it is called _____ nutrition. 2 points

- A. Parenteral
- B. Enteral
- C. Intravenous
- D. Saline

Q.37. When food is given in the stomach or intestines directly then it is _____ nutrition. 2 points

- A. Intravenous
- B. Saline
- C. Enteral
- D. Parenteral

Q.38. A person who has had a renal transplant should regulate the intake of _____. 2 points

- A. carbohydrates
- B. proteins
- C. fats
- D. vitamins

Q.39. To overcome diabetes, a person can increase the intake of _____ and reduce the intake of. 2 points

- A. carbohydrates, proteins
- B. proteins, fats
- C. fats, carbohydrates
- D. carbohydrates, fats

Q.40. For a person suffering from problems like slow neural transmission, eg dementia, they should be given _____ 2 points

- A. Increased sodium
- B. Increased potassium
- C. Increased calcium
- D. Increased magnesium

- (b) Poliomyelitis
- (c) Tuberculosis
- (d) All of the above.

Q.29. The main cause of contagious disease is _____.

2 points

- (a) Contaminated Air
- (b) Contaminated Food
- (c) Poor hygienic conditions
- (d) All of the above

Q.30. Which of the following factors is necessary for a healthy person?

2 points

- (a) Vaccination
- (b) Balanced diet
- (c) Personal hygiene
- (d) All of the above

Q.31. Which of the following is/are the elements of nutrition?.

2 points

- A. Carbohydrates
- B. Proteins
- C. Fats
- D. All of these

Q.32. All except one are true about the significance of dietary fiber ?

2 points

- A. It promotes peristalsis
- B. Reduces Cholesterol absorption
- C. Increases glycemic index
- D. Acts as an anti oxidant

Q.33. Which of the following has the highest Specific dynamic action (SDA) ?

2 points

- A. Egg
- B. Potato
- C. Corn oil
- D. Mango

Q.34. Which of the following nutrients is rich in short and medium chain fatty acids ?

2 points

- A. Milk
- B. Peanut oil
- C. Sunflower oil
- D. Almond oil

Q.35. Human most easily tolerate a lack of which of the following nutrient ?

2 points

- A. Protein
- B. Carbohydrate
- C. Lipids
- D. Calcium

Q.36. When the food is directly given in the veins, it is called _____ nutrition. 2 points

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- A. carbohydrates, proteins
- B. proteins, fats
- C. fats, carbohydrates
- D. carbohydrates, fats

Q.40. For a person suffering from problems like slow neural transmission, eg dementia, they should be given _____ 2 points

- A. Increased sodium
- B. Increased potassium
- C. Increased calcium
- D. Increased magnesium



Shri Shivaji Education Society Amravati's
Science College, Congress Nagar, Nagpur
DEPARTMENT OF ZOOLOGY
Certificate course in Healthcare : Biomedical Science

Sr. No	Roll NO		Name of Students	Marks		Total Marks	Grades
				Theory	Practical		
1	Z101	Ku	ADROKAR TULNA DILIP	66	18	84	A+
2	Z102		AGNIHOTRI DEVESH MAHESH	68	18	86	A+
3	Z103	Ku	ALAM ALIYA	44	19	63	B+
4	Z104	Ku	ALASPURE SHIVANI SHRIKANT	64	17	81	A+
5	Z105	Ku	ALONE KHUSHI PRABHUDAS	64	18	86	A+
6	Z106	Ku	AMBOLIKAR ISHIKA MANISH	44	16	60	B
7	Z107		ATKAR PRANAY RAVIKIRAN	56	15	71	A
8	Z108		BADWAIK AYUSH SURENDRRA	42	18	60	B
9	Z109	Ku	BAGADE DIYA DEEPAK	24	18	42	C
10	Z110	Ku	BAGADE LEENA BABULAL	36	19	55	B
11	Z111	Ku	BAGDE BHAWANA KESHAV	50	18	68	B+
12	Z112	Ku	BAGHEL UMAKANTI JAGMOHAN	62	18	80	A
13	Z113	Ku	BAJAIT KRUNAL ASHOK	38	19	57	B
14	Z114		BAND HARDIK MAHENDRA	60	20	80	A
15	Z115	Ku	BANDHUKIA AFIYA MUNAF	74	20	94	O
16	Z116	Ku	BANGDE RAJSHREE BHOJRAJ	70	20	90	A+
17	Z117	Ku	BARIK PRACHI VINOD	68	17	85	A+
18	Z118		BATKE ABHISHEK MANOJ	40	16	56	B
19	Z119	Ku	CHADOKAR GARIMA WAMANRAO	54	13	67	B+
20	Z120		CHAKOLE YASH GHANSHAYAM	48	14	62	B+
21	Z121	Ku	CHATAP PAYAL RAMRAO	56	12	68	B+
22	Z122	Ku	CHAVHAN AKANSHA RAJU	76	15	91	O
23	Z123	Ku	CHHAWARE TASBIHA HAPIJUL	74	16	90	A+
24	Z124	Ku	CHITMITWAR RAKSHITA AJAYKUMAR	80	15	95	O
25	Z125	Ku	CHOUDHARY KOMAL SUKHDEV	32	16	48	C
26	Z126	Ku	DAKAHA ISHA ARUN	38	16	54	B

