KARNATAK UNIVERSITY, DHARWAD
ACADEMIC (S&T) SECTION
ಕರ್ನಾಟಕ ವಿಶ್ವವಿದ್ಯಾಲಯ, ಧಾರವಾಡ
ವಿದ್ಯಾಮಂಡಳ (ಎಸ್&ಟಿ) ವಿಭಾಗ

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NAAC Accredited
'A' Grade 2014

website: kud.ac.in

No. KU /Aca(S&T)/ RIH-290/CBCS/2020-21/ 315 Date: 13 AUG 2020

ಅಧಿಸೂಚನೆ

ವಿಷಯ: 2020–21ನೇ ಶೈಕ್ಷಣಿಕ ಸಾಲಿನಿಂದ ಎಲ್ಲ ಸ್ನಾತಕ ಕೋರ್ಸಗಳಿಗೆ 1 ಮತ್ತು 2ನೇ ಸೆಮಿಸ್ಟರ್ ಸಿ.ಬಿ.ಸಿ.ಎಸ್. ಮಾದರಿಯ ಪಠ್ಯಕ್ರಮವನ್ನು ಅಳವಡಿಸಿರುವ ಕುರಿತು.

ಉಲ್ಲೇಖ: 1. DO No. 1-1/2016(SECY), dt. 10.08.2016.
2. Academic Council Res. No. 2, 21.05.2020.
3. KU/Aca(S&T)/RIH-194/20-21/71, dt. 08.06.2020.
4. KU/VCS/2020-21, dt. 11.08.2020.
5. ಮಾನ್ಯ ಕುಲಪತಿಗಳ ಆದೇಶ ದಿನಾಂಕ 13.08.2020.

ಮೇಲ್ಕಾಣಿಸಿದ ವಿಷಯ ಹಾಗೂ ಉಲ್ಲೇಖಗಳಿಗೆ ಸಂಬಂಧಿಸಿದಂತೆ, 2020–21ನೇ ಶೈಕ್ಷಣಿಕ ಸಾಲಿನಿಂದ ಎಲ್ಲ ಸ್ನಾತಕ ಕೋರ್ಸಗಳ 1 ಮತ್ತು 2ನೇ ಸೆಮಿಸ್ಟರ್‌ಗಳಿಗೆ ಸಿ.ಬಿ.ಸಿ.ಎಸ್. ಮಾದರಿ ಪಠ್ಯಕ್ರಮವನ್ನು ವಿದ್ಯಾವಿಷಯಕ ಪರಿಷತ್ ಸಭೆಯ ಅನುಮೋದನೆಯನ್ನು (Pending Approval of Academic Council Meeting) ನಿರೀಕ್ಷೆಯಲ್ಲಿರಿಸಿ ಅಳವಡಿಸಲಾಗಿದೆ.

ಮುಂದುವರೆದು, ಈ ಮೇಲಿನ ಸಿ.ಬಿ.ಸಿ.ಎಸ್. ಪಠ್ಯಕ್ರಮವು ಕ.ವಿ.ವಿ. ಅಂತರ್ಜಾಲ www.kud.ac.in ದಲ್ಲಿ ಬಿತ್ತರಿಸಲಾಗಿದೆ ಎಂದು ಈ ಮೂಲಕ ತಿಳಿಸಲಾಗಿದೆ.

13/08/2020

(ಡಾ. ಹನುಮಂತಪ್ಪ ಕೆ.ಟಿ)
ಕುಲಸಚಿವರು

ಗೆ,
ಕರ್ನಾಟಕ ವಿಶ್ವವಿದ್ಯಾಲಯದ ವ್ಯಾಪ್ತಿಯಲ್ಲಿ ಬರುವ ಎಲ್ಲ ಅಧೀನ ಹಾಗೂ ಸಂಲಗ್ನ ಮಹಾವಿದ್ಯಾಲಯಗಳ ಪ್ರಾಚಾರ್ಯರುಗಳಿಗೆ.

ಪ್ರತಿ ಮಾಹಿತಿಗಾಗಿ: ಡೀನರು, ಕಲಾ, ಸಮಾಜ ವಿಜ್ಞಾನ, ವಿಜ್ಞಾನ ಹಾಗೂ ತಂತ್ರಜ್ಞಾನ, ವಾಣಿಜ್ಯ, ಕಾನೂನು, ಶಿಕ್ಷಣ ಮತ್ತು ಮ್ಯಾನೇಜಮೆಂಟ್ ನಿಖಾಯ, ಕ.ವಿ.ವಿ. ಧಾರವಾಡ.

ಪ್ರತಿ:
1. ಆಪ್ತ ಕಾರ್ಯದರ್ಶಿಗಳು, ಕುಲಪತಿಗಳ ಕಾರ್ಯಾಲಯ, ಕ.ವಿ.ವಿ. ಧಾರವಾಡ.
2. ಆಪ್ತ ಕಾರ್ಯದರ್ಶಿಗಳು, ಕುಲಸಚಿವರ ಕಾರ್ಯಾಲಯ, ಕ.ವಿ.ವಿ. ಧಾರವಾಡ.
3. ಆಪ್ತ ಕಾರ್ಯದರ್ಶಿಗಳು, ಕುಲಸಚಿವರು(ಮೌಲ್ಯಮಾಪನ) ಕಾರ್ಯಾಲಯ, ಕ.ವಿ.ವಿ. ಧಾರವಾಡ.
4. ನಿರ್ದೇಶಕರು, ಇಂಟರನೆಟ್ ಸೆಕ್ಷನ್, ಪರೀಕ್ಷಾ ವಿಭಾಗ, ಕವಿವಿ, ಧಾರವಾಡ.
5. ಅಧೀಕ್ಷಕರು, ಸಿಡಿಸಿ (ಸಂಯೋಜನೆ) ವಿಭಾಗ, ಕವಿವಿ, ಧಾರವಾಡ

KARNATAK UNIVERSITY, DHARWAD

CBCS SYLLABUS

FOR

BACHELOR OF SCIENCE

ZOOLOGY

(I TO II SEMESTERS)

FROM

2020-21 & ONWARDS

I SEMESTER

PAPER DSCZT 1.1 : NON-CHORDATA

Total Teaching Hours:60hrs

I	INTRODUCTION	02hrs
	Biodiversity and its importance, Principles of animal classification definition of species	
II	KINGDOM PROTISTA (PROTOZOA)	06hrs
	General characters and classification up to classes with suitable examples. Structure and life history of malarial parasite *Plasmodium vivax* and parasitic protozoan *Entamoeba histolytica*	
III	PORIFERA	04hrs
	General characters and classification up to classes with suitable examples. Spicules and canal system in sponges and economic importance of sponges	
IV	CNIDARIA	04hrs
	General characters and classification upto classes with suitable examples. Polymorphism in Cnidaria. Coral reefs and importance of corals	
V	CTENOPHORA	02hrs
	Salient features and systematic position of Ctenophora	
VI	PLATYHELMINTHES	05hrs
	General characters and classification up to classes with suitable examples. Host parasite relationship and parasitic adaptations. Life history of *Fasciola hepatica*	
VII	ASCHELMINTHES	06hrs
	General characters and classification up to classes with suitable examples. Host parasitic relationship and parasitic adaptations – life history of *Ascaris and Wuchereria bancrofti*	
VIII	ANNELIDA	08hrs
	General characters and classification upto classes with suitable examples. *Hirudinea* type study – Externals, setae, digestive system; circulatory system, nervous system, nephridia and reproductive system. Tubicolous polychaetes – *Sabella, Terebella, Chaetopterus,* Ecological adaptations.	
IX	ONYCHOPHORA	02hrs
	Salient features of *Peripatus* and is systematic position	

X ARTHROPODA 10hrs

General characters and classification up to orders with suitable examples. Collection and preservation methods of insects. Beneficial and harmful insects – Integrated Pest Management (IPM)

XI MOLLUSCA 06hrs

General Characters and classification upto classes with suitable examples. Foot and shell in mollusca

XII ECHINODERMATA 05hrs

General Characters and classification upto classes with suitable examples. Water vascular system, Echinoderm larvae

PRACTICAL DSCZP **1.1**

1. Classification of each phylum upto classes with at least one suitable example.
2. Study of Leech/Cockroach- externals, digestive system, nervous system, Jaws, nephridia, ovary of Leech, Mouth parts, salivary glands, spermatheca of cockroach.
3. Mouth parts of insects permanent slides.
4. Study of protozoan culture/Vermiculture.
5. Collection and preservation methods of insects.
   Collection methods: Hand picking, beating, aerial and aquatic nets, Burlese funnel and aspirator. Trapping methods, types; light trap, sticky trap, pitfall Trap, bait, pheromone trap.
   Preservation methods: Dry method (Pinning), Wet method (Liquid preservation) and microscopic preservation (Slide preservation).
   Morphological Identification and Dissection of Insects:
   Digestive, Circulatory, Nervous, excretory and Reproductive system.
6. Insect Culture: Media preparation for collection and culture. (*Drosophila*).
7. Field study.