27	2127	Ku	DALAL YASHREE RAJENDRA	58	17	75	A
28	2128		DESAI RIDDHI RAJESH	70	18	88	A+
29	2129	Ku	DESHMUKH KHUSHI SHIVSHANKAR	68	18	86	A+
30	2130	Ku	DESHMUKH ROHINI VINOD	54	17	70	A
31	2131		DHABARDE PRASHIK RAGHUNATH	52	18	70	A
32	2132	Ku	DHAWANKAR ISHA UMESHI	68	19	87	A+
33	2133	Ku	DHOLE MANJIRI ANIL	42	13	55	B
34	2134	Ku	DOMKE POONAM SURYABHAN	38	12	50	B
35	2135		DORLE YASH SUNIL	74	14	88	A+
36	2136	Ku	DUBE PRIYANSHI NAGENDRA	60	14	74	A
37	2137		DUTTA RAVEN SONI	70	13	83	A+
38	2138	Ku	FULZELE SUHANI SAHADEO	74	12	86	A+
39	2139	Ku	FUNNE KAMINI GAJANANRAO	38	15	53	B
40	2140	Ku	GAURKAR SAMIR LILADHAR	68	16	84	A+
41	2141	Ku	GAUTAM ANJALI BHIMSINGH	64	16	80	A+
42	2142	Ku	GAUTAM SALONI VINOD	70	16	86	A+
43	2143	Ku	GAUTRE ESHA MAHADEV	58	17	75	A
44	2144	Ku	GHAYWAT YASHASHREE SANJAY	66	18	84	A+
45	2145	Ku	GHORE VANUSHKA VINOD	62	18	80	A+
46	2146	Ku	GIRI ADITI SHARAD	78	20	98	O
47	2147	Ku	GIRI DEVENDRA SHYAM	40	19	59	B
48	2148	Ku	GUPTA MOHINI MAHENDRAKUMAR	48	18	66	B+
49	2149	Ku	HADKE TANMAYEE RASHTRAPAL	58	16	74	A
50	2150		HAWARE JAYESH ATUN	60	16	76	A
51	2151	Ku	HEDAU AYUSHI LAXMINATH	72	14	86	A+

Co-coordinator

Name: _____

Rupali

Head of the Zoology Department

Dr. A. D. Bobdey
 Professor & Head
 Department of Zoology,
 Shri Shivaji Science College,
 Congress Nagar, Nagpur-12.

Shri Shivaji Education Society Amravati's
Science College, Nagpur
Attendance Sheet 2022-23

Course duration - 30 Hours

Certificate course in _____

Coordinator: _____

Sr. No	Name of Students	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	Total		
1	Ku ADROKAR TUNA DILIP	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
2	Ku AGNIHOTRI DEVESH MAHESH	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
3	Ku ALAMI ALINA	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
4	Ku ALASPURE SHIVANI SRIKANT	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
5	Ku ALONE NRI SHI PRABHU DAS	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
6	Ku AMBOLKAR NISHIKA MANISH	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
7	Ku ATKAR PRANAY RAJKIRAN	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
8	Ku BADWAIK AYUSHI SURENDRRA	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
9	Ku BAGADE DIYA DEEPAK	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
10	Ku BAGADE LEENA BABULAL	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
11	Ku BAGDE BHAVANA KESHAV	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
12	Ku BAGHEL UMAKANTU JAGMOHAN	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
13	Ku BAJAIT KRUMAI ANSHOK	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
14	Ku BANDHARDIK MAJENDRA	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
15	Ku BANDHUKIA AFYA MUNAF	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
16	Ku BANGDE RAUSHRELI BHODIRAJ	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
17	Ku BARIK PRACHI VINOD	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
18	Ku BAJKE ABHISHEK MANOJ	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
19	Ku CHADOKAR GARIMA WAMANRAO	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
20	Ku CHAKOLE YASHI GHANSHAYAM	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
21	Ku CHATAPPAYAL RAMRAO	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
22	Ku CHAVHAN AKANSHA RAJU	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
23	Ku CHHAMARE TASEEHA HAPIJUL	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
24	Ku CHITMITWAR RAKSHITA AJAYKUMAR	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
25	Ku CHOUDHARY KOMAL SUKHDEV	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P