SCHEME OF PRACTICAL EXAMINATION

1.	Explain the_____system in_____	10
2.	Protozoan culture/ Rectal parasites /nephredia/ ovary/jaw/mouthparts/salivary glands/ Spermatheca	05
3.	Identifications (A to E)	10
4.	Field Study Report	06
5.	Viva	04
6.	Journal	05
	Total	**40**

II SEMESTER
PAPER DSCZT 2.1 : CHORDATA

Total Teaching Hours:60hrs

I INTRODUCTION 05hrs

General characters of the phylum and classification up to sub phyala. Hemichordata, Urochordata, Cephalochordata with suitable examples. Retrogressive metamorphosis in urochordates

II VERTEBRATA 02hrs

General characters of vertebrates and outline classification

III CYCLOSTOMATA 02hrs

General organization and distribution

IV PISCES 06hrs

Chondrichthies: General Characters with suitable examples
Osteichthyes: General Characters with examples Fish migration, types of scales and fins

V AMPHIBIA 04hrs

General characters and classification up to orders with suitable examples

VI REPTILIA 05hrs

General characters and classification up to orders (living reptiles only) with suitable examples. Arcades and fosse in reptiles, Indian snakes, poisonous and non poisonous snakes.

VII AVES 09hrs

General characters and classification. Distinctive features of archaeornithes and neornithes with reference to palaeognathae (flightless birds), Impennae and Neognathae, giving suitable examples. Flight adaptations, beak and foot modifications. Bird migration

VIII MAMMALIA 14hrs

General characters and classification up to orders. Distinctive features of prototheria and metatheria with examples (with special emphasis on monotremes and marsupials). Important characters of primates, Chiroptera, Cetacea, Perissodactyla. Artiodactyla, Carnivora, Rodentia, Lagomorpha and Pholiodota with examples. Rat as type study – (muscular system excluded)

IX OSTEOLOGY 08hrs

Study of endoskeleton of *Frog* and *Rabbit*

X COMPARATIVE ANATOMY 05hrs

Comparative account of Aortic arches, heart, brain and urino-genital systems

PRACTICAL DSCZP **2.1**

1. Classification up to orders with at least one suitable example.
2. Study of Local fish/rat/chick (anyone) externals, Digestive system, Circulatory system, Urinogenital system and brain
3. Endoskeleton of *frog* and *rabbit*
4. Comparative anatomy of heart and brain.

FIELD ORIENTED PROJECTS:

1. Field Study is compulsory
2. Visit to Zoo/forest/sanctuaries/ national park/ surrounding area to study the animal diversity related to project i.e., study the fishes, amphibians, reptiles, birds and mammals.

SCHEME OF PRACTICAL EXAMINATION

1.	Explain the___system in_____	06
2.	Comparative anatomy (anyone)	05
3.	Osteology (any two)	06
4.	Identify and comment on A to D	08
5.	Field study trip	06
6.	Viva	04
7.	Journal	05
Total		**40**

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SCHEME OF THEORY EXAMINATION QUESTION PAPER

B.Sc. Degree Examination Month/Year

Semester

Zoology (CBCS System)

PAPER; DSCZT 1.1 Name of the paper

Time: Three Hours **Maximum: 80 Marks**

Instruction to Candidate

a. Answer all the questions.

b. Draw a neat labelled diagram wherever necessary.

I. Answer any TEN of the following in 3-4 sentences each: **10X2=20**

1-12 Questions

II. Answer any SIX of the following in 10-15 sentences each : **6X5=30**

13-20 Questions

III. Answer the following **3X10=30**

21. a OR b
22. a OR b
23. a OR b

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Suggested Readings:

1. Agarwal V. P. and Dalela R. C. (1975): Textbook of Vertebrate Zoology. Jai Prakashnath Co.
2. Barnes, R.D. (1982): Invertebrate Zoology. Fifth edition
3. Barnes, R.D. (1982): Vertebrate Zoology. Fifth edition
4. Barnes, R.S.K., Calow, P., Olive, P.J.W Golding, D.W. and Spicer, J.I. (2002): The Invertebrates: A New Synthesis, III Edition, Blackwell Science
5. Barrington E. J. W. (1981): Invertebrate structure and Function. ELBS.
6. Dhami P.S. and Dhami J. K. (2000): Chordate Zoology. S. Chand & Co. Dhami P.S. and Dhami J. K. (2000): Invertebrate Zoology. S. Chand & Co.
7. Ekambaranatha Iyer M. and Anantakrishnan T. N. (1990): A manual of Zoology. Vol. I. Invertebrata (Part 1 &2). S. Vishwanathan Pvt. Ltd.
8. Ekambaranatha Iyer M. and Anantakrishnan T. N. (1990): A manual of Zoology. Vol. II. Chordata S. Vishwanathan Pvt. Ltd.
9. Jordan E. L. and Verma P.S. (1976): Chordate Zoology. S. Chand & Co. Jordan E. L. and Verma P.S. (1976): Invertebrate Zoology. S. Chand & Co.
10. Kotpal R. L. (1993): Protozoa- Echinodermata (all volumes). Rastogi Publ. Pough H (2004): Vertebrate life, VIII Edition, Pearson International.
11. Ruppert and Barnes, R.D. (2006): Invertebrate Zoology, VIII Edition. Holt Saunders International Edition