Head of the Zoology Department

Coordinator: _____

Sr. No	Name of Students	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	Total				
26	Ku DAKHAISHA ARUN	P	P																																	
27	Ku DALVI YASHREK RAJENDRA	P	P																																	
28		P	P																																	
31	Ku DESAI RIDDHI RAJESH SHYSHANKAR	P	P																																	
32	Ku DESHM KHROHINI VINOD	P	P																																	
33	DHARARDE PRASHIK RAGHU NATH	P	P																																	
34	Ku DHAWANKAR ISHA UMESH	P	P																																	
35	Ku DHOLI NIANJIRI ANIL	P	P																																	
36	Ku DONKE POONAM SURYABHAN	P	P																																	
37	DORI FAYASH SUNIL	P	P																																	
38	Ku DI BE PRIN ANSHI NAGENDRA	P	P																																	
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40	Ku FULZEI F SUHANI SAHADEO	P	P																																	
41	Ku FUNNE KAMINI GAJANANRAO	P	P																																	
42	Ku GAURKAR SAMIR LILADHAR	P	P																																	
43	Ku GAUTAM ANJALI BHIMISINGH	P	P																																	
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48	Ku GIRI ADITI SHARAD	P	P																																	
49	Ku GIRI DEVENDRA SHYAM	P	P																																	
50	Ku GUPTA MOHINI MAHENDRAKUMAR	P	P																																	
51	Ku HEDAU AYUSHILAXMINATH	P	P																																	

Coordinator: _____

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Head of the Zoology Department

**Shivaji Education Society Amravati's
Science College Congress Nagar, Nagpur
Department of Zoology
Session: 2022-23**

Report On Certificate Course In "Healthcare (Biomedical Science)"

Department Of Zoology, Shri Shivaji Science College, Nagpur conducted certificate course on Healthcare (Biomedical Science). Health of the people is important to aware the society about it. It is characterized as anatomic, physiologic, and psychological integrity to perform work. Health Care System (HCS) infrastructure includes services, facilities, institutions/establishments and organizations. They provide individuals, families and communities with primitive, protective, preventive, diagnostic, curative and rehabilitative measures and services. A Healthcare (Biomedical Science) course typically focuses on the scientific and technical aspects of health and disease, providing students with a comprehensive understanding of the biological and physiological principles underlying medical practice. The Healthcare (Biomedical Science) course integrates foundational knowledge in Life Science, chemistry, and physics with specialized medical and clinical applications. It prepares students for careers in healthcare, research, and related fields.

Certificate course on Healthcare (Biomedical Science) was undertaken by the students of B.Sc. I, II and III of CBZ group, as a part of additional academic curriculum under the guidance of Dr. R. A. Patil Bhagat with view to provide complete knowledge on healthcare. 51 students participated in the ten-week (30 hours) certificate course in healthcare. The Certificate Course in Healthcare (Biomedical Science) course integrates foundational knowledge in Life Science, chemistry, and physics with specialized medical and clinical applications. It prepares students for careers in healthcare, research, and related fields.

ACTION TAKEN: By completing this certificate program, individuals gain the knowledge and skills needed to enhance patient diagnosis, treatment, and overall healthcare delivery

Rupali

Dr. R. A. Patil Bhagat
Coordinator
Healthcare (Biomedical Science)
Department of Zoology

Feedback analysis

How would you rate the overall quality of the course content?



How relevant were the practical sessions in enhancing your understanding of healthcare practices?



How well did the course meet your expectations in terms of knowledge and skills gained?



How likely are you to recommend this course to your colleagues or peers?



Alia A. Haldar
Internal Quality Assurance Cell
(IQAC)
S. S. E. S. A. Science College
Congress Nagar, Nagpur.



N. S. S.
Principal
S. S. E. S. Amravati's
Science College, Nagpur.



Shri Shivaji Education Society Amravati's
**SCIENCE COLLEGE, CONGRESS NAGAR,
NAGPUR**



Accredited with CGPA of 3.51 at 'A+' Grade
A College with Potential for Excellence

CERTIFICATE

Mr./Ku. Payal Chodap is awarded with certificate on successful completion of the course entitled, Certificate course in "Health care (Biomedical science)"

Session 2023-24 under Add-on course conducted for 30 hours from 23/01/2023 to 10/04/2023 by Department of Zoology, SSES's, Science College, congress Nagar, Nagpur 440012.

He/She has passed the Examination with 'B⁺' Grade.

Rupali

Dr. Mrs. R. A. Patil Bhagat
Coordinator, Department of Zoology

M. P. Dhore

Prof. M. P. Dhore
Principal, Science College, Nagpur